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# FACTS, VIEWS & VISION

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# BEST SELECTED ABSTRACTS ORAL

**ABST-0458 -**

## **Best Selected Abstracts 1**

### **Radiomics and deep endometriosis: extraction and study of radiomic features of active and fibrotic lesions using magnetic resonance imaging**

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#### **Background**

Radiomic is the extraction and analysis of large quantities of high-quality images to translate imaging characteristics (features) into quantitative data. The aim of the study is to develop a model to utilize radiomic analysis to distinguish active deep endometriotic lesions from fibrotic ones using magnetic resonance imaging (MRI).

#### **Methods**

In this monocentric prospective study consecutive patients with deep endometriosis requiring surgical removal of the disease were enrolled. Magnetic resonance was used to map the endometriotic lesions preoperatively. During surgery, the distribution of endometriotic lesions was noted. According to the histological examination of surgical specimens, lesions were classified in fibrotic or active ones. The chosen imaging method for radiomic analysis was T2-weighted magnetic resonance in its axial projection. Radiomic features extraction was performed, focusing on tissue texture analysis, using a Python script. Features scaling was performed and based on certain threshold values chosen on the numerical values of the features, the data are divided through a Decision Tree Classifier, into the classes of interest.

#### **Results**

During study period, 188 histologically confirmed deep endometriotic lesions were identified, consisting of 43 (22.9%) fibrotic and 145 (77.1%) active lesions. After careful evaluation of MRI images by dedicated radiologist, only 14 fibrotic lesions were segmented and included for analyses; 14 active endometriotic lesions were selected as controls using 1:1 matching. Radiomic features that can help to differentiate between active and fibrotic lesions were "information measure of correlation 1", "information measure of correlation 2", "contrast", "inverse difference moment", "angular second moment". Among these, the best features were the "information measure of correlation 1" and the "information measure of correlation 2" showing a Gini importance score of 0.287 and 0.251, respectively.

#### **Conclusions**

Our study is the first in the literature to apply radiomics to magnetic resonance imaging for deep endometriosis. Our radiomic model can help to establish a machine learning algorithm to autonomously distinguish between the two types of lesions and to predict clinical outcomes such as therapy response and post-intervention recurrence.

**ABST-0720 -  
Best Selected Abstracts 1**

**Not all mismatch repair deficient endometrial cancers are created equal: a tertiary centre retrospective experience on a large minimally-invasive staged population with endometrial cancer.**

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**Background**

Approximately 20-30% of all endometrial cancers (ECs) are classified as mismatch repair deficient (MMRd). MMRd ECs are characterized by the loss of at least one of the MMR proteins (MLH1/PMS2/MSH2/MSH6) at immunohistochemistry (IHC), with MLH1-PMS2 and MSH2-MSH6 loss occurring mostly as heterodimers. The MMRd molecular subgroup has been associated with a good-intermediate prognosis (5-year disease-free survival (DFS) 86-87%; 5-year overall survival (OS) 77-81%). However, the value of the different MMR loss patterns has not been explored yet. The aim of the study is to investigate potential associations between different MMRd EC phenotypes, subclassified by IHC, and clinicopathologic features and prognostic outcomes (DFS and OS).

**Methods**

We retrospectively collected data of patients with preoperatively presumed early-stage EC undergone complete minimally invasive surgical staging by total hysterectomy with/without bilateral salpingoophorectomy and sentinel lymph node biopsy with/without pelvic and/or paraaortic lymphadenectomy. MMR status, p53 mutational status, oestrogen and progesterone receptors status (ER, PR) of the tumour were evaluated through IHC assays. The population was divided into three cohorts: 1) loss of MLH1 expression alone or combined with PMS2 and/or MSH2 and/or MSH6 loss of expression (MMRd-group1); 2) loss of expression of MSH2 alone, MSH6 alone, PMS2 alone, or combination of MSH2/MSH6/PMS2 loss of expression (MMRd-group2); 3) positive IHC staining for MLH1, PMS2, MSH2 and MSH6 (MMR-proficient group, MMRp).

**Results**

1156 patients with EC were included: 809 (70%) MMRp, 347 (30%) MMRd. MMRd-group1 and MMRd-group 2 accounted for 255 (73.5%) and 92 (26.5%) patients, respectively. The comparison of MMRd-group1 and MMRd-group2 showed statistically significant higher rates of aggressive clinicopathologic features (>50% myometrial invasion, higher age and higher body mass index) in MMRd-group1. However, when comparing survival outcomes between MMRd-group1 and MMRd-group2, only a trend of the former towards a poorer prognosis was identified (DFS: p=0.348; OS: p=0.636). Interestingly, when comparing MMRd-group1 and the MMRp group, statistically significant differences in both clinicopathologic features (age, ER/PR status, high grade, larger tumours, >50% myometrial invasion, substantial lymph-vascular space invasion, and node positive) and survival outcomes were identified, with the MMRd-group1 displaying aggressive clinicopathologic characteristics and poorer DFS and OS. Interestingly, when the MMRd-group2 was compared with the MMRp group, differences in clinicopathologic features and prognosis were nullified.

**Conclusions**

Among MMRd EC, MMRd-group1 patients are characterized by more aggressive clinicopathologic features compared with MMRd-group2, with a trend towards worse oncologic outcomes. Further studies are needed to better explore the differences of the two MMRd subgroups in terms of survival, with attention to the potential prognostic role of MLH1 promoter hypermethylation in patients with IHC-negative MLH1 expression.

**ABST-0724 -**

**Best Selected Abstracts 1**

**How to perform bilateral sentinel lymph node biopsy in vulvar cancer with indocyanine green by video-endoscopic approach**

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**Background**

The standard surgical treatment of vulvar carcinoma < 4 cm without clinical or radiological suspicion of lymph node metastases consists of resection of the vulvar tumour with negative margins with mono- or bilateral sentinel lymph node biopsy performed by inguinal incision. Video-endoscopic inguinal sentinel lymph node (SLN) biopsy with indocyanine green (ICG) in vulvar cancer has been previously described. However, ICG induces fleeting mapping of lymphatic pathways making bilateral SLN mapping more challenging. The aim of this video is to show how to perform bilateral inguinal SLN biopsy in vulvar cancer with indocyanine green by video-endoscopic approach.

**Methods**

In this video, we present the case of an 81-year-old patient with a 4 cm tumour involving the left labium minus, extending to the clitoris, crossing the midline. Bilateral inguinal SLN biopsy was performed by video-endoscopic approach using indocyanine green along with radioactive tracer. The surgery was carried out in an Italian Comprehensive Cancer Center.

**Results**

The vulvar–vaginal examination under general anaesthesia reported vulvar lesion of 4 cm crossing the midline. The day before the surgery, technetium 99m (99mTc) nanocolloid as a radioactive tracer was injected in the peri-tumoral area and SPECT/CT-scan was performed showing two SLNs on the right and one SLN on the left side. The procedure began with the placement of a 15 mm main trocar distal to the apex of the femoral triangle and two accessory trocars on the anterior surface of both thighs. The working space was developed, and a blunt dissection was performed up to the inguinal ligament from both sides. Indocyanine green was then injected in the four cardinal points around the tumour mass. The lymphatic tissue was identified from the fascia lata with a combination of blunt and sharp dissection up to the fossa ovalis. SLNs were bilaterally visualized with fluorescence near-infrared detection and then resected. Gamma camera was used to double check that the ones removed were the same SLNs identified by the ICG. There were no intra- or post-operative complications. Histology of bilateral SLN showed macro-metastases and patient underwent bilateral systematic inguinofemoral lymphadenectomy.

**Conclusions**

With this video we showed how to perform bilateral sentinel lymph node biopsy in vulvar cancer with indocyanine green by video-endoscopic approach. To minimize the fleeting uptake of indocyanine green, it is necessary to perform the ICG injection after bilateral positioning of the

trocars and development of surgical spaces. Double check with gamma camera is still necessary as radioactive tracer is still considered the standard approach for SLN biopsy in vulvar cancer.

<https://player.vimeo.com/video/954670654?autoplay=1>

**ABST-0073 -  
Best Selected Abstracts 1**

**Severe dysmenorrhea in adolescents needs specific non-invasive ultrasound evaluation to detect endometriosis and to start adequate medical treatment**

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**Background**

To diagnose endometriosis in adolescents (12-20 years old) with severe dysmenorrhea through specific ultrasonographic findings and to correlate the symptoms to its different forms: ovarian, deep infiltrating endometriosis (DIE), and adenomyosis.

**Methods**

This study included 267 women aged 12–20 years old referred to our Gynecological Ultrasound Unit between January 2018 and December 2023 with severe dysmenorrhea and a visual analogue scale (VAS) score  $\geq 7$ . 2D, 3D, and power Doppler ultrasound (US) pelvic examination (transvaginal or transrectal in pre-sexually active girls) was performed on all adolescents. Medical history and symptoms were collected routinely for each adolescent before the scan. All possible locations of endometriosis, isolated or combined occurrence, were evaluated, and recorded using an ultrasound (US) dedicated mapping sheet. Painful symptoms besides dysmenorrhea associated with endometriosis or adenomyosis were evaluated by VAS and correlated to the different endometriosis forms.

**Results**

At least one ultrasound (US) endometriosis feature was identified in 105 (39.3%) patients, while the pelvic ultrasound (US) of 116 (43.4%) was normal despite the referred dysmenorrhea. Of the 105 adolescents with endometriosis, ovarian endometrioma was found in 26 girls (24.8%), and 14 (13.3%) had only an isolated endometrioma. Adenomyosis was detected in 47 (44.8%) patients, and 23 (21.9%) showed its isolated findings. Posterior DIE was found in 60 (57.1%) patients, and uterosacral ligament (USL) fibrotic thickening was found in 58 (55.2%). In 31(29.5%) adolescents, the USL lesion was completely isolated. The combined occurrence of dysmenorrhea with dyspareunia, bowel symptoms, and heavy menstrual bleeding increases the presence of endometriosis up to 55%, 56%, and 46%, respectively.

## **Conclusions**

In adolescents with severe dysmenorrhea, the US-based detection rate of pelvic endometriosis was 39%. USL fibrotic thickening and mild adenomyosis are often the only findings, so an accurate pelvic US scan can provide an early diagnosis by identifying small endometriotic lesions. Adolescents with dysmenorrhea should be referred to an expert sonographer to minimize the delay between the onset of symptoms and diagnosis.



**ABST-0174 -  
Best Selected Abstracts 1**

**Impact of Definitive Uterine Artery Occlusion on Ovarian Reserve Markers in Laparoscopic Myomectomy: A Randomized Controlled Trial with Two-Year Follow-Up.**

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**Background**

Does definitive occlusion of uterine arteries have a short- or long-term impact on ovarian reserve in reproductive age women undergoing laparoscopic myomectomy?

**Methods**

We conducted a randomized controlled trial with a two-year follow-up evaluating the effect of definitive occlusion of uterine arteries on ovarian markers via sequential measures of AMH levels and AFC by ultrasound assessment.

Women with symptomatic leiomyoma type FIGO 3 to 6 scheduled for laparoscopic myomectomy were proposed to be included between July 2015 and October 2021. Patients were randomized into the uterine artery occlusion (UAO) group (laparoscopic myomectomy with preventive occlusion of uterine arteries) and the no-UAO group (laparoscopic myomectomy without occlusion of uterine arteries but intramyometrial injection of a vasoconstrictor).

Serum AMH levels and AFC were evaluated at T0 and followed at 1 month (T1), 3 months (T3), 6 months (T6), 12 months (T12) and 24 months (T24) after surgery. Intraoperative blood loss, leiomyoma recurrence and adenomyosis occurrence were evaluated comparing pre- and post-operative findings. Pregnancies and live births were also monitored.

**Results**

A total of 58 women were included. In both groups, patients did not differ in their baseline characteristics in terms of age, body mass index, ethnicity, parity, wish to become pregnant, hormonal treatment, leiomyoma number and size, baseline haemoglobin levels, menstrual flow, dysmenorrhea score, baseline serum AMH levels and AFC values.

The mean operative time was similar in between both groups. Mean blood loss during surgery was on average 138 ( $\pm 104$ ) ml in the UAO group versus 436 ( $\pm 498$ ) ml in controls ( $p < 0.001$ ). The difference in haemoglobin levels between before and after surgery was significantly higher in the no-UAO group 21.8 ( $\pm 12.7$ ) g/l compared with the UAO group 14.8 ( $\pm 8.9$ ) g/l ( $p = 0.02$ ).

We did not record any complication in the UAO group but one haemorrhage requiring blood transfusion in the control group.

Regarding clinical symptoms, most women had decreased menstrual flow at the last follow-up visit (24 months) compared to baseline in both group improvement of dysmenorrhea followed the same

trend with a reduction in pain levels in both groups. Risk of leiomyoma recurrence was found similar between both groups.

Serum AMH levels were similar between groups at all times (T1, T3, T6, T12 and T24) and non-inferiority of preventive occlusion was demonstrated with a non-inferiority margin of  $-3.5\text{pmol/L}$  ( $0.5\text{ng/ml}$ ). No effect of intervention was found for AFC scores.

The pregnancy rate was not different between groups.

### **Conclusions**

Preventive uterine artery occlusion during laparoscopic myomectomy does not compromise ovarian reserve markers and can be safely used to improve perioperative bleeding control in women of reproductive age.

Incorporating uterine artery occlusion as a preventive measure during laparoscopic myomectomy may enhance the safety of the procedure.

**ABST-0396 -  
Best Selected Abstracts 1**

**Unleash the Robot: Same Day Hysterectomy for Every Woman**

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**Background**

Robotic-assisted surgery (RAS) has revolutionised the landscape of surgical care in gynaecology and beyond, offering several advantages over traditional laparoscopic approach for both service users and surgeons. One notable advantage of RAS is the ability to facilitate an endoscopic approach to major pelvic surgery for patients to whom it may previously have been denied, due to characteristics such as uterine size or body habitus, alongside offering same-day discharge.

Our case series aims to highlight that robotic surgery has the potential to improve access to surgical treatment for all women regardless of surgical complexity with the opportunity to return home on the same day.

**Methods**

A prospective case series of robotic-assisted hysterectomy procedures undertaken in University Hospital Crosshouse, Scotland over the period July 2023 to May 2024. All patients who underwent robotic-assisted hysterectomy for benign conditions were included with information gathered on indication; BMI; functional status; co-morbidity; length of operating time; length of stay; blood loss and any post procedure complications or re-admission to hospital. No patients were excluded from the study.

**Results**

87 robotic hysterectomy procedures were performed, all with the intent of same day discharge. Discharge on the day of surgery was achieved in 82 (94%) of patients. Only 5/87 (6%) patients required hospital stay of 1-3 nights due to social reasons (3); pre-existing neurological condition (1); and one due to prolonged surgical and anaesthetic time secondary to complexity of procedure. There were no conversions to laparotomy.

Indication for robotic-assisted hysterectomy were for benign gynaecological conditions with most common indication due to fibroids with largest being a 36-week uterus weighing 2.9kg. Patients' age ranged from 30 to 78 years old with no significance or impact for same day discharge. Functional status was measured by DASI score with patients ranging from very poor functional status (DASI 13.6) to excellent functional status (DASI 58.2) which did not affect outcome of same day. Patient BMI ranged from 18 to 48. 1 patient re-presented after discharging due to minor bleeding from a port site which was dressed, and the patient discharged with a satisfactory haemoglobin. 1 patient re-presented with constipation. Neither of these patients were re-admitted.

**Conclusions**

Robotic-assisted hysterectomy has revolutionised the field of gynaecological surgery, providing several benefits for both patients and surgeons. The option of same-day discharge following this procedure further enhances patient satisfaction, reduces hospitalisation costs, and promotes efficient resource utilisation. By sharing our data, we hope to inspire surgeons to think beyond the

status quo and recognise that very high rates of ambulatory hysterectomy are achievable regardless of patient characteristics, and the most surgically complex patients are those who will derive the greatest benefit from same day discharge.

**ABST-0428 -  
Best Selected Abstracts 1**

**Changes in the expression of endometrial receptivity in infertile women with congenital uterine malformations undergoing hysteroscopic metroplasty**

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**Background**

To evaluate the effect of hysteroscopic metroplasty on the expression of endometrial receptivity genes, specifically the HOX gene family and LIF gene, in infertile women undergoing metroplasty for the treatment of septate uterus or dysmorphic uterus. Also, to evaluate the correlation between changes in the gene expression profile and obstetrical outcomes.

**Methods**

Infertile women with a diagnosis of congenital Müllerian anomalies (dysmorphic uterus and septate uterus) were enrolled. Immediately before starting the metroplasty, an endometrial biopsy was performed; a second endometrial biopsy was obtained two months after the initial procedure. Evaluation of the expression of molecular markers belonging to the HOX gene family (HOXA 10, HOXA 11) and the LIF gene before and after hysteroscopic metroplasty, through real-time PCR, was performed.

**Results**

A total of 44 women were enrolled. A higher expression of all three genes (HOXA 10, HOXA 11 and LIF) were observed on the specimens obtained 2 months after the hysteroscopic metroplasty. The overall clinical pregnancy rate was 58% (24/41) in women who underwent metroplasty, and the term-delivery rate was 71% (17/24). Upregulation of endometrial HOXA 10 and HOXA 11 expression levels after hysteroscopic metroplasty was confirmed in patients who conceived; however, upregulation of LIF expression levels was not different. A higher expression of HOXA 10, HOXA 11 and LIF was observed in the subgroup of women who had spontaneous pregnancy while higher expression of HOXA 10 and HOXA 11 and a lower expression of LIF was observed in the subgroup of women who conceived after in vitro fertilization.

**Conclusions**

Hysteroscopic metroplasty was associated with a significant change in the expression -profile of endometrial receptivity genes. Nevertheless, as our study has some limitations, any firm conclusions about a possible relationship between uterine anatomical improvement after metroplasty and an increase in endometrial receptivity could not still be drawn.

**ABST-0548 -  
Best Selected Abstracts 1**

**Prospective randomised controlled trial for hysterectomy: vNOTES versus Laparoscopy**

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**Background**

Objectives: To demonstrate the non-inferiority of vNOTES total hysterectomy for benign lesions compared with conventional laparoscopy in a prospective randomized controlled patient blind bicentric study

In France, 56 460 hysterectomies were performed in 2022, 80 % of them for benign lesions. Laparoscopy remains the main approach with 34 %, pure vaginal route 17,9 %, robotics 10,3 %. Nevertheless, 24 % of hysterectomies were performed by laparotomy. Baekeland J in 2018, published the first randomized controlled trial, the HALON study which concerned 35 patients in each arm and was done by a unique expert surgeon in vNOTES and laparoscopy. Since this study, there is no other randomized controlled study published comparing vNOTES to laparoscopy. vNOTES combines the advantages of the vaginal route, with its absence of abdominal incision and of laparoscopic vision, pushing the limits of minimally invasive surgery making it possible to do associated adnexal surgery, adhesiolysis, hysterectomy in nulliparous patients or no descent uterus. vNOTES make easier hysterectomy in obese patients as well as for bulky uterus. For all these benefits, vNOTES, in the future, may reduce laparotomies.

**Methods**

This is a non-inferiority, randomized, single-blind, bicentric trial being conducted from September 2021 to August 2024, and including 140 patients. Patients with indication of total hysterectomy for benign lesions are included. Contraindications for vNOTES include a history of rectal surgery, recto-vaginal endometriosis, inability to be in Trendelenburg position or virginity. Complications collected include bleeding > 500 mL, urinary tract injury, digestive tract injury, infections, vaginal scar separation or parietal complications. Conversions are recorded, as well as all intra- or postoperative treatments using the Clavien-Dindo classification. Quality of life auto-questionnaires are filled out pre and post operatively.

**Results**

At the time of the submission of the abstract, 138 of the expected 140 patients have been included and operated. The results of the study will be presented during the ESGE 2024 congress. All the operations were done by 11 surgeons in the 2 centres, a University Hospital and a General Hospital. Six surgeons did exclusively laparoscopy and 5 surgeons did both vNOTES and laparoscopy. Three surgeons were considered young laparoscopist or vNOTES surgeon and joined the study after having done 25 cases of either technique for their learning curve.

## **Conclusions**

This study is the largest prospective randomized study to date comparing vNOTES and laparoscopy for total hysterectomy. The strength of this study is that it is a multicentric and the patients have been operated by experts in laparoscopy and vNOTES as well as by younger and less experienced in vNOTES and laparoscopy but nevertheless having done their learning curve. This is a 'real-life' study in a University Hospital and a General Hospital in France.

**ABST-0611 -  
Best Selected Abstracts 1**

**Is there a reason to be scared being operated on by gynaecologic residents? A propensity score matched analyses of total laparoscopic hysterectomies**

*Karin Rodewald<sup>1</sup>, Joscha Steetskamp<sup>1</sup>, Roxana Schwab<sup>1</sup>, Annette Hasenburg<sup>1</sup>, Mona W. Schmidt<sup>1</sup>*  
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**Background**

It is still common practice to learn even complex laparoscopic procedures such as a total laparoscopic hysterectomy (TLH) directly in the operating room. As the number of outpatient procedures in Germany continues to rise, the surgical education of gynaecologic residents/fellows is often inadequate. Furthermore, patients frequently request to be operated on by experienced surgeons. This study aimed to assess whether the safety and surgical efficiency of TLHs performed by residents/fellows are compromised.

**Methods**

All patients undergoing a TLH ( $\pm$  adnexectomy) at the Department of Gynecology and Obstetrics of the University Medical Center Mainz between 2018-2023 were included in the analysis and compared based on the experience of the surgeon (attending gynaecologist vs fellow/resident). Radical hysterectomies or hysterectomies as part of a larger procedure were excluded. A propensity score-matched analysis (full match) was performed adjusting for age, uterine weight, prior abdominal surgical procedures and type of procedure (eg. with adnexectomy).

**Results**

A total of 169 patients were included in the study. The operative time was significantly longer when performed by a fellow/resident compared to an attending gynaecologist (-18.3 minutes (SE 5.7,  $p < 0.001$ ). This corresponds to a 17.6% increase in operative time when performed by a fellow/resident. No significant differences were seen for postoperative complications (RR 1.44, 95% CI: 0.46-4.27,  $p = 0.555$ ) or length of hospital stay (4.3 days (SE 0.12) vs 4.2 days (SE 0.14),  $p = 0.24$ ). A statistically significant risk of relevant intraoperative complications could not be confirmed due to the very low incidence (1 vs 2 per group).

**Conclusions**

Despite prolonged operative times, TLHs performed by gynaecologic residents or fellows under the supervision of an attending gynaecologist have proven to be safe for patients. To reduce the significantly prolonged operative times and to ensure the effective use of operating room capacities and surgical staff without compromising surgical education, structured surgical skills laboratory training should be included in residency programs.



**ABST-0758 -  
Best Selected Abstracts 1**

**Laparoscopic cerclage: A step-by-step approach**

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<sup>2</sup>*Birmingham Women's Hospital, Endometriosis centre, Birmingham, United Kingdom*

**Background**

We present a technique for laparoscopic transabdominal cerclage practiced in the UK. There is an increasing demand for a minimal access approach for this procedure. It is technically challenging and requires a high skill set. Currently there are limited centres in the UK offering these services. Many patients are referred to have this procedure done when they have had previous mid-trimester losses, cervical surgery for cancer and if vaginal cerclage's have failed.

**Methods**

We demonstrate a step-by-step approach to performing the procedure including anatomical landmarks, tissue handling, use of instruments and in particular the use of an endoclose needle in placing the suture around the cervix. We also demonstrate the closure techniques of peritoneal layers as well as well as common pitfalls and steps where complications can occur. We also discuss the management of cases with pregnancy complications and miscarriages.

**Results**

Patients undergoing this procedure in our local unit undergo a same day discharge service. There is a very low complication rate with this procedure and very high patient satisfaction. It is a permanent suture, and most patients will only remove once childbearing complete. This video demonstrates a novel approach to placement of suture around the cervix at the level of the internal os, which is associated with reduced localised reaction and reduced operating times.

**Conclusions**

This is a successful technique that has shown to improve pregnancy outcomes for patients. It is technically challenging, however with more awareness and training we can enable more laparoscopic surgeons to develop the skill to perform this procedure. The risks and benefits of the cerclage need to be discussed with the patient and any alternate reasons for recurrent miscarriage need to be excluded. We usually work in conjunction with our recurrent miscarriage service and place emergency cerclage in pregnant patients after their dating scans.

**ABST-0762 -  
Best Selected Abstracts 1**

**Success of outpatient hysterectomy: V-NOTES Vs Vaginal hysterectomy**

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**Background**

Vaginal hysterectomy is the approach of choice to perform a hysterectomy for benign uterine conditions. Because of its best surgical outcomes and its low rate of post operative complication, vaginal hysterectomy is suitable for an outpatient procedure. Nowadays outpatient vaginal surgery is known to improve patient's satisfaction and to be a budgetary asset for hospitals. Despite all its strengths, the vaginal approach for hysterectomy can be limited for large or non-prolapsed uteri or even for the control of the uterine and ovarian vessels. The V-NOTES (Transvaginal natural orifice transluminal endoscopic surgery) technique is increasingly used in France and allows us to clear those limitations but to keep advantages of the vaginal approach. Many studies suggest that V-NOTES technique is reliable and safe as an outpatient hospitalization. But studies that compare V-NOTES technique with the standard vaginal approach, which is the gold standard technique, in the context of outpatient procedure rely on short cohorts.

The main objective was to assess the success of outpatient vaginal hysterectomy by comparing V-NOTES technique and standard vaginal hysterectomy.

The second objectives were to compare between those 2 techniques the pre and post operative complication and other indications of surveillance that can restrict the outpatient procedure.

**Methods**

This was a retrospective study of patients that had a vaginal hysterectomy for benign conditions from vaginal standard technique or V-NOTES technique at Lille University Hospital between 2016 and 2022. All those procedures were planned as outpatient hospitalization.

**Results**

373 patients were included, 204 in the V-NOTES group and 169 in the standard vaginal approach group. The outpatient success rate was not dissociated between the 2 groups: 83.3% in the V-NOTES group and 79.9% in the standard vaginal approach group ( $p = 0.39$ ). There were no differences either between the 2 groups for the rate of pre and post operative complications or other factors that can restrict the outpatient procedure. In the V-NOTES group there were significantly more nulliparous women ( $p < 0.002$ ), more large uteri defined by a uterus weighing more than 280g ( $p < 0.001$ ) and more adnexectomy at the same surgical time, compared with the standard vaginal approach group.

**Conclusions**

V-NOTES hysterectomy seems to be an innovative approach for mini-invasive surgery. This technique can be proceeded as a safe outpatient procedure without any difference with the approach of reference. This technique allows us to avoid standard vaginal hysterectomy limitations and to have a better access to fallopian tubes. Moreover, it seems to be promising for nulliparous women or large uteri.

**ABST-0387 -  
Best Selected Abstracts 1**

**AMH levels after laparoscopic therapy of ovarian endometrioma: sclerotherapy vs cystectomy.  
Preliminary data of prospective randomized study.**

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**Background**

To present preliminary data of prospective randomized study comparing two methods of laparoscopic treatment of endometrioma - sclerotherapy and cystectomy.

**Methods**

Evaluation of a group of women with unfinished reproductive plans treated for ovarian endometrioma according to randomization either with laparoscopic sclerotherapy with 96% ethanol or cystectomy in Endometriosis Centre, Institute of Mother and Child Care, Prague. All patients underwent transvaginal ultrasound examination prior to the surgery with no suspected malignancy according to IOTA simple rules. We evaluated AMH levels, recurrence rates, peroperative and postoperative complications and pregnancy rates in both groups.

**Results**

A total of 40 patients were included in our study from January 2023 to November 2023 and finished 6 months follow up. We observed recurrence of endometrioma in one case in the sclerotherapy group, in three cases in the cystectomy group. The decrease of AMH level at 6months after surgery in the sclerotherapy group was by 26,6% (-24% to 79%), and 41% (7% to 65%) respectively in the cystectomy group. Three patients got pregnant (two from the sclerotherapy group and one from cystectomy group). We did not observe any complications in the study group.

**Conclusions**

To conclude, laparoscopic ethanol sclerotherapy is a promising minimally invasive procedure for treating endometriomas with at least comparable effect, if not better, on ovarian reserve measured by AMH. Our study is ongoing, and we are currently in the middle of the recruitment. Patients are being followed up until 12 months after surgery when last AMH levels are taken.

**ABST-0504 -  
Best Selected Abstracts 2**

**Efficacy of Virtual Reality as a pain and anxiety distraction strategy on office hysteroscopy**

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**Background**

Despite the high-resolution rates of office hysteroscopy (OH), many women still experience anxiety and pain during the procedure. being the primary cause of therapeutic failure. With the aim of improving patient tolerance and comfort, different non-pharmacological strategies have been evaluated in the last decades, such as music therapy, hypnosis or virtual reality (VR). Some studies have demonstrated that the use of VR decreases perceived pain during OH, but none of them studied its efficacy in relation with patient anxiety levels. Additionally, there is limited data on objective stress indicators, such as changes in skin conductance.

**Methods**

A parallel-group, prospective randomized clinical trial was conducted to evaluate the effect of VR on pain and anxiety levels during OH. A total of 159 patients were recruited between two hospital centres. Patients were randomly assigned in a 1:1 ratio to either a control group (standard-care OH) or a VR group (pre-procedural mindfulness VR session followed by OH under a VR environment). All procedures were performed in an office setting, with vaginoscopy technique, low calibre hysteroscopes, and without anaesthesia.

Anxiety level was assessed through the STAI questionnaire, a validated 20 item self-report assessment tool. Visual analogue scale pain score and blood pressure were collected before and 5 minutes after the procedure. Heart rate and skin conductance were continuously monitored throughout the procedure.

Intervention (n=79) and control groups (n=80) were homogeneous and comparable to each other in all baseline variables.

**Results**

The median age of the participants was 44 (21-68) years. 75.8% were on reproductive age and 24.2% were menopausal. 37.1% were nulliparous while 62.9% had one or more pregnancies. The most frequent procedure was polypectomy (52.5%) followed by myomectomy (10.8%).

The intervention group reported lower pain levels during (VAS: 5.59 vs. 4.51, p=0.013) and five minutes after the procedure (VAS: 3.33 vs. 2.09, p=0.001). However, no significant differences were found in blood pressure, heart rate, or skin conductance levels. In a stratified analysis, no significant correlation was observed between STAI scores and pain scores during or after the procedure.

Both groups reported high satisfaction with the overall procedure (88% control vs. 92% intervention, p=0.882). Additionally, 90% of patients on the intervention group reported being satisfied or very satisfied with the use of RV, and 86% were willing to use VR for future procedures.

**Conclusions**

VR offers a reduction in patients' pain perception during OH, although we have not seen improvements in objective parameters such as blood pressure or skin conductance. Therefore, VR could be offered to improve comfort and patients' satisfaction during OH.

**ABST-0288 -  
Best Selected Abstracts 2**

**Retrospective Cohort Analysis on Robotic-Assisted Laparoscopic Myomectomy vs Laparoscopic Myomectomy.**

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**Background**

Uterine fibroids are benign tumours originating from the proliferation of smooth muscle cells within the uterine wall and represent the most prevalent non-cancerous tumours affecting women. This study aimed to compare robotic-assisted laparoscopic myomectomy (RALM) with laparoscopic myomectomy (LM) in terms of operative times, intraoperative estimated blood loss, pre- and post-haemoglobin levels drop, and length of hospital stay.

**Methods**

From December 2022 to March 2024, we retrospectively collected data on 70 patients who underwent RALM with the da Vinci Xi surgical system (Intuitive Surgical, USA) compared to those who underwent LM in the Gynaecological Unit of DAI Materno-Infantile of Azienda Ospedaliera Universitaria Federico II in Naples, Italy. All patients aged between 34 and 49 years old and a clinical and ultrasonographic and/or MRI diagnosis of intramural/subserous uterine fibroids (FIGO 3-6 Leiomyoma Subclassification System) (single or multiple fibroids) with symptoms such as menorrhagia and/or pelvic pain. Exclusion criteria were age >50 years old, oncological disease, high anaesthetic risk (ASA 3–4), fibroid size larger than 10 cm that did not allow removal through MIS (mini-invasive surgery), significantly enlarged uterus reaching the transverse umbilical line and ongoing pregnancy. Data on peri-operative outcomes, including operative time for myomectomy (OTM), overall operative time (OOT), intraoperative estimated blood loss (EBL), pre- and post-operative haemoglobin levels, and length of hospital stay were analysed.

**Results**

The OTM in the presence of > 5 myomas was 59 [52–65] vs 69 min [61–96] ( $p < 0.001$ ) for RALM and LM groups, respectively. Moreover, also in presence of  $\leq 5$  myomas, a difference was observed in the RALM group 48[43–55] compared to the LM group 53[50–61] min ( $p = 0.07$ ). The OOT was also statistically significant for Group A compared to Group B (83[65–93] vs 72[56–110] min,  $p < 0.001$ ). There were no significant differences between the two groups in terms of pre- and post-operative haemoglobin levels and EBL ( $p = 0.178$ ). Group A demonstrated a notably shorter hospital stay 1.2 [1–2] days compared to Group B 2.9[3–3.75] days ( $p = 0.007$ ).

**Conclusions**

Our study suggests potential advantages of RALM over LM in terms of reduced operative times and shorter hospital stays. The standardized approach and extensive surgical experience likely contributed to the favourable outcomes of RALM. However, further randomized multi-institutional studies with larger cohorts are warranted to validate our findings and elucidate the broader implications of robotic surgery in gynaecological practice.

**ABST-0233 -**

**Best Selected Abstracts 2**

**Physician preferences and the role of the carbon footprint in the decision-making process of the application of a surgical technique: a discrete choice experiment**

*Kim Van Nieuwenhuizen<sup>1</sup>, Hans Friedericy<sup>2</sup>, Anne van der Eijk<sup>3</sup>, Elske Akker-van Marle<sup>4</sup>, Frank Willem Jansen<sup>5</sup>*

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**Background**

Environmental sustainability is becoming increasingly important in healthcare. While our primary aim is to promote health and well-being, certain practices can inadvertently contribute to environmental harm, ultimately undermining the health of both people and the planet. The healthcare sector alone is responsible for 4-5% of the global carbon footprint. Despite operating rooms (ORs) occupying only 6% of hospital space, they generate 20-30% of hospital waste. This study aims to examine the preferred factors influencing the selection of surgical techniques and assesses the significance of the carbon footprint in this decision-making process. Additionally, it provides insights into attitudes and behaviours regarding climate change.

**Methods**

Physicians, including surgeons, gynaecologists, and urologists with expertise in minimally invasive surgery (MIS) from the Netherlands and Belgium, were invited to participate in an online questionnaire. They were tasked with evaluating a random set of 28 surgical techniques and selecting their preferred option from two presented techniques using choice-based conjoint analysis. Additionally, participants were required to provide insights into their attitudes and behaviours regarding climate change, sustainable practices, as well as identify perceived barriers and opportunities.

**Results**

A total of 95 physicians completed the questionnaire. Patient preferences emerged as most important in the choice of a surgical technique (RI 28.04 [95% Confidence Interval (95% CI) [19.65-36.44]], followed by postoperative stay (RI 20.89 [14.14-27.63]), physician's experience (RI 15.67 [10.33-21.02]), costs (RI 13.28 [9.53-17.03]), and carbon footprint (RI 7.55 [3.07-12.03]). The majority of the respondents (84/95; 88%) were concerned about the threat of climate change. While most reported altering their personal behaviour due to these concerns (77/95; 81%), fewer made changes in their professional life (42/95; 44%). Additionally, most respondents believe physicians have the responsibility to be aware of the environmental impact of surgery (77/95; 81%), yet only a part feels

adequately equipped to mitigate this impact (31/95; 32%). The primary barriers identified are time constraints (62/95; 65%), costs (61/95; 64%) and inadequate training and information (54/95; 57%).

## **Conclusions**

In the choice of a surgical technique, patient preferences are considered paramount among surgeons, gynaecologists, and urologists, while the carbon footprint is given less priority. Consequently, efforts should be directed towards making surgical techniques inherently sustainable, alleviating the burden of choice from physicians. Nonetheless, there is acknowledgment of the urgent need to embrace sustainability and a willingness to transition accordingly. However, various barriers hinder progress in this direction. Addressing these obstacles is crucial, as individual behaviour significantly influences the carbon footprint and can therefore be mitigated. By doing so, surgery can become more sustainable, thereby positively impacting societal health.



**ABST-0242 -  
Best Selected Abstracts 2**

**Advancing insights into uterine innervation: computer-assisted dissection and immunohistochemistry in the exploration of benign gynaecological pelvic pathologies**

*Audrey Astruc<sup>1</sup>, Léa Roux<sup>2</sup>, Pascale Bellaud<sup>3</sup>, Maelle Guillout<sup>3</sup>, Guillaume Legendre<sup>1</sup>, Krystel Nyangoh Timoh<sup>2</sup>*

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**Background**

Uterine innervation plays a crucial role in pain mechanisms associated with conditions such as endometriosis and adenomyosis. This study focuses on the detailed examination of uterine innervation, both normal and altered, in women suffering from painful benign gynaecological pathologies. We employ an innovative technique called Computer-Assisted Dissection (CAD) for this analysis.

**Methods**

Samples from hysterectomy specimens were collected, fixed in 4% formalin, and embedded in paraffin. 4-micron sections were prepared to identify various types of nerve fibres in different layers and portions of the uterus through immunostaining techniques, including markers for sympathetic, parasympathetic, somatic, sensory, erectile, sexual, and vasodilator innervation.

Immunofluorescence technique was also realized. Automated analysis by AI via QuPath software provided an objective quantification of nerve percentages in specific areas. Collected data include clinical information, medical and surgical history, quality of life, and pelvic pain symptoms assessed using specific questionnaires (ENDOPAIN 4D, CONVERGENCE PP, DN4, SF36, GICLI, FSFI, ICIQ).

**Results**

The study involved thirty-three patients who underwent hysterectomy due to endometriosis or adenomyosis, associated with pelvic pain, along with five hysterectomies from brain-dead donors considered as the control group. Women experiencing pelvic pain reported a mean Visual Analog Scale (VAS) score for dysmenorrhea of 7 +/- 2, with an average duration of suffering of 18 +/- 12 years. Additionally, 91% reported a worsening of pain over time, significantly affecting their social life (mean SF36 score of 44/100 +/- 26), moral well-being (48/100 +/- 17), and energy levels (29/100 +/- 19). Other prevalent pain symptoms included dyspareunia (91%) with minimal impact on sexual activity (FSFI score of 45 +/- 27 SD), painful bowel movements (95%), and occasional urinary symptoms, primarily bladder filling-related.

Our preliminary findings from S100 immunolabeling indicate that the cervix harbours the majority of uterine innervation (41% vs 48% in patients with pelvic pain). However, patients with pelvic pain exhibited significantly more innervation in the isthmus (13% vs 24%, p: 0.027) and less in the corpus (35% vs 15%, p: 0.05). Nervous density was slightly higher in pelvic pain patients, particularly in the cervix ( $6.15E-03 \pm 3 \text{ } \mu\text{m}^2$  vs  $2.89E-03 \pm 1 \text{ } \mu\text{m}^2$ , p: 0.01) and isthmus ( $3.28E-03 \pm 1.7 \text{ } \mu\text{m}^2$  vs  $1.96E-03 \pm 1 \text{ } \mu\text{m}^2$ , p: 0.08). Additionally, higher innervation was observed in the myometrium of pelvic pain patients across all regions of the uterus independently of endometriosis or adenomyosis.

## **Conclusions**

The application of CAD technique proved feasible and allowed for quantitative analysis. Our initial results demonstrate specific uterine innervation in these patients with pelvic pain associated with endometriosis and adenomyosis. This study opens new perspectives for understanding the underlying mechanisms of pelvic pain and could have a significant impact on the development of future therapeutic strategies.

**ABST-0491 -  
Best Selected Abstracts 2**

**Development and evaluation of a realistic and cost-effective uterus model for total laparoscopic hysterectomies**

*Mona Wanda Schmidt<sup>1</sup>, Anna Maria Brechter<sup>1</sup>, Christoph Dold<sup>1</sup>, Maria Schröder<sup>1</sup>, Lina Schiestl<sup>1</sup>, Roxana Schwab<sup>1</sup>*

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**Background**

The importance of continuous training outside of the operating room is growing in light of restricted operating room capacities and financial pressure. However, adequate training models for complex laparoscopic tasks are often unrealistic or too expensive to use for continuous training. Thus, we aimed to create a realistic and cost-effective training model for total laparoscopic hysterectomies (TLH).

**Methods**

A uterus shaped mold was created using 3D printing technology and filled with different materials to develop a uterus model including both adnexa and peritoneum. To evaluate the model, gynaecologists with varying experience performed a TLH on the newly developed uterus model. Subjective experience, operative time as well as performance scores, rated by a blinded trained rater, were compared between those with <10 prior TLHs (Novices) and those with ≥ 10 prior TLH (Experts) using the Mann-Whitney-U test or independent t-test.

**Results**

Experts (n=8) outperformed Novices (n=12) with regards to time (37.5 min [30.5-38.8] vs 69.5 min [49.5-74.3], p<0.001) and performance scores (74±12.9 vs 60.3±14.9, p=0.049). Almost all Novices (92%) were convinced that they had improved their surgical performance by practicing on the uterus model. Both Novices and Experts agreed that the new uterus model was realistic and should be incorporated in continuous training curricula for residents and fellows.

**Conclusions**

A new realistic and cost-effective uterus model to simulate a TLH outside of the operating room was created. A major benefit of the model is the application of electrosurgery on the model, offering the option to practice many surgical techniques. First evidence for the use of the model to assess surgical experience was presented. By offering the possibility to simulate even complex laparoscopic procedures realistically outside of the operating room, patient safety can be maintained, and operating room capacities can be used more efficiently without compromising the surgical education of future gynaecologists.

**ABST-0176 -  
Best Selected Abstracts 2**

**Obstetric outcomes after hysteroscopic septoplasty in patients with recurrent pregnancy loss and secondary infertility**

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**Background**

Partial septate uterus (PSU) can lead to recurrent pregnancy loss (RPL). The aim of this study was to determine the obstetric outcomes in patients with RPL and secondary infertility after hysteroscopic septoplasty of PSU.

**Methods**

This retrospective cohort study (1992-2020) included 162 women with RPL and secondary infertility who underwent hysteroscopic septoplasty of PSU (Group 1). Prior to hysteroscopy the initial diagnosis was unexplained RPL in most patients. The diagnosis of PSU was made at time of hysteroscopy based on the American Fertility Association classification of Müllerian anomalies (AFS 1988) and was subsequently reclassified according to European Society of Human Reproduction and Embryology/European Society for Gynaecologic Endoscopy (ESHRE/ESGE) classification (2013). The control group included 162 women with secondary infertility and normal endometrial cavity on hysteroscopy (Group2). Subsequent treatment plans depended on the underlying aetiology of secondary infertility. Background characteristics, obstetric history and obstetrical outcomes in both groups were analysed.

**Results**

There were no significant differences in background characteristics between the two groups except for significantly higher BMI ( $p < 0.001$ ) and lower FSH levels ( $p < 0.05$ ) in Group 1 and significantly higher incidence of tubal factors ( $p < 0.001$ ) and endometriosis ( $p < 0.001$ ) in Group 2. There was no significant difference in pregnancy (65.4% vs 65.4%), delivery (52.8% vs 53.5%), or miscarriage (14.3% vs 15.7%) rates. There was no significant difference in gestational age at delivery in weeks ( $35.1 \pm 7.5$  vs  $36.7 \pm 5.6$ ), and in newborn birth weight in grams ( $2859.6 \pm 874.6$  vs  $2796.5 \pm 759.2$ ) between Group 1 and Group 2, respectively.

**Conclusions**

The data suggest that hysteroscopic septoplasty of PSU is effective in improving the obstetric outcomes in patients with RPL and secondary infertility.

**ABST-0100 -  
Best Selected Abstracts 2**

**Does septum resection enhance suitable surface area for implantation: A theoretical model with 3-D simulation.**

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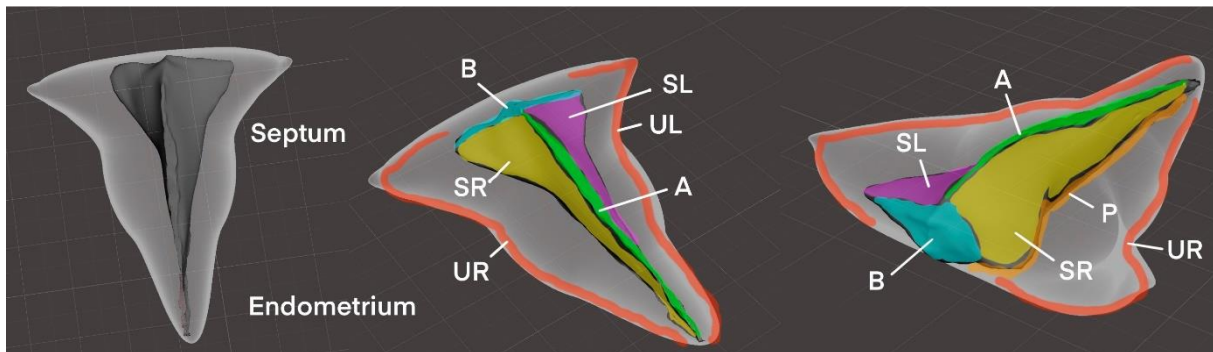
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**Background**

Subclinical studies indicate that endometrial and myometrial tissues beneath the septate may differ significantly from other uterine regions in terms of gene expression for implantation, immunological patterns, and histologic characteristics.<sup>1-3</sup> This study aims to assess whether septum resection in patients with uterine septate enhances the endometrial surface area suitable for implantation, utilizing a three-dimensional simulation model for precise anatomical analysis.

Subclinical studies indicate that endometrial and myometrial tissues beneath the septate may differ significantly from other uterine regions in terms of gene expression for implantation, immunological patterns, and histologic characteristics.<sup>1-3</sup> This study aims to assess whether septum resection in patients with uterine septate enhances the endometrial surface area suitable for implantation, utilizing a three-dimensional simulation model for precise anatomical analysis.

**Methods**



In this analytical, non-randomized study, we generated 3D models of the uterine cavity for patients diagnosed with various sizes of uterine septate, confirmed by preoperative 3D ultrasounds and hysteroscopy. Using 3D Slicer software, models were created and refined with Meshmixer, allowing for detailed manipulation and analysis of the uterine cavity and septum dimensions. Surface areas were calculated using the "Mass Properties" function in SOLIDWORKS, with areas categorized as suitable for implantation surface area (SISA) and unsuitable for implantation surface area (USISA) based on their anatomical characteristics.

**Results**

The study included 30 women with complete or incomplete uterine septate who underwent hysteroscopic septum resection. We observed that the endometrial cavity's surface area varied significantly with septum size, demonstrating a consistent decrease in the SISA/USISA ratio as the septum size increased. Linear and segmented regression analyses revealed a distinct breakpoint at a septum length of 7 mm, where the relationship between SISA/USISA ratio and septum length

changed markedly. Below this length, the SISA/USISA ratio showed a steeper decline with increasing septum length compared to above this point. Notably, the findings indicated that metroplasty often did not result in an increased uterine cavity width or volume, suggesting that the tissue characteristics beneath the septate differ significantly from other uterine areas.

### **Conclusions**

Metroplasty can reduce the endometrial surface area considered suitable for implantation by increasing the relative area of unsuitable tissue, especially with larger septum sizes. The findings suggest the necessity of a cautious approach in selecting patients for septum resection, considering individual septum dimensions to maximize potential benefits.

**ABST-0324 -  
Best Selected Abstracts 2**

**The Minitouch 3.8 Era Office Endometrial Ablation Procedure: 36-month Outcomes from a Prospective, Multicentre, Pivotal Clinical Trial**

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**Background**

To evaluate long-term outcomes of the Minitouch Procedure for heavy menstrual bleeding.

**Methods**

A prospective, multicentre, single-arm, open label, pivotal clinical trial was conducted at 5 US physician's offices to evaluate safety and efficacy of Minitouch Outpatient Endometrial Procedure, with follow-up through 36 months.

114 premenopausal women with a history of heavy menstrual bleeding and a Pictorial Blood Loss Assessment (PBLAC) score >150 were treated with the Minitouch Procedure. The demographics were as follows - mean  $\pm$  SD (range): age  $41.8 \pm 4.7$  (30-50) years, C-sections  $0.7 \pm 1.0$  (0-5), sounding depth  $8.6 \pm 0.9$  (7.0-11.0) cm, cavity length  $5.2 \pm 0.8$  (4.0-7.8) cm, and endometrium thickness  $9.5 \pm 4.2$  (3.0-23.4) mm.

All 114 Minitouch Procedures were performed in the office without endometrial pretreatment or period timing. Cervical dilation and cavity sealing are not required. There is no upper limit to the cavity length that can be treated. Mean procedure duration was 7 minutes, with a median of 7 minutes.

**Results**

36-month data was available for 94% (107/114) of the subjects.

94% (101/107) reported eumenorrhea (normal, light, spotting or no periods), with 59% (63/107) reporting amenorrhea or spotting.

95% (98/103) of the subjects who had dysmenorrhea reported a significant reduction in their dysmenorrhea burden. Their pre-procedure score of 6.6 reduced to 0.8 on average at Month 36. 71% (76/107) reported no period pain at all at Month 36.

94% (100/107) reported no limitations at all due to menstrual periods in work, physical, social or leisure activities.

There were no device or procedure-related serious adverse events and no incidences of pregnancy. 2.6% (3/114) underwent post-procedure intervention for bleeding and other reasons.

## **Conclusions**

The Minitouch 3.8 Era Office Endometrial Ablation procedure demonstrated a high level of safety, and effectiveness for bleeding, dysmenorrhea, and quality of life, throughout the 36 month follow up. It is performed in a physician's office without endometrial pretreatment, period timing, cervical dilation or cavity sealing.



**ABST-0462 -  
Best Selected Abstracts 2**

**Hysteroscopic metroplasty for partial septate uterus: just a matter of infertility? Preliminary data from prospective study.**

*Eugenia Mantovani<sup>1</sup>, Alessandro Arena<sup>1</sup>, Agnese Virgilio<sup>1</sup>, Camilla Franceschini<sup>1</sup>, Erika Bettiol<sup>1</sup>, Paolo Casadio<sup>1</sup>*

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**Background**

Uterine septa represent the most common Müllerian defects, and they are associated with fertility impairment. However, evidence regarding correction of partial septa (U2a class) for improving fertility is less robust and studies in literature often yield conflicting results.

Despite several studies have demonstrated the correlation between uterine malformations and pain symptoms, studies on the potential improvement of metroplasty in other outcomes, such as symptomatic pain, are more limited.

The aim of our study is to evaluate the impact of hysteroscopic metroplasty on symptomatic relief in women with partial uterine septa (U2a class) and to investigate the potential association between clinical and ultrasonographic characteristics and symptoms' variation.

**Methods**

This single-centre, observational, prospective study included patients who underwent hysteroscopic metroplasty between March 2022 and March 2023, excluding patients with other potential causes of pelvic pain. Moreover, we excluded patients that needed a second surgical intervention to complete the septum correction. Preoperative symptoms such as dysmenorrhea, dyspareunia, and menstrual blood flow were assessed using a visual analog scale (VAS) with a score from 0 to 100. All patients underwent a preoperative 3D-transvaginal sonography, measuring septa ultrasonographic characteristics.

A 12-month follow-up assessment was conducted, during which patients were asked to evaluate any changes in the symptoms following the surgical procedure.

**Results**

Between March 2022 to March 2023, 70 patients diagnosed with partial uterine septa and without additional comorbidities that may cause pelvic pain underwent hysteroscopic metroplasty. We excluded from our study 16 patients that required a secondary surgical intervention to complete the procedure and 10 women who did not adhere to follow-up protocols.

Data from 44 patients were analysed. Dysmenorrhea significantly decreased post-metroplasty (mean  $\pm$  SD: 50.15  $\pm$  20.46 vs. 33.09  $\pm$  20.37,  $p < 0.001$ ), as well as dyspareunia (mean  $\pm$  SD: 41.8  $\pm$  9.49 vs. 28.56  $\pm$  24.45,  $p 0.028$ ). No significant changes were observed in menstrual flow. Patients with persistent dysmenorrhea post-surgery had longer uterine septa on average (mean  $\pm$  SD: 11.33  $\pm$  4.89 vs. 8.33  $\pm$  2.95,  $p 0.020$ ).

**Conclusions**

Hysteroscopic metroplasty in patients with partial uterine septa is associated with significant symptomatic pain reduction.

The extent of the uterine malformation appears to influence post-surgery pain relief.

These findings hold significant implications for clinical counselling, particularly in the context of offering optimal therapeutic strategies for women diagnosed with partial uterine septum, beyond reproductive intentions.

Further prospective studies on larger samples are needed to confirm our findings.

Conflict of interest: the authors declare no conflict of interest

Funding: This research received no external funding.

Institutional Review Board Statement: This study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Ethics Committee of Azienda Ospedaliero-Universitaria of Bologna.

**ABST-0727 -**

**Best Selected Abstracts 2**

**Prediction of non-resectability using the updated predictive index value model assessed by imaging and surgery in tubo-ovarian cancer: a prospective multicentre study**

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**Background**

A laparoscopy-based scoring system was developed by Fagotti et al. (predictive index value (piv) score) based on the intraoperative presence or absence of carcinomatosis on predefined sites. Later, the authors updated the piv score calculated only in the absence of one or both absolute criteria of non-resectability (mesenteric retraction and miliary carcinomatosis of the small bowel) (updated piv model). The aim was to demonstrate the non-inferiority of ultrasound to other imaging methods (contrast enhanced computed tomography (ct) and whole-body diffusion-weighted ((wb dwi)/mri) in predicting non-resectable tumor (defined as residual disease >1 cm) using the updated piv model in patients with tubo-ovarian cancer. The agreement between imaging and intraoperative findings as a reference was also calculated.

**Methods**

This was a European prospective multicentre observational study. We included patients with suspected tubo-ovarian carcinoma who underwent preoperative staging and prediction of non-resectability at ultrasound, CT, wb-dwi/MRI and surgical exploration. The predictors of non-resectability were suspicious mesenteric retraction and/or miliary carcinomatosis or if absent, a piv >8 (updated piv model). The piv score ranges from 0 to 12 according to the presence of disease in six intra-abdominal sites (great omentum, liver surface, lesser omentum/stomach/spleen, parietal peritoneum, diaphragms, bowel serosa/mesentery). The reference standard was surgical outcome, in terms of residual disease >1 cm, assessed by laparoscopy and/or laparotomy. The area under the receiver operating characteristic curve (auc) to assess the performance of the methods in predicting non-resectability was reported. Concordance between index tests at detection of disease at predefined sites and intraoperative exploration as reference standard was also calculated using Cohen's kappa.

## Results

The study was between 2018 and 2022 in five European gynaecological oncology centres. Data from 242 patients having both mandatory index tests (ultrasound and CT) were analysed. 145/242 (59.9%) patients had no macroscopic residual tumour after surgery (r0) (5/145 laparoscopy and 140/145 laparotomy) and 17/242 (7.0%) had residual tumour  $\leq 1$ cm (r1) (laparotomy). in 80/242 patients (33.1%), the residual tumour was  $>1$  cm (r2), 30 of them underwent laparotomy and maximum surgery was carried out and 50 underwent laparoscopy and cytoreduction was not feasible.

the predictive performance of three imaging methods was analysed in 167 women. the aucs of all methods in predicting non-resectable tumour was 0.80 for ultrasound, 0.76 for CT, 0.71 for wb-dwi/MRI and 0.90 for surgical exploration. ultrasound had the highest agreement (Cohen's kappa ranging from 0.59 to 0.79) compared to CT and wb-dwi/MRI to assess all parameters included in the updated piv model.

## Conclusions

Ultrasound showed non-inferiority to CT and to wb-dwi/MRI in predicting surgical outcome using the updated piv model. ultrasound can be used as an alternative imaging method to wb-dwi/MRI or CT in the assessment of abdominal disease and prediction of non-resectability when performed by experienced examiners in oncological centres.

**ABST-0738 -  
Best Selected Abstracts 2**

**Detection of Vulvar International Tumour Analysis criteria among sonographers in lymph node evaluation – inter-rater reliability study**

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**Background**

Inter-rater reliability of Vulvar International Tumour Analysis (VITA) terms in lymph node description.

**Methods**

The VITA steering committee collected videos of lymph nodes from patients with gynaecological cancer, selected 10 videos for each of the 32 features from the 10 VITA parameters and agreed on their evaluation, setting the reference standard. After a tutorial webinar, 34 examiners from 29 centres (67.6% experienced sonographers, 70.6% from cancer centres) independently evaluated these videos on a dedicated e-platform to detect VITA parameters. Correct answer rates (%) and Fleiss kappa (k) to assess inter-rater agreement were calculated.

**Results**

Overall, the correct response rate was 87.2%. The lowest percentage correct answers were for blood vessel architecture (80.6%) (transcapsular flow 79.1%, combined flow 71.5%). Capsular interruption was the most correctly recognized parameter (95.6%). Among sub-categories, the worst results were for spiculated shape (correct answers 70.7%) and partial nodal-core sign (64.6%). Inter-rater agreement ranged from moderate to almost perfect (k 0.56-0.93). The main ultrasound signs of malignancy (nodal-core sign absent and round shape, cortical thickening and capsular interruption) were well recognized (90-97.3%) demonstrating almost perfect agreement.

**Conclusions**

Recognition of VITA parameters and features was good. Revision of the definitions of features with moderate agreement may improve interobserver agreement for the VITA nomenclature.

# BEST SELECTED ABSTRACTS VIDEO

**ABST-0091 -**

**Best Selected Videos 1**

## **Laparoscopic Davydov for treatment of vaginal agenesis**

*Julie Vervier<sup>1</sup>, Martine Demarche<sup>2</sup>, Michelle Nisolle<sup>1</sup>*

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### **Background**

Mayer-Rokitansky-Küster-Hauser syndrome is a rare müllerian agenesis affecting approximately 1 in 4500–5000 females. It is caused by embryonic underdevelopment of the müllerian duct, leading to absence or malformation of the vagina, uterus, or both. Diagnosis is typically done when affected woman present with primary amenorrhea, dyspareunia, or infertility despite normal pubertal development. First-line treatment involves vaginal dilator therapy. When surgical intervention is necessary, the laparoscopic Davydov procedure, as described by Dargent et al., offers a favourable option with good anatomical and sexual outcomes and minimal surgical risks.

### **Methods**

The procedure consists of three steps: dissection of the rectovesical space by laparoscopy, peritoneo-vestibular anastomosis through a perineal approach, and closure of the neovagina by laparoscopy. Postoperative dilation is needed to prevent neovaginal stenosis and contracture. Dilators should be used intermittently until the patient begins engaging in regular and frequent sexual intercourse.

### **Results**

The laparoscopic Davydov procedure is an effective option, providing favourable outcomes in both anatomical results and sexual function. The surgery offers several advantages, including short operative time, reduced hospital stay, no need for special instrumentation, and absence of external scars, all with a very low risk of complications. Compared to laparoscopic sigmoid colovaginoplasty, the Davydov technique provides good anatomical and functional outcomes, as well as high patient satisfaction, with less blood loss and shorter operative time.

### **Conclusions**

The laparoscopic Davydov technique represents a good compromise between non-surgical treatments with slow and sometimes suboptimal results and more invasive surgical treatments involving digestive resection. Among various laparoscopic procedures, the laparoscopic Davydov has our preference due to its simplicity, high rate of success, and low rate of complications. The management of vaginal agenesis necessitates a multidisciplinary approach to fully support affected patients throughout the entire treatment journey.

<https://player.vimeo.com/video/942977637?autoplay=1>

**ABST-0265 -  
Best Selected Videos 1**

**An unexpected complication diagnosed four years after laparoscopic assisted vaginal hysterectomy**

*Laura Schaefer<sup>1</sup>, Bernd Holthaus<sup>1</sup>*

*<sup>1</sup>St. Elisabeth Krankenhaus, Gynaecology, Damme, Germany*

**Background**

We present a short video case of a complication after a laparoscopic assisted vaginal hysterectomy. A 44-year-old G2P2 successful businesswoman with no significant medical history presented to our department 4 years following a laparoscopic assisted vaginal hysterectomy with anterior and posterior vaginal wall repair. She complained of a significantly shortened vaginal length that was causing a notable reduction in quality of life.

**Methods**

Multiple clinical examinations postoperatively demonstrated a significantly shortened vaginal length of 2cm. The patient showed no systemic symptoms throughout her postoperative course. A well circumscribed lesion with homogenous echogenicity centrally and hyperechoic margins measuring approximately 4 cm was demonstrated 2 years postoperatively on transvaginal ultrasound at the apex of the vagina. A diagnostic laparoscopy 2 years postoperatively showed no significant pathology despite the ultrasound findings.

**Results**

On presentation to our unit 4 years postoperatively we performed a further laparoscopy, with vaginal and rectal manipulation to aid identification of pelvic landmarks. A vaginal cuff abscess was identified and drained with refashioning of the vagina which was subdivided most likely due to post operative adhesions between anterior and posterior vaginal wall.

**Conclusions**

There have been few cases published of vaginal cuff abscess presenting up to several years following the initial surgery. In this case, the only clinical symptom was a shortened vaginal length as the vaginal cuff abscess was well encapsulated. Following surgery, the postoperative course was uneventful. Topical oestrogen and the regular use of vaginal dilators allowed for the reinforcement of a healthy length vaginal length of 6cm.

<https://player.vimeo.com/video/945503048?autoplay=1>

**ABST-0371 -  
Best Selected Videos 1**

**Integrating Multispeciality Expertise: Robotic Assistance in Dual Intestinal Anastomosis, Cystectomy, and Extensive Posterior Compartment Endometriosis.**

*Giovanna Arcas<sup>1</sup>, Carina Lottenberg<sup>1</sup>, Danielle Nazareth<sup>1</sup>, Gustavo Barison<sup>1</sup>, Priscilla Pessoa<sup>1</sup>, Mariana Corinti<sup>1</sup>*

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Minimally Invasive Gynecologic Surgery Department, São Paulo, Brazil*

**Background**

To present a case report of a robot-assisted resolution of significant deep endometriosis, involving the rectovaginal septum, bilateral parametria, bladder and intestine.

**Methods**

Patient under general anaesthesia, placed in lithotomy position, with arms alongside the body and legs abducted in adjustable stirrups. One conventional 10mm laparoscopic portal was positioned in the right flank and three robotic portals: one 8mm umbilical and two 8mm on the right and left iliac fossas. The uterus was manipulated with a disposable manipulator.

**Results**

Female patient, 44 years old, with chronic pelvic pain, with no resolution after clinical treatment. On physical examination, there was a painful bladder nodule, a lesion in the lower rectum palpable through the posterior vaginal wall and another lesion of the rectum adhered to the retrocervical portion with extension to both uterosacral ligaments. The pelvic MIR confirmed the presence of endometriotic lesions in the bladder, on the rectovaginal septum, in retrocervical region and in the bowel on the rectosigmoid and the ilium.

Robot-assisted multispecialty excision of foci of deep endometriosis from the rectovaginal septum, bilateral parametria, vagina and resection of bladder and intestinal lesions with assistance of a urologist and coloproctologist. The surgery lasted three and a half hours, the patient was discharged four days later but readmitted a week afterward due to suspected intestinal sub occlusion, which was resolved after three days with fasting and the insertion of a nasogastric tube.

**Conclusions**

The use of advanced techniques, associated with multispecialty approach, allowed for a more precise and safe treatment, contributing to a successful surgery and a favourable outcome. It is important to highlight the importance of anatomical knowledge and specialized surgical techniques for the treatment of deep endometriosis.

<https://player.vimeo.com/video/945924343?autoplay=1>



**ABST-0052 -  
Best Selected Videos 1**

**Treatment of recurrent inguofemoral lymphocele by ICG mapping of lymphatic leakage**

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**Background**

Inguofemoral lymphoceles are a common postoperative complication after inguofemoral lymphadenectomy (LNE) or inguinal sentinel LNE. A wide range of interventional, medical and surgical options are available for the prevention and treatment of inguofemoral lymphoceles. Yet, this common complication is a challenge for patients as well as physicians. We report here our preliminary experience in the surgical management of a recurrent lymphocele using indocyanine green (ICG) detection, followed by robotic-assisted closure of the lymphatic leaks. The aim is to illustrate the surgical steps of ICG-assisted detection of inguinal lymphatic leaks and their surgical treatment by means of robot-assisted suturing. Furthermore, the feasibility of the approach will be evaluated.

**Methods**

A 59-year-old woman with locally advanced squamous cell carcinoma of the vulva, FIGO IIIc, previous conventional bilateral inguofemoral LNE, tumour resection with posterior hemivulvectomy and partial colpectomy, presented postoperatively with symptomatic therapy-resistant lymphoceles of the groin. Adjuvant radiochemotherapy was in progress during this time. As the standard therapy was not successful and the patient's quality of life continued to decline, she was offered surgical treatment with ICG detection and subsequent robot-assisted ligation of the leaks, using the Da Vinci robotic system™.

**Results**

The procedure was performed as planned, with no intraoperative complications or device-related issues. The postoperative course was uneventful, and the patient developed no further lymphoceles.

**Conclusions**

A symptomatic lymphocele that cannot be treated conservatively may be managed by surgery. Visualization of the leakage by ICG combined with minimally invasive robotic-assisted laparoscopy is a promising therapy option. The case presented here was marked by a protracted course of treatment, but ultimately the outcome was favourable. This video is shown in order to share our experience about the safety, feasibility, and usefulness of surgical identification of a leakage of lymphatic fluid after inguofemoral LNE in vulvar cancer using real-time ICG fluorescence. Further studies will be needed to prove the absolute efficacy of this technique and issue a general therapy recommendation. The same is true of the potential preventive benefit of the procedure.

<https://player.vimeo.com/video/939210967?autoplay=1>

**ABST-0108 -  
Best Selected Videos 1**

**A novel single-site extraperitoneal approach for lymphadenectomy in fertility-sparing staging surgery of epithelial ovarian cancer**

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**Background**

The extraperitoneal approach can avoid the interference of abdominal organs when performing high-level para-aortic lymphadenectomy, which is an important procedure for gynaecological cancers. Besides, it can also keep the peritoneum intact and reduce extensive intraperitoneal adhesion, which might contribute to subsequent radiotherapy and future pregnancy for young patients. However, in the lateral extraperitoneal approach adopted in conventional multiport laparoscopy, the bilateral obturator regions and contralateral para-aortic area were poorly exposed with difficulties in tissue extraction. Since trans umbilical laparo-endoscopic single-site surgery (TU-LESS) has been widely adopted in recent years, we designed a novel TU-LESS central extraperitoneal approach which not only retains advantages of the lateral approach, but also achieves satisfactory visualization of both pelvic and para-aortic areas. This video demonstrates surgical steps of TU-LESS extraperitoneal approach for lymphadenectomy in fertility-sparing staging surgery of epithelial ovarian cancer.

**Methods**

The patient was a 29-year-old G0P0 woman who had a strong desire for reproduction. She was diagnosed as stage IC1 low-grade serous adenocarcinoma after a laparoscopic left ovarian cystectomy. The whole surgical staging was completed through a 2cm umbilical incision. Development of the extraperitoneal approach including posterior peritoneal incision above the aortic bifurcation and purse string suture was completed under laparoscopy. An appropriate port was inserted into the extraperitoneal space to perform lymphadenectomy up to the left renal vein. Then other concomitant procedures were completed intraperitoneally.

**Results**

The total operative time was 230 min with 200 mL blood loss. The patient was discharged in 3 days after the surgery and no complications occurred. Pathology examination revealed no residual tumour in all resected specimens which made the postoperative stage remain as IC1. She had a successful full-term birth 2 years after the surgery.

**Conclusions**

TU-LESS extraperitoneal approach is of great advantage in fertility-sparing staging surgery of epithelial ovarian cancer with promising reproductive outcomes.

<https://player.vimeo.com/video/945193901?autoplay=1>

**ABST-0360 -  
Best Selected Videos 1**

**Caesarean scar defect and retained products of conception (RPOC): a step-by-step combined hysteroscopic and laparoscopic treatment**

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**Background**

Uterine scar defect (also called uterine niche or isthmocele) associated to the presence of retained products of conception (RPOC) is an uncommon occurrence following caesarean section. Typically, the primary indicator is abnormal vaginal bleeding, and an accurate diagnosis can often be established through ultrasound evaluation. Several surgical and endoscopic treatments have been described. We propose a combined hysteroscopic and laparoscopic approach to perform isthmocele repair in a symptomatic patient with caesarean scar defect and RPOC infiltrating the myometrium.

**Methods**

We report a case of a 34-years-old patient who was referred to our Digital Hysteroscopic Clinic (DHC) for abnormal vaginal bleeding and persistent pelvic pain, three months after a caesarean section. A single-step diagnostic approach through transvaginal ultrasound and diagnostic hysteroscopy revealed the presence of an isthmic uterine niche within the caesarean scar area, confining with a poorly vascularized heterogeneous hyperechoic focal mass measuring 33x11x33 millimetres. We present a step-by-step demonstration with narrated video footage of an integrated endoscopic approach combining hysteroscopy and laparoscopy.

**Results**

Patient underwent a combined laparoscopic and hysteroscopic procedure for the removal of RPOC and treatment of uterine scar defect. An hysteroscopic Tissue Removal Device (Truclear Elite Mini, Medtronic) was used to remove the placental remnants from the scar defect, whereas concomitant laparoscopy allowed for a successful isthmocele repair. All retained placental tissue was removed and the uterine wall defect was corrected. No complications occurred and the patient was discharged two days after the procedure. Patient was asymptomatic at 1 month follow up and the ultrasound showed a reconstituted uterine wall.

**Conclusions**

An integrated hysteroscopic and laparoscopic approach seems to be an effective conservative method to remove RPOC and perform isthmocele repair with optimal surgical results.

<https://player.vimeo.com/video/945910011?autoplay=1>

**ABST-0482 -  
Best Selected Videos 1**

**Robotic techniques in endometriosis: 6 steps for excision of rectovaginal nodules – the butterfly method**

*Nicolas Samartzis<sup>1</sup>, Dimitrios Rafail Kalaitzopoulos<sup>2</sup>, Laurin Burla<sup>1</sup>, Mihai Angheluta<sup>1</sup>, Horace Roman<sup>3</sup>, Benjamin Merlot<sup>3</sup>*

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<sup>3</sup>*IFEMENDO, Endometriosis Centre, Bordeaux, France*

**Background**

The aim of this video is to present a standardized and reproducible approach for the surgical excision of deep endometriosis in the rectovaginal septum, represented by #ENZIAN A

**Methods**

An Intuitive Xi DaVinci system was used at the tertiary referral centre, IFEMEndo in Bordeaux, France. Patient consent was obtained.

**Results**

This educational film presents a systematic approach dividing the surgical procedure into following 6 steps (1) Adhesiolysis and identification of the decisive structures such as the sacrouterine ligament, ureter, and nervus hypogastricus on both sides. (2) Dissection of the Okabayashi pararectal space with preservation of the plexus hypogastricus. (3) Incision of the pararectal space medial of the sacrouterine ligament. (4) Dissection of the rectovaginal septum and detachment of the rectum in a caudal direction. (5) Resection of the entire endometriotic nodule depending on the depth of invasion. (6) Closure by suturing when transvaginal resection was performed. We used the metaphor of the butterfly, first introduced by Khazali et al. in 2019, as it comprehensively and pictorially reflects the resection line of the endometriotic nodule in the rectovaginal septum.

**Conclusions**

Surgical management of rectovaginal endometriosis can be challenging and requires as much as possible the preservation of autonomic nerves. A systematic approach enables the endoscopists to perform a safe and complete removal of the lesion.

<https://player.vimeo.com/video/945988757?autoplay=1>

**ABST-0573 -  
Best Selected Videos 1**

**Laparoscopic insights into a rare case of OHVIRA syndrome**

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**Background**

Obstructed hemivagina and ipsilateral renal agenesis (OHVIRA) syndrome is a rare congenital anomaly characterized by didelphys uterus, obstructed hemivagina and renal agenesis, due to müllerian and wolffian duct malformation during embryologic development. Patients are usually diagnosed after menarche exhibiting dysmenorrhea and mucopurulent discharge and can later present with infertility, obstetrical complications and endometriosis. Recent literature has reported many urogenital variations of the syndrome, notably the development of a dysplastic kidney with an ectopic ureter communicating with the obstructed hemivagina, leading to the suggestion of replacing renal “agenesis” with “anomalies” in the definition.

We present the rare case of a patient with OHVIRA syndrome, showcasing the laparoscopic findings from the surgical treatment.

**Methods**

We reviewed the patient’s medical records and present a video of her surgical management. Patient consent to present and publish was obtained.

**Results**

We describe the case of a 45-year-old woman with bicornuate uterus and left kidney agenesis consulting for left pelvic pain, abundant purulent vaginal discharge and recurrent urinary infections. She has a history of surgery for vesicoureteral reflux in childhood involving reimplantation of the right ureter. Additionally, she underwent a late preterm cesarean section for dichorionic twin pregnancy, and a diagnostic hysteroscopy for suspicion of hematometra during which the left uterine hemicavity and cervical canal could not be visualized. The preoperative MRI classified the genital malformation as U3bC2V2 (ESHRE/ESGE) and showed a probable remnant of the left ureter collapsing at the level of the left cervix. We consequently performed a total laparoscopic hysterectomy with bilateral salpingectomy and resection of the left ureteral remnant. In the surgical specimen we confirmed the genital malformation and the presence of the ureter communicating with the left hemivagina.

## **Conclusions**

This is a rare case of OHVIRA syndrome diagnosed in the fifth decade of life in a patient with persistent symptomatology, treated laparoscopically.

<https://player.vimeo.com/video/951282763?autoplay=1>

**ABST-0578 -  
Best Selected Videos 1**

**Emergency laparoscopic treatment of caesarean scar ectopic pregnancy in a patient with bladder endometriosis after injection of intraureteral ICG and uterine artery clipping**

*Nuria Barbany Freixa<sup>1</sup>, Pedro N Barri-Soldevila<sup>1</sup>, Carlota Vilarrubí<sup>1</sup>, Sonia Baulies<sup>1</sup>*

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**Background**

Caesarean scar pregnancy (CSP) is a rare form of ectopic pregnancy defined by the presence of a gestational sac in the scar of a previous caesarean section. Treatment stage depend mainly on the stage at diagnosis. Management strategies include expectant management, medical treatment, and surgical treatment of CSP. Resection of the CSP and repair of the uterine defect has been suggested to improve fertility outcomes

**Methods**

- 1.- The video illustrates the case of 39-year-old women with a personal history of a previous caesarean section, asymptomatic deep infiltrating endometriosis involving bladder and rectum who consulted in our centre seeking for pregnancy. B-HCG was positive after first IVF attempt.
- 2.- After being diagnosed of a miscarriage, medical treatment with Misoprostol was prescribed. Few days later she came to emergency complaining of heavy bleeding and menstrual pain. B-HCG was 14970 and haemoglobin 9g/dL. Transvaginal ultrasonography showed 4 cm vascularized retained products of conception infiltrating the myometrium, deep infiltrating endometriosis involving the bladder dome and posterior compartment including anterior rectal wall and both uterosacral ligaments. The MRI confirmed the previous findings.
- 3.- The patient was proposed laparoscopic surgery of the CSP and repair of the caesarean scar defect. After the administration of Indocyanine green (ICG) through the ureters by cystoscopy, clipping of both uterine arteries was performed. Bladder was filled and dissected. Excision of CSP was done demonstrating a Caesarean Scar Defect at this level. The uterine wound was closed in two layers using interrupted resorbable figure-of-eight sutures.

**Results**

The patient was discharged on the postoperative day 2. B-HCG dropped under 500 in a week and zero in three weeks. Transvaginal ultrasound and diagnostic hysteroscopy performed three months later revealed normality

**Conclusions**

Laparoscopic resection of a CSP is feasible and the use of vascular clamps minimise bleeding

<https://player.vimeo.com/video/951329909?autoplay=1>

**ABST-0673 -  
Best Selected Videos 1**

**Integrated approaches for Ureterovesical Junction preservation in bladder endometriosis surgery**

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**Background**

Illustrating the application of multiple techniques to maintain Ureterovesical Junction (UVJ) integrity and avoid ureteral reimplantation.

**Methods**

Case report illustrated with video.

Setting: Patient under general anaesthesia, placed in lithotomy position, with arms alongside the body and legs 80 degrees abducted in adjustable stirrups. Four 8 mm robotic portals were positioned: in the umbilical scar, two on the right and one on the left iliac fossae. Insertion of a double J catheter guided by cystoscopy. Injection Indocyanine Green (ICG) dye through catheter. Disposable uterine manipulator was used.

Patient: 39-year-old Woman, nulligest with future fertility desire presented with complaints of chronic pelvic pain, dysmenorrhea, deep dyspareunia, dyschezia, dysuria and urinary urgency. MRI revealed enlarged uterus, retrocervical thickening and a bladder lesion involving the detrusor muscle and mucosa, measuring 5.0 x 3.0 x 1.5 cm.

Interventions: Robot-assisted laparoscopic excision of endometriosis using ICG under near-infrared fluorescence.

**Results**

A robot-assisted laparoscopic surgery was performed to excise endometriosis lesions with partial cystectomy. The UVJ was preserved, and no ureteral injury observed.

The surgery lasted 4 hours, with minimal blood loss and no complications. Patient had a satisfactory postoperative course and was discharged on the second day. Still in postoperative follow-up, the urinary catheter is expected to be removed in 2 weeks, and the double J catheter in 4 weeks.

**Conclusions**

Integrated approaches significantly enhance UVJ preservation in endometriosis surgeries. Robotic surgery offers precision and improved visualization, while double-J stents provide essential ureteral support. The use of ICG aids in the accurate identification of ureteral anatomy, and cystoscopy ensures intraoperative assessment of the ureterovesical junction. Together, these techniques contribute to improved surgical outcomes, minimizing the risk of ureteral injury and enhancing patient recovery.

<https://player.vimeo.com/video/952056901?autoplay=1>



**ABST-0732 -  
Best Selected Videos 1**

**Laparoscopic para-uterine lymphovascular tissue (PULT) sentinel lymph node biopsy with indocyanine green (ICG) in cervical cancer.**

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**Background**

Up to 10% of patients with positive lymph nodes in apparent early-stage cervix cancer harbour lymph node metastasis in the parauterine lymphovascular tissue (PULT). Sentinel lymph node is reported to be found at the level of the PULT in 4% of patients. The present video aims to demonstrate the technique to identify, dissect and remove the PULT sentinel lymph node (SLN) using indocyanine green (ICG) by laparoscopic approach.

**Methods**

We report the case of a 57-year-old woman diagnosed with a grade 3 squamous cell carcinoma of the cervix FIGO 2018 stage IB2 (25 mm diameter) who underwent laparoscopic bilateral SLN biopsy with ICG sent for frozen section and converted to open type C1 radical hysterectomy, bilateral salpingo-oophorectomy and pelvic lymphadenectomy (after negative frozen section result). SLNs were located in the left PULT and right obturator fossa.

**Results**

0.5 mls ICG (1.25 mg/ml) were injected at 3 and 9 o'clock superficially in the cervical stroma. The procedure started by laparoscopic transperitoneal assessment of ICG migration. Once this has been confirmed, the pelvic peritoneum was opened and left pelvic side wall was inspected looking for SLN using near-infrared camera. The ICG mapping was identified medial to the obliterated umbilical artery on the PULT. In particular, two SLNs were identified on the uterine artery, dissected and removed separately, thanks to the use of color-segmented fluorescence (CSF) mode which allowed the identification of higher tracer concentrations. SLNs were removed by endo-bag and sent for ultra staging protocol. No intra- or post-operative complication was recorded. SLNs were reported as negative at pathology analysis.

**Conclusions**

SLN is defined as the first node receiving tracer closest to the uterus. For this reason, gynaecologic oncologists should always check if PULT node is the first node draining lymph or whether a pelvic node is the first one after the lymphatic channel.

<https://player.vimeo.com/video/954697534?autoplay=1>

**ABST-0332 -  
Best Selected Videos 1**

**Uterine Preserving Laparoscopic Pectopexy**

*Ahmed Halouani<sup>1</sup>, Hajer Sebr<sup>1</sup>, Sirine Bayar<sup>1</sup>, Imen Hamra<sup>1</sup>, Anissa Ben Amor<sup>1</sup>, Amel Triki<sup>1</sup>*

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**Background**

Apical organ prolapse is a common condition in women, often requiring surgical intervention for symptom relief and improved quality of life. Various surgical techniques have been developed for apical prolapse repair. While sacrocolpopexy has been the gold standard, recent studies suggest that pectopexy may offer comparable anatomical outcomes with lower morbidity rates.

**Methods**

This is a case of a 56-year-old female patient with stage 3 anterior prolapse, evaluated using the pelvic organ prolapse quantification system (POP-Q). Laparoscopic pectopexy with uterine preservation was performed. Informed consent was obtained from patient included in the video. The authors declare no conflicts of interest.

The video offers a concise demonstration of the surgical procedure, detailing the dissection of the vesicovaginal and rectovaginal spaces, the identification of key landmarks to dissect the pectineal ligament, and the subsequent fixation of the polypropylene mesh to the anterior and posterior vaginal walls. It illustrates the secure fixation of the mesh, to the pectineal ligament, followed by peritonisation.

**Results**

The procedure was completed without perioperative complications. The postoperative course was uneventful, with the patient experiencing resolution of her prolapse symptoms.

**Conclusions**

Uterine-preserving laparoscopic pectopexy is a viable option for the surgical management of apical organ prolapse, particularly in women desiring uterine preservation. This technique offers good anatomical support with low morbidity.

<https://player.vimeo.com/video/945897434?autoplay=1>

**ABST-0046 -  
Best Selected Videos 2**

**Holography guided laparoscopic myomectomy using mixed reality technology**

*Yoshifumi Ochi<sup>1</sup>, Mari Sawada<sup>1</sup>, Kiyoshi Kanno<sup>1</sup>, Shiori Yanai<sup>1</sup>, Masaaki Andou<sup>1</sup>*

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**Background**

Although laparoscopic myomectomy is widely used to treat uterine fibroids, their high recurrence rate remains a persistent issue. To prevent residual fibroids, we utilized mixed reality technology, which is a combination of the physical and digital worlds. We report our initial experience with 3D hologram intraoperative support for laparoscopic myomectomy.

**Methods**

Three-dimensional reconstruction of the magnetic resonance imaging data was made using Ziostation2 (Ziosoft Inc, Tokyo, Japan). The delineation of fibroids, myometrium and endometrium enabled their exact locations to be identified on the image. A three-dimensional hologram, constructed using the Holoeyes MD system (Holoeyes Inc, Tokyo, Japan), was displayed adjacent to the surgical monitor using HoloLens2 head-mount displays (Microsoft Corporation, Redmond, WA, USA). The hologram could be intuitively scaled and manually rotated in the operative field by hand motions.

**Results**

Seven patients underwent the procedure. Mixed reality facilitated the identification of fibroid location, allowing for the evaluation of fibroids corresponding to manipulators and laparoscopic views. This also made it possible to determine the incision line of the uterus and prevent damage to the endometrium when enucleating fibroids were found close to the endometrium. It was particularly effective as a surgical support for FIGO type 0-4 fibroids, which do not show any change in the uterine contour and are difficult to locate. The median operative time was 140 min, and the median blood loss was 150 ml. No complications were associated with the surgery.

**Conclusions**

The use of mixed reality technology in laparoscopic myomectomy is beneficial for intraoperative understanding of the spatial location of uterine fibroids. However, further studies are needed to quantify its effectiveness.

<https://player.vimeo.com/video/931516515?autoplay=1>

**ABST-0252 -  
Best Selected Videos 2**

**Laparoscopic Exposure Techniques in Para-Aortic Lymphadenectomy**

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**Background**

Adequate exposure of the surgical field is essential for the success of surgery which is especially important for retroperitoneal paraaortic lymphadenectomy. In scenarios where intra-abdominal pressure cannot be significantly increased and the Trendelenburg position cannot be effectively implemented due to medical conditions, laparoscopic exposure is compromised. Moreover, employing the assistant's free hand for tissue retraction can impede their ability to assist the surgeon during dissection.

**Methods**

In this video, we will present our standard exposure technique during laparoscopic paraaortic lymphadenectomy.

**Results**

Initially, we use a laparoscopic suture passer to thread a no: 2.0 prolene suture through the appendices epiploicae of rectosigmoid colon which is directly introduced from a 2-3 mm left paraumbilical incision. This retracts the sigmoid towards the left abdominal wall exposing the right part of pelvis. During the operation this may be switched to the right abdominal wall exposing the left part of pelvis by reintroduction of suture passer from right paraumbilical area.

However, in cases where small intestines still obstruct the vision, we retract the small intestines by passing a no. 3.0 prolene suture through the mesometrium of the small intestine superficially at multiple sites and retract the towards upper abdomen and abdominal wall.

Thirdly, when operators are repositioned between the legs, for the exposure retroperitoneal paraaortic area we retract the paraaortic peritoneal folds previously incised for pelvic retroperitoneal access to the corresponding right and left abdominal wall by same technique where it becomes a tent. This helps both exposure of retroperitoneal paraaortic area without the help of assistant but also functions as a set for bulging of small intestines into paraaortic area. Lastly, a laparoscopic fan retractor can be used for additional intestinal retraction.

**Conclusions**

After employing laparoscopic exposure techniques, the increased visibility of the surgical area facilitates the lymphadenectomy and helps preventing potential complications.

<https://player.vimeo.com/video/945752243?autoplay=1>

**ABST-0243 -  
Best Selected Videos 2**

**Robotic-assisted Excision of Sciatic Nerve Endometriosis Encapsulating the Iliac Vessels and Invading the Obturator Internus**

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**Background**

Demonstrate the excision of endometriosis with significant lateral and posterior infiltration, affecting the right lumbosacral plexus, ureter and anterior division of the internal iliac vessels.

**Methods**

Nerve endometriosis is rare (0.1%) but can have a significant effect on quality of life. Symptoms and signs include cyclical/non-cyclical pain with associated dermatomal distribution and/or motor weakness. Surgical management involves neurolysis of one or more nerves. This requires careful dissection and skeletonization of these structures with the intention to normalise the anatomy<sup>1</sup>.

**Results**

The patient was a 37-year-old P2 with cyclical gluteal pain and sciatica.

MRI had revealed significant lateral infiltration up to the right obturator internus with the disease enveloping the anterior division of the internal iliac vessels and lumbosacral plexus.

At robotic-assisted laparoscopy, following hysterectomy, extended colpotomy for vaginal endometriosis and shave of rectal endometriosis, a medial and lateral approach was taken to delineate the nodule. The nodule had enveloped the entirety of the anterior division of the internal iliac, which had to be ligated to remove the disease. Careful and cautious dissection is demonstrated to circumnavigate the nodule and finally excise it entirely from the lumbosacral plexus. The video also highlights the management of a vascular injury.

**Conclusions**

Endometriosis has an innate capacity to infiltrate surrounding structures; displayed to a severe extent in this case. Careful planning and discussion is paramount. Multidisciplinary surgery offers procedural flexibility and facilitates appropriate decision making in cases such as this.

<https://player.vimeo.com/video/945744382?autoplay=1>

**ABST-0402 -  
Best Selected Videos 2**

**New role of indocyanine green in benign gynaecology surgery**

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<sup>2</sup>*The George Washington University-, Department of Obstetrics and Gynecology, Washington DC, USA*

**Background**

Since its approval back in 1956, ICG has been used in different surgical settings. ICG is a tricarboyanine dye that fluoresces in the near-infrared spectrum and allows light excitation of structures up to several millimetres' depth with high contrast. Its ability to bind to plasma proteins has been used to visualize in real time the perfusion of tissues. There have already been studies demonstrating its use in evaluating the vascularization in intestinal anastomosis after bowel resection in endometriosis patients as well as in evaluating ureteral vascularization after ureterolysis in these patients. However, limited data regarding other benign gynaecological procedures is limited to case reports.

**Methods**

Study Objective: To show the use of indocyanine green (ICG) in different benign gynaecology surgery and to demonstrate its potential benefits in different conditions.

Design: Surgical video with different clips demonstrating different use of ICG in benign gynaecological procedures.

**Results**

In the following video clips, we want to show the use of ICG in the following situations:

- Assessing bladder wall integrity after complex adhesiolysis at the vesicouterin space due to multiple C- section.
- Assessing uterine cavity integrity after multiple myomectomy.
- Assessing tubal permeability.

**Conclusions**

ICG use in benign gynaecological procedures was limited to endometriosis surgery, but in the last years, new data shows promising indications of ICG in this field to offer our patients safer and more precise procedures.

<https://player.vimeo.com/video/945944713?autoplay=1>

**ABST-0436 -  
Best Selected Videos 2**

**Unicornuate uterus with a non-communicating rudimentary horn associated with a non-Müllerian malformation: a double-endoscopic approach.**

*Danilo Borrelli<sup>1</sup>, Brunella Zizolfi<sup>1</sup>, Giuseppe D'Angelo<sup>1</sup>, Serena Guerra<sup>1</sup>, Gabi Moawad<sup>2</sup>,  
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**Background**

We want to describe an optimal approach integrating ultrasound, hysteroscopy, and robotic-assisted laparoscopy for complex congenital uterine anomalies, in which Müllerian and non-Müllerian anomalies can be associated.

**Methods**

A 32-year-old patient, nullipara, with unilateral kidney agenesis referring acute pelvic pain. 2D ultrasound initially suspected a complex uterine malformation including residual non-communicating horn with hematometra and vaginal cysts, then confirmed via MRI. At 3D-ultrasound a class U4a uterus according to ESGE/ESHRE classification was diagnosed. Inpatient hysteroscopy performed with a 5-mm continuous-flow hysteroscope revealed a hemicavity with a single tubal ostium. Robotic-assisted laparoscopy facilitated right salpingectomy and removal of the rudimentary horn with ovarian preservation. Intraoperative ultrasonographic scan guided identification and drainage of vaginal cysts. Using a 5Fr electrode, a minor cut was created on the caudal vaginal cyst, resulting in the discharge of thick, dark mucus. Subsequently, the existence of a separate cranial vaginal cyst, distinguished by a thin wall, was verified and effectively emptied. No complications were reported. After 8 months the patient spontaneously conceived an evolutive pregnancy.

**Results**

Successful management of a complex genital malformation using a double-endoscopic approach.

**Conclusions**

A unicornuate uterus with a non-communicating horn and ipsilateral renal agenesis represents a very rare clinical condition; this condition may possibly be due to an abnormal development from a unilateral urogenital ridge. Vaginal cysts may result from defects in mesonephric ducts, retaining Gartner's ducts' cysts in the vaginal walls. Müllerian and non-Müllerian anomalies coexist in this case. Employing a double endoscopic surgical approach of robotic-assisted laparoscopy and hysteroscopy allows comprehensive evaluation of pelvic organs and potential genitourinary anomalies. Transvaginal ultrasound, in 2D/3D, aids in accurate diagnosis and surgical planning for complex genital malformations, providing real-time intraoperative guidance. To our knowledge this marks the first known instance of treating complex female genital malformation with simultaneous hysteroscopy and laparoscopy under ultrasonographic guidance.

<https://player.vimeo.com/video/945946931?autoplay=1>

**ABST-0466 -  
Best Selected Videos 2**

**The role of hysteroscopy in patients with adenomyosis and infertility: bringing out the submerged**

*Giuseppe Gabriele Iorio<sup>1</sup>, Maria Chiara De Angelis<sup>2</sup>, Brunella Zizolfi<sup>2</sup>, Serena Guerra<sup>2</sup>, Carlo Alviggi<sup>2</sup>, Attilio Di Spiezio Sardo<sup>2</sup>*

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**Background**

Adenomyosis has been associated with poor reproductive and obstetric outcomes. The evaluation of the type and extension of adenomyosis in the myometrium seems to be important in correlation to infertility. In particular, adenomyosis of the junctional zone seem to affect IVF outcomes. Today first line diagnosis of adenomyosis is made by ultrasonography. MUSA group suggested univocal criteria to be used when describing morphological variations of adenomyosis and its extent on ultrasound. Although is not a first-line approach for adenomyosis, hysteroscopy represents a viable option for the diagnosis and treatment of focal or diffuse forms of JZ. No guidelines are available on the treatment of adenomyosis in infertile patients. A conservative treatment should be proposed to all young patients desiring pregnancy. The role of hysteroscopy in the treatment has not yet been clarified.

**Methods**

Case series of 3 patients treated at the Hysteroscopy Unit of the University of Naples Federico II for adenomyosis and infertility. The aims were: 1) to describe the combined ultrasound and hysteroscopic approach in the diagnosis of adenomyosis of the junctional zone; 2) to demonstrate the role of hysteroscopy in treating superficial adenomyotic lesions to improve fertility and IVF outcomes.

**Results**

We present the combined ultrasound and hysteroscopy approach in 3 cases of adenomyosis and infertility to improve reproductive outcomes.

**Conclusions**

The combined ultrasound and hysteroscopic approach are useful for identifying adenomyotic lesions that are otherwise not clearly identifiable. Hysteroscopy, combined with pharmacological treatment, can be a conservative treatment achievable in patients with reproductive desire. Hysteroscopic approach has the advantage of leaving the outer myometrium intact with the highest fertility preservation. It is important to tailor embryo-transfer preparation base on accurate assessment of the uterus.

<https://player.vimeo.com/video/951997862?autoplay=1>



**ABST-0484 -  
Best Selected Videos 2**

**Laparoscopic approach to presacral retroperitoneal hematoma after sacrocolpopexy**

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*<sup>4</sup>Policlinico Universitario G. Martino - Università degli studi di Messina,  
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**Background**

Minimally invasive sacrocolpopexy (SCP) has emerged as one of the preferred surgical approaches for managing pelvic organ prolapse (POP), but is not devoid of intraoperative and postoperative complications, with mesh erosion and urinary disfunctions being relatively common. Sporadic life-threatening complications including vascular lesions leading to intraoperative bleeding and postoperative hematomas have also been reported, presacral space and sacral promontory being the most common anatomical sites. The appropriate management of bleeding complications in this area varies from a conservative “wait-and-see” approach to emergency surgery, depending on the individual case. This video reviews the steps of laparoscopic approach to presacral hematomas after SCP, providing tips and tricks for a successful and safe revision surgery without the need for mesh removal.

**Methods**

We present the case of a 69-year-old woman experiencing a retroperitoneal hematoma after LSCP intervention for POP. Due to the clinical and laboratory suspicion of postoperative bleeding, the patient underwent ultrasound and CT examinations, revealing a voluminous hematoma in the soft tissue of the presacral region.

**Results**

The patient underwent emergency laparoscopic surgery for the drainage of the presacral retroperitoneal hematoma and was uneventfully discharged a few days later. At the 3-month follow-up, the patient reported a complete resolution of POP-related symptoms. Minimally invasive revision surgery proved to be efficient to manage voluminous postoperative presacral haematomas. Intraoperative identification of anatomical landmarks and bleeding source is indispensable to determine surgical planning and choose the most appropriate haemostatic technique.

**Conclusions**

Retroperitoneal presacral bleeding is a potentially life-threatening complication of pelvic surgery. We aim to underscore the importance of understanding the anatomical intricacies of presacral and retroperitoneal spaces during SCP procedures. We trust that this detailed video of a complex minimally invasive revision surgery, along with the accompanying tips and tricks, will prove valuable

to gynaecologists facing patients with retroperitoneal presacral hematoma following prosthetic surgery for POP.

<https://player.vimeo.com/video/946363140?autoplay=1>

**ABST-0494 -  
Best Selected Videos 2**

**Purse-string suture technique for totally intracorporeal rectosigmoid anastomosis after segmental bowel resection for deep infiltrating endometriosis**

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**Background**

The rectum and sigmoid colon are involved in approximately 90% of women affected by deep infiltrating endometriosis. When medical therapy proves ineffective or is contraindicated, surgery becomes the treatment of choice for this condition. Segmental resection has shown favourable clinical and functional outcomes among surgical techniques for rectosigmoid endometriosis. Nevertheless, various reports have highlighted a notable risk of perioperative complications associated with the procedure. Totally Intracorporeal anastomosis may be a solution to reduce those complications related to the laparotomy needed to specimen retrieval and completion of the anastomosis. Nonetheless, the current experience with this procedure is quite limited, and there is no established consensus regarding patient eligibility criteria or a standardized operative technique.

**Methods**

We present a clinical case involving a 32-year-old woman suffering from severe symptomatic deep infiltrating bowel endometriosis that did not respond to estro-progestins therapy. In the video, we demonstrate our technique and its advantages, showcasing the use of purse-string sutures for a completely intracorporeal bowel anastomosis. Written informed consent was obtained from the patient for publication of this video, and any accompanying images.

**Results**

In our experience, Totally Intracorporeal Anastomosis technique represents a significant advancement in minimally invasive surgery for Deep Infiltrating Endometriosis.

**Conclusions**

Avoiding the laparotomic approach for extracorporeal anastomosis can provide several advantages both to the patient and the surgeon. We exploit the advantages of the purse-string suture, which is technically simple, eliminates the residual horns and provides greater stability of the anvil allowing to obtain a tight seal of the anastomosis.

<https://player.vimeo.com/video/948431043?autoplay=1>

**ABST-0543 -  
Best Selected Videos 2**

**Ureterovesicovaginal Fistula: Laparoscopic Management in 6 steps**

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**Background**

Vesicovaginal fistula VVF is most commonly associated with iatrogenic injury occurring during gynaecologic surgery and hysterectomy is the operation most frequently causing a VVF with a rate of 0.08%.

Surgery is the most effective corrective measure with a success rate of about 90%.

Risk factors predisposing patients to VVF are prior pelvic surgery, radiation, prolonged presence of a foreign body, infection, and pelvic malignancy.

**Methods**

We present in this video article a case report of laparoscopic management of ureterovesicovaginal fistula in 6 steps, occurring in a 73-year-old patient, 8 days after a total laparoscopic hysterectomy and pelvic and lomboarctic lymphadenectomy for high-risk endometrial cancer.

**Results**

The video shows the laparoscopic management of a ureterovesicovaginal fistula in 6 steps:

Step one: Vesicovaginal dissection

Step two: Vaginal Excision and closure

Step Three: Vesical excision and closure

Step four: Omentoplasty

Step five: Mobilisation of the bladder and Psoas Hitch

Step six: Ureteral reimplantation

**Conclusions**

This video demonstrates a laparoscopic didactic management of ureterovesicovaginal fistula in 6 steps.

Laparoscopy offers a minimally invasive approach with high precision and safety for the management of pelvic fistula.

<https://player.vimeo.com/video/950353959?autoplay=1>

**ABST-0574 -  
Best Selected Videos 2**

**Superior Gluteal Vein Syndrome: An Atypical Etiology of Intrapelvic Sciatica**

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**Background**

A 27-year-old nulliparous female with a history of chronic pelvic pain, sciatica, and pudendal neuralgia presented for evaluation. Her surgical history is significant for laparoscopic excision of superficial endometriosis affecting the left pararectal fossa. One year after the surgery, she continued to experience persistent pain, significantly affecting her quality of life. MRI and EMG were conducted, with no abnormalities detected. She opted for robotic-assisted exploratory laparoscopy and neurolysis.

**Methods**

Robotic-assisted laparoscopic retroperitoneal dissection was performed using a step-by-step approach with both medial and lateral techniques. This allowed for appropriate dissection of the lumbosacral trunk and exploration of abnormal vessels branching off the iliac vein. The laparoscopy revealed compression of the lumbosacral nerve roots (LS) by aberrant superior gluteal veins (SGVs). The aberrant veins compressing the nerve roots were isolated, sealed, and cut.

**Results**

After transecting the abnormal veins and decompressing the trapped nerves, the patient's sciatica completely resolved by six weeks post-operation.

**Conclusions**

Although the role of malformed and abnormal veins in causing pelvic pain and sciatica is not well understood, laparoscopic exploration and decompression of the entrapped nerves may resolve pain in select patients with no other evident pathology. The robotic platform provides improved visualization, dexterity of movements, and tremor filtering, allowing for a meticulous, reproducible, and safe approach.

<https://player.vimeo.com/video/951299278?autoplay=1>

**ABST-0596 -  
Best Selected Videos 2**

**Laparoscopic resection of non-communicating accessory uterine cavitated masses: Uterus reconstruction with the “Protopapas - four overlapping flaps – suturing technique”.**

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**Background**

Congenital anomalies of the genital tract are characterized by anatomic diversity and considerable variety in clinical presentation and imaging characteristics. A rudimentary horn with a cavity harbouring functional endometrium not communicating with the rest of the endometrial cavity is a pathologic entity associated with severe primary dysmenorrhea.

**Methods**

This is a case of a 13 years-old adolescent with a right non-communicating accessory uterine cavitated mass, presenting with intractable primary dysmenorrhea and a VAS score of 10. The patient underwent laparoscopic resection of the mass with concomitant uterine reconstruction using the “Protopapas-four overlapping flaps-suturing technique”. After a vertical posterior uterine incision, the mass was demarcated circumferentially by medial, lateral, anterior and posterior deeper myometrial incisions, performed with a monopolar electrode, and finally was excised from its myometrial bed. After resection with cold scissors of the surrounding adenomyotic myometrium, four overlapping myometrial flaps were used for reconstruction. The upper margin of the 1<sup>st</sup> flap was sutured to the deepest part of the myometrial bed, while the margin of the 2<sup>nd</sup> flap was sutured using the same technique obliquely over the 1<sup>st</sup> flap, in a right to left antero-posterior direction. The 3<sup>rd</sup> fundal flap was sutured over the 2<sup>nd</sup> flap and finally the 4<sup>th</sup> posterior flap was brought over the 3<sup>rd</sup> and was secured with single sutures along its side margins.

**Results**

The patient had an uneventful recovery and left hospital on the second postoperative day. At 6-months follow up she had complete resolution of dysmenorrhea.

**Conclusions**

The “Protopapas - four overlapping flaps - suturing technique”, represents a good option for reconstructing efficiently the uterus after non-communicating accessory uterine cavitated masses laparoscopic surgery. The advantage of this technique compared with simple blind horn resection is the reinforcement of the lateral uterine wall to reduce possible uterine rupture in case of future pregnancy.

<https://player.vimeo.com/video/951460799?autoplay=1>

# BEST SELECTED PhD

**ABST-0090 -**

**Best Selected PhD Abstracts**

**Pushing boundaries: exploring paths to refine advanced Minimally Invasive Surgery for endometriosis**

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## **Aim**

To further improve Minimally Invasive Surgery (MIS) in Gynaecology using a multidimensional approach.

## **Background**

Endometriosis, affecting 10% of women, causes substantial morbidity. Advanced MIS has emerged as a pivotal treatment modality in recent times for endometriosis. However, recurrence of symptoms poses a prevalent challenge, necessitating treatment optimization. Besides technical innovations, multiple aspects of MIS need to be considered to optimize endometriosis surgery.

## **Materials / Patients**

This thesis involves a multidimensional approach to improve MIS in endometriosis, including quality assurance by considering surgical volumes, surgical patient journey and evidence-based guidelines. Additionally, Fluorescence Guided Surgery (FGS) was broadly explored for enhanced visualization of endometriosis to optimize the surgical technique.

## **Methods / Results**

Although hospital volume increased for level 3 MIS procedures (shift over five years from 14% to 9% of hospitals performing <20/year), a decline in surgeon volume was observed (40% to 64% of surgeons performing <20/year) due to a relatively larger increase of performing surgeons. For level 4 procedures, still 79% of surgeons performed <20/year. The identified surgical patient journey offered valuable insights for patient counselling, indicating that multiple endometriosis surgeries (median of three) within one patient is common, without showing an increased complication risk associated with these repeated surgeries. However, endometriosis surgery does pose a significant risk of major complications, with bowel surgery being the most important risk factor (OR 3.50). FGS showed potential for visualization of endometriosis and therefore optimization of precision surgery. A non-specific fluorescent tracer, indocyanine green, appeared unable to accurately determine the margins of rectosigmoid endometriotic nodules, but significant findings were obtained regarding characteristics, location and extent of fibrosis in the nodule. Additionally, using transcriptomic analysis, 29 potential biomarkers were identified to be used as a target for specific fluorescent tracers. A representative subsample was immunohistochemically validated for protein expression in endometriosis compared to surrounding tissue, resulting in two most potential biomarkers, VCAN and MMP11.

## **Discussion**

To assure quality of advanced MIS in endometriosis, surgeon volumes need to increase either by centralization or reducing the number of performing surgeons. Patient journey showed that a deliberate stepwise surgical approach, if indicated, does not lead to an increased complication risk. However, with a significant complication risk present every surgery, unintended repeat surgery should be avoided, by being as radical as possible within the indication. Optimal visualization using FGS has the potential to enhance radicality, concurrently preserving healthy tissue. This thesis shows a promising role for FGS and provides various insights to continue research for FGS in endometriosis surgery.

## **Conclusion**

By approaching MIS on a multidimensional way, this thesis advocates for increased surgeon volumes and highlights the promising role of FGS in enhancing precision surgery for endometriosis.

## **Impact to Patients' Health**

This thesis gives practical insights for enhancing MIS for endometriosis through a multidimensional approach, which hold promise for improving patient outcomes.



**The effect of transobturator tape surgery on female sexual function at women with pelvis organs prolapse**

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<sup>1</sup>*Azerbaijan Medical University, Obstetrics- Gynecology, Baku, Azerbaijan*

**Aim**

The aim of our research is assessment of sexual function at women with vaginal prolapse associated with stress urinary incontinence.

**Background**

The objective was to evaluate sexual function, vaginal prolapse and quality of sexual life at women after transobturator tape procedure.

**Materials / Patients**

Totally at this case report we included 27 patients after vaginal surgeries. All patients were multigravida and had vaginal prolapse. Gold standard for assessment sexuality is Female Sexual Questionnaire scale and based on the prospective study of 27 patients. All patients undergone the anterior and posterior colporrhaphy and were assigned before and after vaginal surgeries after 6 and 12 month. The age of women participating in the study is between 44-58 years old.

At the initial stage of the disease all female there were complaints of nagging pain localized in the lower abdomen and lower back, dyspareunia, and sexual dysfunction (loss of vaginal sensitivity), urgent urine but after some period prolapse was most common gynaecological problems.

**Methods / Results**

The Female Sexual Function Index (FSFI) is a self-*controlled* questionnaire that includes 19 items and allows you to assess the characteristics of desire, arousal, lubrication (wetting), orgasm, achieving sexual satisfaction, and the presence of dyspareunia (painful sensations during sexual intercourse). The maximum possible score for this questionnaire is 36.

**Discussion**

Women often suffered from problems with stress urinary incontinence, a feeling of a full bladder, urinary tract infections, negatively affects sexual function and satisfaction and they had typical complaints like, disorders of desire, arousal, lubrication, orgasm and dyspareunia. In a more severe form (2 patients), a sensation of the presence of a foreign body was added to all symptoms, due to this condition intimate life were impossible.

**Conclusion**

The survey was conducted with patients before surgery and 6- 12 months after it. Before surgery, the range was 5-11 points. Positive outcomes include reduction in pelvic pain, absence urinary stress incontinence and increase quality of life we observe at 90% cases. After 12 months, the results increased 2-3 times and ranged from 26 to 34 points in 25 patients. In 2 patients, it was not possible

to achieve a significant improvement in the quality of sexual life due to age-related and individual physiological changes. The best results were obtained when performing vaginal surgery concomitant with transobturator tape procedure in the different stages of uterine prolapse.

### **Impact to Patients' Health**

Sensitivity, satisfaction from sexual intercourse improved and, most importantly, pain was eliminated. Transobturator tape procedure could be accompanied with vaginal prolapse surgery. Long-term results of our prospective study showed improved of female sexual index and quality of life.

**ABST-0150 -  
Best Selected PhD Abstracts**

**Adenomyosis: Diagnostic Features and Clinical Impact**

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**Aim**

To assess the effect of adenomyosis on the whole spectrum uterine contractile and reproductive function, starting with its diagnosis and ending with its influence on fertility and obstetric outcomes.

**Background**

Adenomyosis is being linked to infertility and obstetric complications. Non-invasive and accurate diagnosis, along with clarity into the impact adenomyosis has on fertility and pregnancy is lacking.

**Materials / Patients**

This thesis consists of ten chapters employing different study designs and populations, including: systematic reviews, single-centre and multi-centre retrospective and prospective observational cohort studies and one population-based study.

**Methods / Results**

A systematic review and meta-analysis on the existing MRI-based diagnostic criteria for adenomyosis was first conducted. Using these criteria, we then developed a multivariate diagnostic predictive tool for adenomyosis diagnosis using a retrospective cohort with histologically confirmed adenomyosis which performed well (AUC 0.776). We also were able to externally validate this method (AUC 0.832).

We introduced a quantitative speckle-tracking method on trans-vaginal ultrasound for the quantitative analysis of the uterine contractile function and investigated its potential to predict the success of IVF treatment. We defined reference values for normal uterine contractile function in a prospective cohort of healthy women using this method. A systematic review suggested that benign uterine abnormalities affect uterine contractile behaviour. Using this theory, we evaluated how uterine contractility features of healthy uteri compared to adenomyosis and observed significant differences across the menstrual cycle in women with adenomyosis.

We then investigated IVF/ICSI outcomes of a retrospective cohort of patients with MRI-diagnosed adenomyosis, endometriosis or both, compared to matched male infertility controls. We found that women with both adenomyosis and endometriosis have significantly fewer live births compared to controls (aOR 0.44). Adenomyosis patients with certain MRI characteristics have worse IVF/ICSI outcomes compared to controls, namely: combined endometriosis, a larger junctional zone, and the presence of myometrial cysts.

Finally, a retrospective analysis obstetric outcomes at the Dutch population-level data in women with histologically diagnosed adenomyosis was conducted. Women with adenomyosis demonstrated a

higher prevalence of hypertensive disorders, caesarean sections, small-for-gestational-age children and failure to progress in labour

### **Discussion**

The results of the studies included in this thesis support the need for further research into adenomyosis, but are largely retrospective, or preliminary exploratory findings, that need to be confirmed in future larger, prospective settings.

### **Conclusion**

Overall, we show that adenomyosis can be reliably diagnosed non-invasively on MRI and confirm its effect on the whole spectrum of uterine (reproductive) function.

### **Impact to Patients' Health**

With our results confirmed, we identify a new causal link with regards to impaired uterine function in adenomyosis (aberrant uterine contractility) which shows promise in explaining why adenomyosis is linked to adverse reproductive outcomes. Our results also support that women with suspected adenomyosis could also potentially benefit from altered clinical treatment with proven reduced fertility and more risk of obstetric complications.

**ABST-0187 -  
Best Selected PhD Abstracts**

**Methodology and tools for acquiring surgical skills related to minimally invasive surgery (MIS)**

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**Aim**

To describe, design and validate different tools for the assessment of minimal invasive surgical skills.

**Background**

Simulation can be a useful training tool for the acquisition of certain surgical skills, however the real question is how we should optimize the learning of surgical competencies through simulation. We developed three projects based on the levels of Miller's pyramid for achieving clinical competence.

**Materials / Patients**

We used the assessment with LASTT after attending two courses with different structured teaching methodologies to demonstrate which methodology had a greater impact on the acquisition of MIS skills.

Three groups of different experience participants repeated 30 times an exercise for orientating 30° camera in the uterine cavity in a hybrid hysteroscopic simulator that evaluated the learning curve through 7 different variables. After the exercise all the participants answered a 38 questions survey.

After simplifying a previous specific procedural tool for the assessment of laparoscopic hysterectomy, we compared the results of the assessment of a full video hysterectomy from two groups of experience, comparing as well when the assessment was performed by an unexperienced surgeon.

**Methods / Results**

46 residents attended a structured methodology course, and 213 residents attended an unstructured methodology one. Results of LASTT assessment show differences statistically significant in favour of the residents who attended the one with structured methodology.

86 participants divided in three groups of different experience participated in the study. The results of the assessment of the survey and the assessment of the learning curve of the 7 variables show the face, content and construct validity of this hybrid hysteroscopic simulator.

A total of 50 laparoscopic hysterectomy were assessed, 30 performed by an expert surgeon and 20 by a non-expert one. 47 surgeons participated in the assessment, 30 experts and 17 non-experts. Each video was assessed by 4 surgeons (2 experts and 2 non-experts). All the experts had better results than non-experts in the assessment. Two surgical steps, colpotomy and vagina closure found statistically differences in the comparison. Correlation coefficient between classes was 0.790 between the non-expert's assessment group and 0.683 between the experts assessment group.

**Discussion**

Assessment of skills after MIS courses is of vital importance, as it will allow us to know whether they have had a real impact on the student's knowledge. Validation of any tool is essential to consider it as a tool that can assess, and eventually certify MIS skills. Moreover, will provide the possibility of

facilitating formative evaluation, identifying the surgical steps that the student must improve, and summative evaluation, in order to accredit the clinical competence of gynaecology professionals.

### **Conclusion**

New teaching methodologies and new tools should be designed and used for improving learning curve in acquiring surgical skills in mis.

### **Impact to Patients' Health**

Improving surgeons' skills before entering the OR will improve surgical results, reducing complications

**ABST-0334 -  
Best Selected PhD Abstracts**

**Inter-observer concordance of the Fagotti score in laparoscopic assessment of epithelial ovarian cancer: a multicentre prospective study**

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**Aim**

To evaluate the inter-observer concordance of the Fagotti score in laparoscopic assessment for resectability in epithelial ovarian cancer (EOC), providing external validation beyond the promoting team's publications.

**Background**

EOC, predominantly diagnosed at advanced stages, necessitates accurate assessment for optimal cytoreductive surgery (CRS). The Fagotti score offers a laparoscopic predictive tool for resectability, yet external validation is lacking.

**Materials / Patients**

Fifteen laparoscopic videos of EOC cases were collected from 11 centres in France. Eleven gynaecological oncology surgeons blindly reviewed these videos, assigning Fagotti scores based on predefined parameters.

**Methods / Results**

Inter-observer concordance was assessed using intraclass correlation coefficient (ICC). Overall, 165 blind reviews were conducted. The Fagotti score demonstrated good inter-observer concordance (ICC: 0.83, 95% CI: 0.71-0.93). Notably, mesentery involvement, stomach infiltration, and liver damage were identified as least explorable parameters. Adjusted Fagotti score and modified Fagotti score showed moderate concordance, whereas the explorable Fagotti score demonstrated excellent concordance (ICC: 0.86, 95% CI: 0.75-0.94).

**Discussion**

Our study reaffirms the reproducibility of the Fagotti score in laparoscopic assessment of EOC resectability, extending validation beyond previous publications. The identification of non-explorable parameters underscores the need for standardized exploration techniques and further research on their impact.

Comparatively, the Italian Olympia-MITO 13 study conducted by Fagotti et al. assessed the reproducibility of the Fagotti score in describing intra-abdominal tumour spread. While their study included 120 patients across 24 satellite centres, ours noted a slightly higher percentage of poor-quality videos. Notably, certain parameters were deemed non-assessable by surgeons, aligning with findings from the MITO-13 study.

Pinto's study is based on the fact that imaging is not effective in detecting small-volume carcinomatosis. Laparoscopy may directly visualize intraperitoneal involvement, but it has inherent

limitations when investigating tumours behind the gastrosplenic ligament, in the lesser sac, mesenteric root or when exploring the retroperitoneum. The major benefit of laparoscopy appears as an ultimate triage step in situations where the imaging diagnosis is uncertain regarding resectability and the presence of diffuse small volume carcinomatosis. Similarly, Petrillo et al. validated Fagotti's score as a precise predictor of complete primary debulking surgery (PDS) in EOC patients, proposing a score threshold of 10 for assessing complete resectability.

Despite our study's biases and limitations, such as a small sample size and inherent biases in laparoscopy video editing, its strengths lie in its prospective, multi-centre design and representative study population. This pilot study contributes to the ongoing refinement of laparoscopic assessment techniques in EOC management.

### **Conclusion**

The Fagotti score exhibits good inter-observer reproducibility in laparoscopic assessment for EOC resectability. Further studies are warranted to address non-explorable areas and refine scoring methodologies.

### **Impact to Patients' Health**

Validating the Fagotti score enhances its utility in guiding surgical decision-making for EOC patients, potentially improving overall survival outcomes by optimizing cytoreductive surgery.



**ABST-0475 -  
Best Selected PhD Abstracts**

**Ultrasound studies of the natural history of endometriosis**

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**Aim**

- To determine the inter- and intra-observer reproducibility of ultrasound for the measurement of endometriotic lesions.
- To describe the development of endometriosis in a previously normal pelvis and the natural history of endometriosis in women who manage their condition expectantly.
- To determine the prevalence and morphological changes of deep and ovarian endometriosis in women during pregnancy and determine the impact on obstetric and neonatal outcomes.

**Background**

The aetiology and true prevalence of endometriosis remains unknown. The risk of disease progression in women who opt to manage their condition expectantly is unclear. Pregnancy is known to cause morphological changes to endometriosis in pregnancy, which may mimic malignancy. Data regarding the prevalence and natural history of endometriosis in pregnancy is lacking. Recent literature has raised concern about adverse pregnancy outcomes in women with endometriosis, but available data is heterogenous in nature and the true impact is uncertain.

**Materials / Patients**

The thesis comprises 7 ultrasound studies, performed at a single centre with a standardised approach.

**Methods / Results**

- The reproducibility of ultrasound for measurement of endometriotic lesions was assessed in 50 consecutive women. Interobserver agreement was good/excellent and intraobserver agreement was excellent.
- Transvaginal ultrasound was used to:
  - observe morphological changes that precede the development of deep endometriosis in women with haemoperitoneum that was managed expectantly
  - observe the natural history of endometriosis in women who managed their condition expectantly, with evidence of disease progression in 37% of women with nodules and 22% with endometrioma
  - assess the prevalence of endometriosis in 1341 women in early pregnancy. The prevalence was estimated to be 4.9%, and significantly associated with ethnicity, subfertility, congenital uterine anomalies and fibroids
  - observe the natural history of endometriosis in 65 pregnant women. For women with endometrioma, 85.3% experienced regression and 5.9% growth. For women with nodules, 84.3% experienced regression and 3.9% growth. Decidualisation was observed in 50.0% of women with endometrioma and 49.0% with nodules
  - screen for endometriosis in 503 pregnant women. Endometriosis was not significantly associated with increased odds of preterm delivery but was associated with increased odds of postpartum haemorrhage during Caesarean section (aOR 3.64 95%CI 2.07–6.35; P<0.001) and admission to the neonatal unit (aOR 3.24, 95%CI 1.08–9.73; P = 0.036).

**Discussion**

Ultrasound is a useful and reproducible tool to diagnose and observe the morphological changes in endometriotic lesions in non-pregnant and pregnant women.

**Conclusion**

The studies in this thesis describe the development of deep endometriosis in a previously normal pelvis and the natural history of deep and ovarian endometriosis, when managed expectantly. Where transvaginal ultrasound was used to screen for endometriosis in pregnancy, we observed that women with endometriosis had increased odds of obstetric and neonatal complications.

**Impact to Patients' Health**

Provides evidence to support clinical care of women with endometriosis, novel evidence about the natural history of endometriosis and the implications in pregnancy.

**The rate of periaortic metastasis without pelvic lymph node involvement in uterine cancer**

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**Aim**

This study aimed to determine the frequency of lymph node metastasis and the frequency of isolated paraaortic lymph node metastasis in endometrioid type endometrium cancer patients who underwent staging surgery and to question the necessity and anatomical level of lymphadenectomy.

**Background**

Determination of isolated paraaortic lymph node metastasis frequency and risk factors is important for conservative approaches. Because when paraaortic lymph node dissection is not performed in patients with negative pelvic lymph node or negative sentinel lymph node and in the presence of isolated paraaortic lymph node metastasis; patients with Stage III C2 disease are actually considered to be in the low stage and the adjuvant treatment is inadequate and consequently the prognosis is adversely affected.

**Materials / Patients**

Between 2000-2015, 417 patients with endometrial cancer were included into this study. Histologic grade I-III, pelvic and paraaortic lymph node dissection cases with endometrioid histologic type tumor were included in the study. Survival and recurrence-related factors were determined by univariate Cox regression analysis and Significant predictors were included in the multivariate Cox regression model and independent predictors were found.

**Methods / Results**

Positive LVAI was detected in 23% of the patients, positive cervical-glandular involvement was detected in 25.2% of the patients and positive cervical-stromal involvement was detected in 15.3% of the patients. The rate of patients with positive pelvic lymph node metastasis (LNM) was 10.3% and the rate of positive patients with paraaortic lymph node metastasis was 5.3%. The overall frequency of isolated paraaortic lymph node metastases was found to be 1.19% in total population. The median total lymph node count was 30 (range 5-108). The proportion of patients with a total number of lymph nodes less than 10 was 2.6% (n: 11). There was no significant difference in risk of developing recurrence when patients with isolated paraaortic lymph nodes were compared to patients without isolated paraaortic lymph nodes. In all patients with isolated paraaortic LNM, tumour size was 2 cm and among these patients more than 40% were grade III. In addition, common independent predictors of retroperitoneal LNM and paraaortic LNM were found to be LVAI and cervical-glandular involvement.

**Discussion**

LVAI and cervical glandular involvement were determined as common independent markers for retroperitoneal LNM and paraaortic LNM in our study.

## **Conclusion**

These independent predictors are important because they directly or indirectly cause risk for survival and recurrence depending on the relationship of histological factors to each other. It is important to mention that lymphadenectomy is indicated in these findings. In addition, in patients with isolated paraaortic LNM, a large tumour size and low survival may be considered as an indication of the necessity of lymphadenectomy in these patients.16:12Message

## **Impact to Patients' Health**

The determination of the rate of periaortic lymphatic metastasis contributes to the improvement of adjuvant therapy and its related prognosis.

# ABSTRACTS IN PLENARY SESSIONS

**ABST-0020 -  
Chinese Session**

**Polyps' treatment with the Intrauterine Bigatti Shaver (IBS®): A 1000 patients retrospective descriptive analysis.**

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## **Background**

To evaluate the safety and efficacy of hysteroscopic tissue removal system for endometrial polyps' treatment.

## **Methods**

This retrospective cohort study included 1000 patients with endometrial polyps diagnosed at Renji hospital between June 2019 and January 2021. The diagnosis was suspected at 2D transvaginal ultrasound and confirmed by a diagnostic hysteroscopy with the Campo Trophy-scope. All patients were treated with the 24Fr Intrauterine Bigatti Shaver (IBS®), with recurrence rates evaluated by 2D ultrasound after 12, 24 and 36 months postoperatively.

## **Results**

Patients' mean age was 47.8 years (range 22-86) with a mean childbirth rate of 1.2 (range 0-7). 284 (28.4%) patients were postmenopausal, and 324 (32.4%) patients had abnormal uterine bleeding. Average surgery duration was 12.5 minutes (range 1-55 minutes) with a mean fluid deficit of 146.8 mL (range 0-1500 mL). Four complications included three (0.3%) intraoperative bleeds and one (0.1%) cervical laceration. No major complication like fluid overload or uterine perforation occurred. Only 3 (0.3%) cases were diagnosed of polyps recurrence by ultrasound and confirmed by diagnostic hysteroscopy at a 12-month follow up, 38 (3.8%) cases were confirmed polyps recurrence at a 24-month follow up and 91 (9.1%) at a 36-month follow up.

## **Conclusions**

This study shows that polyp's removal with the Intrauterine Bigatti Shaver (IBS®) is a very safe and precise hysteroscopic treatment. The additional removal of the functional endometrial layer does not result in adhesion formation or post operative complications but in a very low recurrence rate of polyps at 12, 24 and 36-month follow-up.

**ABST-0119 -**

**Enhancing Fertility: Exploring Innovations in Reproductive Surgery**

**Uterine inflammatory characteristics following caesarean delivery**

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**Background**

An incomplete healed scar (niche) is a long-term complication of caesarean delivery (CD), and is associated with symptoms such as postmenstrual spotting, dysmenorrhea, chronic pelvic pain dyspareunia and subfertility. It has been reported that a niche can reduce the chances of embryo implantation and may lead to spontaneous miscarriages if the implantation is close to or in the niche. One possible theory refers to inflammatory process at the area of the niche that harms the endometrial environment, however, data is limited, and this theory is yet to be proven. Due to the aforementioned, the aim of this study is to compare the inflammatory characteristics of women with cesarean uterine scar to those without.

**Methods**

This is a prospective study conducted at a single tertiary medical centre, including all women visiting hysteroscopy ambulatory clinics for diagnostic hysteroscopy. Study population included women with caesarean uterine scar (study group) that were compared to those without (controls). Women six months from delivery, breastfeeding, with abnormal finding on hysteroscopy or uterine scar other than caesarean were excluded. A syringe was attached to the outlet of the diagnostic hysteroscope and the first 5 cc of 0.9% normal saline fluid used for hydro dissection were collected. The samples were analysed for inflammatory factors levels, including: GM-CSF, IFN-gamma, IL-1, IL-2, IL-5, IL-6, IL-7, IL-13, IL-15, IL-17, IL-17F, IL-22, IL-23, IL-31, IL-36 and TNF-alpha. Transvaginal ultrasound was performed after hysteroscopy for women in the study group to characterize the uterine scar. Demographic and clinical characteristics were collected from the women's medical files. Primary outcome was defined as the difference in inflammatory factors level.

**Results**

A total of 80 women met inclusion criteria, of them 29(36%) had history of CD and 51(64%) had no uterine scar. Women's demographic and clinical characteristics were comparable between groups, excluding parity that was higher in the CD group [2(1-3) vs. 1(0-3); p=0.009]. No difference was found in the level of any of the 17 factors collected. Additional sub-analysis was done comparing infertility indication for performing the procedure to all other indications. IL 33 was found significantly higher in the infertility group [25.60(2.80-185.83) vs. 5.98(0-43.84pg/ml; p=0.02]. While comparing the 9 women with infertility to the 20 women without infertility in the CD group, no difference was found in uterine scar characteristics, however, IL 33 was found to be 25 times higher in the infertility group [61.23(19.84-169.44) vs. 4.61(0-33.72) pg/ml; p=0.004]. This difference was not demonstrated in women without CD (p=0.29).

## **Conclusions**

Women undergoing evaluation due to infertility with history of uterine scar have significantly higher level of inflammatory marker IL33. This novel finding might be grounds for future treatment for this population.

**ABST-0163 -**

**ESGE I GCH I Hysteroscopy: from fundamentals to Advanced Procedures**

**Effectiveness of hysteroscopy in fertility outcomes: a prospective randomized controlled study**

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**Background**

A lot is discussed about the efficacy of hysteroscopy in improving fertility. Over the last years, several new trials have been added to the available literature, however the results are still debated. The aim of this prospective randomized controlled study is to assess prospectively the impact of diagnostic and operative hysteroscopy on reproductive outcomes of infertile women with and without intrauterine abnormalities.

**Methods**

1200 infertile women, who came to our clinic from 01-01-2013 until 31-12-2022 were prospectively, blindly randomized to group A, hysteroscopy group, versus group B, no hysteroscopy group, prior to the first assisted reproductive technique (ART) or after at least one failed attempt. All women underwent hysterosalpingography and transvaginal sonography before the entrance to the study, so that women with tube pathology could be excluded. Infertile women with detected intrauterine pathology by ultrasound were included in separate subgroup analysis. Live birth rate (LBR) was the primary outcome of the study. Secondary outcomes were clinical pregnancy rate (CPR) and pregnancy loss rate (PLR). The follow up time was at least 1 year after the hysteroscopy. The hysteroscopies were all performed by the same experienced gynaecologist. All statistical analyses were conducted using SPSS Statistics, version 25.0 (IMB Corp. Armonk, NY USA). P values <0,05 were considered statistically significant.

**Results**

1200 infertile women, who came to our clinic from 01-01-2013 until 31-12-2022, with ages 27 until 39 years old, which met the including criteria, were prospectively blindly randomized to group A (600 women), versus group B (600 women). The two groups were well matched according to age, hormonal, status, AMH (Anti mullerian Hormone), BMI (body mass index), secondary diseases, sperm analysis of the man, ART protocol, embryos quality and other characteristics, to avoid bias. Compared to no hysteroscopy before first ART attempt, we have showed that hysteroscopy increased statistically significant the LBR (P < 0.05), confirmed by subgroup analysis for women with failure after one or more ART cycles (P < 0.05). Hysteroscopy also increased statistically significant the CPR (P < 0.05), confirmed in subgroup analysis for both implantation failure (P < 0.05) and before first ART (P < 0.05). The operative hysteroscopy in our study increased statistically significant the LBR and CPR when used to treat intrauterine pathologies (polyps, submucosal myomas, adhesions, endometritis, diaphragms) in the subgroup of known (P < 0.05) and in the subgroup of newly found pathologies at the time of the hysteroscopy (P < 0.05) and 60 % of these women could avoid ART.

**Conclusions**

Our study revealed significant evidence in efficacy of hysteroscopy before ART in women with history of infertility. Hysteroscopic evaluation of the uterine cavity and appropriate hysteroscopic therapy should be considered as an important technique in all infertile women before undergoing ART.



**ABST-0301 -**

**Res-ART When to perform reproductive surgery or IVF ?**

**The impact of endometriosis on the expected age-specific basal antral follicle count (AFC); a retrospective study of 7573 patients.**

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## **Background**

Endometriosis is a prevalent chronic medical disorder that is often associated with infertility. The expected age-specific, basal antral follicle count (AFC) in patients with endometriosis and/or endometriomas has not been previously investigated. Our aim was to delineate the expected age-specific basal antral follicle count (AFC) in patients with endometriosis and/or endometriomas, concurrent conditions such as leiomyomas and/or previous laparoscopic cystectomy.

## **Methods**

This is a retrospective observational study of women presenting to a gynaecology diagnostic unit for investigation of symptoms or routine check-up, and undergoing transvaginal ultrasound examinations, between the 1<sup>st</sup> of January 2017 and 22<sup>nd</sup> of September 2022. The relationship between AFC and age was examined to develop an AFC nomogram independent of the stage in the menstrual cycle. The AFC corresponding to the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup> and 90<sup>th</sup> centiles for each patient and age group have been calculated.

## **Results**

We analysed 8821 data entries from 7573 women. A total of 4256 patients with no previous gynaecological conditions (PCOS, endometriosis, adenomyosis, previous surgical operations to fallopian tubes and/or ovaries) and not on any form of hormonal contraception were employed as the control group. A total of 1991 patients with endometriosis were identified, of whom 358 had endometriomas. Both patients with (P=0.0029) and without endometriomas (P=0.048) displayed a significantly reduced AFC compared to the nomogram population across the ages of 24-40. The presence of endometrioma reduced the basal AFC by 23% (P=0.047). In our dataset, 35.05% of endometriosis patients had a concurrent diagnosis of leiomyoma (N=544); when this group was compared to the nomogram population, no statistical difference could be discerned (P=0.72). Interestingly, the AFC distribution for patients who had undergone surgery for endometrioma significantly differed from those who did not (P=0.022), and highly resembled the AFC distribution of the nomogram population. Both nomogram and condition-specific populations displayed a gaussian relationship between AFC and age.

## **Conclusions**

A diagnosis of endometriosis appears to reduce basal AFC by 8% while the presence of endometrioma further reduces basal AFC by 32%. These findings highlight the need to tailor management of affected patients based on individual fertility wishes and to consider fertility preservation in patients wishing to conceive, especially prior undertaking any excisional surgery for

endometriosis. Further studies are required incorporating subtypes and severity of endometriosis to specifically establish how the disease may impact basal AFC and in turn fertility options.

**ABST-0502 -**

**Urogynaecology I Breaking Barriers in Urogynaecology: Unveiling the Latest Innovations and Concepts**

**Study of the feasibility of outpatient sacrocolpopexy by laparoscopy**

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**Background**

Laparoscopic sacrocolpopexy (LSCP) is currently the gold standard surgical technique for treating pelvic prolapse. This study aimed to evaluate the feasibility of laparoscopic sacrocolpopexy in ambulatory care.

**Methods**

This prospective study was conducted to evaluate the feasibility of LSCP in women who visited the outpatient department of obstetrics and gynaecology at the University Hospital of Strasbourg between July 2018 and December 2021. All women with indications for laparoscopic sacrocolpopexy for prolapse treatment who were willing to be treated as outpatients were included. The main criterion of the study was to evaluate the rate of re-hospitalization between discharge from the outpatient department after LSCP and postoperative follow-up consultations.

**Results**

Among the whole population (57/200, 28.5%) included included, 4 (7%) were hospitalized. The quality of life was not altered with a preserved EuroQol (EQ-5D) quality of life score with a mean score of  $73 \pm 18.4$  standard deviation (SD) 95% confidence interval (CI) (67.9; 78.1) on postoperative day 3 (D3) and  $91.2 \pm 16.3$  SD 95% CI (86.2–96) on D30. On D1, D2, D3, and D7, the anxiety rate evaluated by State-Trait Anxiety Inventory score (STAI Y-A) remained low, with mean scores of  $24.8 \pm 9.6$  SD 95% [23.4–26.5] on D30. All patients were satisfied or very satisfied with the procedure and outpatient management, with an average score of 9.6/10 (range: 8–10).

**Conclusions**

This prospective, monocentric study evaluating the feasibility of outpatient LSCP reported demonstrated low rates of complications and re-hospitalization after outpatient management. Furthermore, the patients' quality of life was not altered, and they patients were satisfied with this type of management.

**ABST-0556 -**

**Chronic Pelvic Pain | Empowering Hope: Strategies for Managing Chronic Pelvic Pain**

**Prevalence of Pelvic Pain, Menstrual Problems, and their Association with Endometriosis in Adolescents: A Population-Based Study**

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**Background**

Pelvic pain, dysmenorrhea, and heavy menstrual bleeding significantly affect a considerable portion of adolescent girls, although the true prevalence of these symptoms remains unclear. The symptoms can profoundly impact various facets of life, including quality of life, education, relationships, and social and emotional well-being. They stand as leading causes of school absenteeism and missed activities, with up to 20-40% of girls reporting school absences due to period pain. Adolescents represent one of the most underserved populations concerning menstrual health problems as well as the diagnosis of endometriosis. The delay in diagnosis and treatment of endometriosis in adolescents not only adversely impacts physical and mental well-being but also risks compromising reproductive potential in the long-term.

**Methods**

The aim of this study was to assess the prevalence of pelvic pain, dysmenorrhea, heavy menstrual bleeding, and subsequent endometriosis in adolescents aged 13-19 years over a 30-year period from 1991 to 2020. Data were obtained from the Clinical Practice Research Datalink (CPRD), which collects anonymized data from General Practitioner (GP) practices across the UK, covering 60 million patients. The first records of adolescents (aged 13-19 years) contacting GPs with pelvic pain, dysmenorrhea, and menorrhagia were identified. These records were linked with secondary care data to identify adolescents who received a surgically confirmed diagnosis of endometriosis by combining ICD codes for endometriosis with relevant surgical codes for laparoscopy or other gynaecological surgery. Data on social class and geographical location were also collected. Prevalence of symptoms was calculated in the general population as well as in those with a confirmed diagnosis of endometriosis.

**Results**

The overall population prevalence (as calculated by healthcare contact) of pelvic pain, dysmenorrhea, and menorrhagia in adolescents between 1991 and 2020 (per 100,000) was 237, 1048, and 690 respectively. The corresponding prevalence of symptoms of pelvic pain and dysmenorrhea in adolescents who subsequently received a surgically confirmed diagnosis of endometriosis was 17.3% and 36.5%. Nearly one out of five adolescents (21.5%) who experienced heavy periods received a subsequent diagnosis of endometriosis. Further results regarding prevalence of symptoms by decade, social class, and geographical location will be presented in the conference. Data will also be presented on the likelihood of endometriosis with symptom combinations.

## **Conclusions**

This is the largest population-based study to our knowledge to date quantifying the prevalence of pelvic pain, dysmenorrhea, and menorrhagia in adolescents and their subsequent link with endometriosis. The data from our study will assist clinicians in identifying adolescents at a higher risk of developing endometriosis and facilitate earlier diagnosis of the condition. Moreover, the data on the healthcare burden of these symptoms in the population would be useful for policymakers in formulating policies around menstrual health and endometriosis.

**ABST-0564 -**

**Urogynaecology I Maximizing Success: Effective Management Strategies in Urogynaecology**

**Multicentre study on levator ani muscle fixation in laparoscopic colposacropexy (FIMEA study) preliminary results**

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**Background**

Laparoscopic colposacropexy is defined as a highly complex technique. A simplification of the technique without compromising its results would contribute to the expansion of its application.

Primary Objective: To assess if there are inferior anatomic results of the colposacropexy technique with fixation of the posterior mesh to the vaginal vault without the dissection of the rectovaginal space (group B) compared to fixation of the posterior mesh to the levator ani muscle (group A) in apical prolapse stages II/IV.

Secondary Objective: To evaluate whether there are inferior functional outcomes (PFDI-20 and PISQ-12 questionnaires) of the colposacropexy technique in group B compared to group A.

**Methods**

Randomized multicentre clinical trial of patients undergoing laparoscopic colposacropexy surgical treatment for stage II-IV apical prolapse. Surgical technique will be randomized.

Inclusion criteria: Primary or recurrent apical prolapse in stage II-IV (POP-Q classification) with or without anterior and/or posterior defect. Exclusion criteria: previous prolapse surgery with mesh.

Variables related to anatomic prolapse (POP-Q classification points), and scores on the PFDI-20 (domain specific: POPDI-6, CRADI-8, UID-6) and PISQ-12 questionnaires will be collected both preoperatively and postoperatively (follow-up at 1, 6, and 12 months).

Outcome Measures: Objective anatomic success is defined as postoperative POP-1 stage 0-I. Functional success is defined as an improvement of  $\geq 15$  points per domain or 45 points in total score (PFDI-20) and improvement of  $\geq 6$  points in PISQ-12.

**Results**

Results are presented from the first 100 patients recruited (September 2022 - December 2022), 52 women in group A and 48 in group B.

The groups were homogeneous with respect to baseline characteristics.

Basal prolapse characteristics defined by POP-Q system had no differences in apical, anterior or posterior prolapse. For that reason the type and severity of prolapse was comparable between

groups.

There were no differences in baseline PFDI-20 scores, neither in baseline sexual function (PISQ-12).

Results of 49 patients (27 group A and 22 group B) who completed six months follow-up revealed successful anatomical correction.

Regarding functional outcomes, no differences were found between the techniques in POPDI-6 ( $p=0.465$ ), CRADI-8 ( $p=0.382$ ) and UDI-6 ( $p=0.666$ ) scores or in PISQ-12 ( $p=0.699$ ) scores at postoperative patient six months follow-up.

The study is currently under development supported by a Spanish National Gran (Ministerio de Ciencia e Innovación-Instituto Salud Carlos III (AES 2021): PI 21/00852).

### **Conclusions**

Based on preliminary results, dissection and placement of the mesh in the rectovaginal space does not appear to be associated with better anatomical and functional results than the simplified technique.

**ABST-0616 -**

## **Adenomyosis I From microstructure to macroscopic appearance**

### **Validation of a sonographic multivariate prediction model for diagnosing adenomyosis**

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### **Background**

The ultrasound diagnosis of adenomyosis involves various ultrasound signs; however, the diagnostic value of each sign varies. The primary objective of this study was to validate a previously developed multivariate prediction model for diagnosing adenomyosis using transvaginal ultrasound (TVS) that assigns weights to predictors based on their diagnostic performance, thus aiding the interpretation of all signs as a total. The original model showed a very good test quality (area under the curve, AUC 0.86). We assessed the model's performance in the hand of an expert in adenomyosis diagnosis and less experienced (novice) examiners. We further compared the model's performance with the examiners' subjective overall impression of the presence of adenomyosis.

### **Methods**

Prospective, observational, multicentre study, performed between 02/2020–06/2022. All consecutive premenopausal women aged 25-52 years, scheduled for hysterectomy due to benign indications were eligible. All underwent preoperative 2D and 3D TVS by one of four gynaecology specialists with no specific training in TVS. 3D volumes and videos were stored. Nine diagnostic predictors as previously defined were used in the model: Hyperechoic islets and subendometrial buds and stripes, fan-shaped shadowing, myometrial cysts, globular shape, thickest/thinnest ratio of uterine walls, maximum width of the junctional zone (JZ) in sagittal plane, regular JZ, grade of dysmenorrhea. The expert performed the assessment on the stored images, videos, and 3D volumes. The diagnostic reference standard was a detailed histopathological analysis of the hysterectomy specimens. Morcellated specimens were excluded. The weight of each sign ( $\beta$ ) was predefined in the original study. The diagnostic performance (AUC, sensitivity, specificity) of the model was calculated.

### **Results**

Of 528 included women, 464 were in the final analysis. Adenomyosis was histologically confirmed in 254/464 (54.7%). For the expert, the model's diagnostic performance was good [AUC 0.72 (95% CI 0.67–0.77), sensitivity 64% (95% CI 52–70%), specificity 72% (95% CI 58–78%)]. The expert's subjective assessment of adenomyosis (present yes/no) had a sensitivity of 59%, specificity of 80%, accuracy of 68%, PPV of 78% and NPV of 61%. In contrast, the model's performance in the hands of the novice examiners showed a poor test quality [AUC 0.61 (95% CI 0.55–0.66), sensitivity 65% (95% CI 52–73%), specificity 58% (95% CI 48–65%)]. This was comparable to their subjective assessment of adenomyosis (sensitivity 72%, specificity 54%, accuracy 64%, PPV 65%, NPV 61%).



## **Conclusions**

The validated prediction model for diagnosing adenomyosis showed a good test quality for the expert, but a poor performance for the novices and did not improve their diagnosis overall. Less experienced examiners tend to over-diagnose adenomyosis signs, leading to a low specificity and a moderate diagnostic accuracy, also affecting the test quality of the model. These findings underscore the importance of expertise in interpreting TVS for an accurate diagnosis of adenomyosis.

**ABST-0646 -**

## **Hysteroscopy I From diagnosis to surgery**

### **Effects of hysteroscopic metroplasty on uterine contractility in women with septate uterus: quantitative ultrasound measurement of uterine contractility pre e post treatment**

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#### **Background**

To investigate the differences in uterine contractility in women with septate uterus compared to women with normal uterus throughout the menstrual cycle and to evaluate if the restoration of normal cavity after hysteroscopy metroplasty modify uterine contractility.

#### **Methods**

This multicentric observational prospective study was carried out in the outpatient gynaecology departments of the Catharina Hospital in Eindhoven, Netherlands and in the University of Naples, Federico II, Italy from February 2023 and March 2024. Women with diagnosis of septate uterus in reproductive age, scheduled for hysteroscopic metroplasty, were included. Patients underwent 2D-3D transvaginal ultrasound and a 2D 4-minute video was recorded in a median longitudinal section of the uterus. Records were analysed using a dedicated spot tracking algorithm by 2D transvaginal ultrasound measurement. The characteristics of uterine contractility were expressed in terms of frequency, amplitude, speed, direction, and coordination. The results were compared with the uterine peristalsis of a control group "normal uterus", already analysed in our previous study. After hysteroscopic metroplasty, second 2D-3D transvaginal ultrasound with video recording was performed to compare characteristics of uterine peristalsis pre and post treatment.

#### **Results**

Regardless cycle phases, trends of decreased frequency, velocity and amplitude, and worsened contraction coordination were seen statistically significantly in patients with septate uterus compared with healthy controls. On the other hand in Luteal phase, where, contractions are relatively quiescent in order to facilitate embryo implantation an increase of contraction frequency ( $1.27 \pm 0.21$  vs  $1.10 \pm 0.12$ ,  $p=0.040$ ), contraction velocity ( $0.90 \pm 0.23$  vs  $0.70 \pm 0.09$ ,  $p=0.027$ ), contraction amplitude ( $1.27 \pm 0.21$  vs  $1.10 \pm 0.12$ ,  $p=0.040$ ) and a worsening in contraction coordination ( $0.41 \pm 0.16$  vs  $0.20 \pm 0.08$ ,  $p=0.006$ ) were reported in septate uteri. In detail, data demonstrated more impairment of uterine contractility in partial septate uterus rather than complete septum, when compared with normal uterus. After hysteroscopy metroplasty, uterine peristalsis uterine was significantly improved, taking on values close to the normal uterus. This was statistically significant, regardless cycle phases, with a higher frequency ( $1.67 \pm 0.18$  vs.  $1.39 \pm 0.19$ ), higher velocity ( $0.84 \pm 0.21$  vs.  $0.58 \pm 0.21$ ) compared with pre-treatment contractility.

## **Conclusions**

Uterine contractility seems differs in patients with septate uterus compared with healthy control with improvement of uterine peristalsis after hysteroscopic metroplasty. This could suggest a new etiologic mechanism for the infertility a recurrent miscarriage in patients with septate uterus and open the door to hysteroscopy metroplasty as treatment to resume normal uterine contractility.

**ABST-0689 -**

## **Endometriosis I Beyond the Scalpel: Non-Surgical Strategies for Managing Endometriosis**

### **Are 15-lipoxygenase derived lipids key in the management of endometriosis?**

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#### **Background**

Endometriosis therapy with leuprolide acetate (Prostap<sup>®</sup>), a potent analogue of gonadotropin-releasing hormone, is widely used to alleviate symptoms and shrink endometriotic lesions prior to surgery. However, this treatment can only be offered for short-term relief due to the induced hypo-oestrogenic side effects. Our aim was to examine the effect of Prostap<sup>®</sup> on inflammatory mediators and their downstream effectors to elucidate disease pathogenesis and potential new therapeutic targets.

#### **Methods**

Endometrial tissue (eutopic; n=35) and ovarian endometriomas (n=10) were obtained from consenting women at laparoscopy undergoing investigation and/ or treatment for endometriosis. Prostap<sup>®</sup> was administered as a single subcutaneous or intramuscular injection (3.75mg) every month for up to 6 months before surgery and studies were carried out in accordance with the Local Regional Ethics Committees.

Samples were analysed using liquid chromatography coupled to tandem mass spectrometry with electrospray ionisation (UPLC/ESI-MS/MS) using an array of 79 lipid mediators. Tissue histology was observed by haematoxylin and eosin (H&E) staining and immunohistochemistry was performed for 15-lipoxygenase (15-LOX) and the transcription factor peroxisome proliferator-activated receptor-gamma (PPAR $\gamma$ ).

#### **Results**

Treatment with Prostap<sup>®</sup> caused partial decidualisation of endometrial stromal cells and atrophy of glands. Lipidomic analysis showed reduced prostaglandin (PG)E<sub>2</sub>, PGD<sub>2</sub> and  $\Delta$ 12 PGJ<sub>2</sub> in eutopic endometrium from the untreated endometriosis group compared with controls ( $p < 0.05$ ). Endometrial lipid levels were restored in samples from women taking Prostap<sup>®</sup>. Oxygenated lipids were also present at lower concentrations in ovarian endometriomas, with reductions most prominent for 15-LOX derived metabolites, which are endogenous ligands for PPAR $\gamma$ . Similarly, expression of 15-LOX proteins but not PPAR $\gamma$  was decreased in ovarian endometriomas compared with eutopic endometrium ( $p < 0.01$ )

#### **Conclusions**

Our findings indicate that 15-LOX, a key lipid-metabolising enzyme, contributes to the pathophysiology of endometriosis. 15-LOX derived lipids have been shown to bind and activate PPAR $\gamma$ . Low availability of these products in endometriotic tissues could dampen its roles in inflammation resolution and cell apoptosis. Interestingly, not only did Prostap<sup>®</sup> treatment cause endometrial atrophy, it normalised lipid metabolism. This provides new insights into the endometrial

lipidome, which could inform new avenues of endometriosis treatment. Analysis is being further performed according to patient history.

**ENDOMIS study: the impact of minimally invasive surgery in endometrial cancer staging in the molecular era**

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**Background**

Nowadays, In the staging of endometrial cancer, robotic surgery (RS) and laparoscopy (LPS) are now considered interchangeable. Recently, the pathogenesis of endometrial cancer (EC) has been enriched with innovative genomic and molecular information, supported by the comprehensive genomic analysis of The Cancer Genome Atlas (TCGA). In this context, there is no recent evidence to assess the role of minimally invasive surgery in EC staging in this new way of targeting this gynaecological cancer.

The aim of this study is to analyse and draw potential differences between robotic surgery (RS) and laparoscopy (LPS) in endometrial cancer staging in the era of molecular classification.

**Methods**

In this single-institution retrospective study, we included 1987 consecutive patients with presumed uterine-limited EC who underwent minimally invasive surgical staging. Only patients with >6 months follow-up were included in the analysis: 1405. We compared patients treated with LPS and RS on the basis of perioperative, histopathological, molecular and disease-free survival (DFS) outcomes. Immunohistochemical (IHC) analyses were performed to assess the presence/absence of oestrogen receptors (ER-negative, ER- or ER-positive, ER+) and other molecular factors (i.e. p53 mutation, p53abn; and mismatch repair mutation status, MMR-deficient, MMRd vs. MMR-proficient, MMRp). Next-generation sequencing was used to detect POLE mutations. The study population was stratified in 1) MMRp, p53WT, ER+; 2) MMRp, p53WT, ER-; 3) MMRd, p53WT/mut; 4) MMRp/p53mut and 5) POLE mut. Then, we investigated the impact of the surgical rout in each of these 5 molecular EC classes.

**Results**

The two cohorts (815 treated with LPS and 590 treated with RS) were constitutively heterogeneous with respect to BMI, histotype and molecular class (p<0.05). Multivariate analysis showed that age, histotype, molecular class but not surgical route influenced DFS. The Kaplan-Meier survival curves

confirmed that LPS and RS were comparable in MMRp\ER+, MMRd, and p53mut EC patients ( $p>0.05$ ) for DFS, whereas resulted to be statistically different in MMRp\ER- EC patients, with the RS demonstrating a clear advantage with respect to LPS in terms of DFS ( $p=0.043$ ). In this cohort, patients were statistically different in terms of BMI and histology (aggressive vs. non-aggressive,  $p<0.05$ ), whereas the uni and multivariate analyses did not confirm any influence of surgical route on DFS ( $p>0.05$ ). These data confirm that LPS and RS are similar in terms of survival outcomes in EC staging.

### **Conclusions**

In our large retrospective analysis, we confirmed that RS and LPS have similar efficacy and safety for endometrial cancer staging, also stratified according to the new molecular classification. Further molecular studies and longer follow-up are needed to assess the role of surgical route in the MMRp\ER population, which represents the molecular class of EC without a clear molecular signature and mostly with unexpected clinical behaviour.

**ABST-0744 -**

**Fibroids I Tailoring Treatment: Personalizing the Best Approach for Fibroids**

**Evaluation of the clinical- & cost-effectiveness of transcervical ultrasound-guided radiofrequency ablation of leiomyomas (ESONATA): a prospective comparative cohort study.**

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**Background**

Intrauterine ultrasound-guided radiofrequency ablation with the Sonata® System is a minimally invasive, incisionless, uterine-conserving treatment for intramural uterine fibroids. Insurance companies in the Netherlands do not include the Sonata system as a covered treatment option as comparative and cost-effectiveness studies are lacking. This study aimed to evaluate the clinical and cost-effectiveness of the Sonata system compared to laparoscopic hysterectomy and laparoscopic or laparotomic myomectomy (usual care).

**Methods**

A single-centre prospective comparative cohort study of 96 participants was conducted between June 2020 and January 2024, with an 18-months follow-up. Eligible participants were allocated based on patient preference to one of three treatment arms: transcervical radiofrequency ablation with the Sonata system, laparoscopic hysterectomy, or laparoscopic and laparotomic myomectomy. The primary outcome was return to work (RTW) in days. Secondary endpoints included symptom severity score (SSS), health-related quality of life (HRQoL), reintervention rate, complications, satisfaction and recommendation. Costs were assessed from healthcare and societal perspectives. The primary outcome for the economic evaluation was quality of life, with resource use and costs as secondary outcomes.

**Results**

Median time to return to work after Sonata treatment was 3.0 days (IQR 1.2-4.8), compared to 47.0 days (IQR 42.3-51.7) for myomectomy and 45.0 days (IQR 36.5-53.5) for hysterectomy ( $p=0.00$ ). Univariate cox regression analysis showed that preoperative fibroid-related medication use was associated with longer time to RTW (HR 0.41, 95%CI 0.24-0.68). However, smaller fibroid size was associated with shorter time to RWT (HR 2.12, 95%CI 1.29-3.50). At 12 months follow-up, SSS decreased significantly ( $p=0.00$ ) by 22.2, 24.9, and 47.2 points, respectively. Correspondingly, HRQoL increased significantly ( $p=0.00$ ) by 31.1, 29.6, and 48.0 points. Surgical re-intervention rates at 18 months were 48.5% for Sonata and 6.3% for myomectomy. Overall satisfaction rates were slightly higher in the myomectomy and hysterectomy groups, 96% and 97%, respectively, compared to the Sonata group: 85%. Finally, there were no complications in the Sonata group.

The data of the economic evaluation are currently being analysed, we aim to present the results at the conference.



## **Conclusions**

Sonata treatment is associated with a shorter time to RTW, compared to myomectomy and hysterectomy. Furthermore, SSS and HRQoL significantly improve after all three treatments. Despite a higher rate of surgical reintervention, Sonata maintains high levels of satisfaction and recommendation among patients.

**ABST-0013 -**

## **Revolutionizing gynaecological care: the impact of Artificial Intelligence**

### **Computer-Aided Diagnosis by Tissue Image Analysis (CATIA) as an Optical Biopsy in Hysteroscopy**

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#### **Background**

Computer-assisted tissue image analysis (CATIA) enables an optical biopsy of human tissue during minimally invasive surgery and endoscopy. Thus far, it has been implemented in gastrointestinal, endometrial, and dermatologic examinations that use computational analysis and image texture feature systems. We review and evaluate the impact of in vivo optical biopsies, performed by tissue image analysis on the surgeon's diagnostic ability and sampling precision and investigate how operation complications could be minimized. Our experience with CATIA in gynaecology shows that significant information can be extracted and be used to distinguish normal from abnormal endometrium.

#### **Methods**

The efficacy of texture analysis in the endometrium image during hysteroscopy was examined in 40 women, where 209 normal and 209 abnormal regions of interest (ROIs) were extracted. We further evaluated 52 hysteroscopic images of 258 normal and 258 abnormal endometrium Regions Of Interest (ROI), and tissue diagnosis was verified by histopathology after biopsy.

#### **Results**

CATIA enabled the evaluation and differentiation between the benign and malignant endometrium during diagnostic hysteroscopy. There was a significant difference between normal and abnormal endometrium for the statistical features (SF) features mean, variance, median, energy and entropy; for the spatial grey-level difference matrix (SGLDM) features contrast, correlation, variance, homogeneity and entropy; and for the gray-level difference statistics (GLDS) features homogeneity, contrast, energy, entropy and mean. The YCrCb colour system with SF, SGLDM and GLDS colour texture features based on support vector machine (SVM) modelling correctly classified 81% of the cases with a sensitivity and a specificity of 78% and 81%, respectively, for normal and hyperplastic endometrium.

#### **Conclusions**

New technical and computational advances can improve optical biopsy accuracy and assist in the precision of lesion excision during hysteroscopy. The exchange of knowledge, collaboration, identification of tasks and CATIA method selection strategy will further improve computer-aided diagnosis implementation in the daily practice of hysteroscopy.

**ABST-0041 -**

**Winners Session: Innovations I Exploring Novel Approaches in Minimal Invasive Surgery**

### **laparoscopic emergency cervicoisthmic cerclage in pregnancy**

*Andreas Kavallaris<sup>1</sup>, Stergios Kopatsaris<sup>2</sup>, Antonis Gkoutzioulis<sup>1</sup>, Panagiotis Papandreou<sup>1</sup>, Sofia Papadimitriou<sup>3</sup>, Dimitris Zygouris<sup>1</sup>*

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*<sup>3</sup>University Hospital of Ioannina, Blood Bank and Transfusion Center, Ioannina, Greece*

#### **Background**

The aim of this study was to evaluate the feasibility and safety of Laparoscopic emergency cervicoisthmic cerclage in second trimester of pregnancy. In this video we present our technique, laparoscopic intraabdominal placement of a 5 mm mersilen Polyester, non –absorbable white tape with a double-armed curved needle 40 cm in length (MERSILEN, ETHICON, Somerville, NJ).

#### **Methods**

Between March 2015 and November 2023 21 patients underwent Laparoscopic emergency cervicoisthmic cerclage. All women had showed cervical insufficiency with dilation in the second trimester. 8 patients had in the past extensive conisation (5 patients) and re-conisation (3 patients). In 4 patients transvaginal cerclage failed due to a short vaginal cervix. Patients' characteristics were obtained from hospital's medical record, and we evaluated surgical data, intra, postoperative complications, and perinatal outcome. All operations were performed by the same surgeon.

#### **Results**

The average operation time was 61 min (ranging from 32 to 95 minutes), the average estimated blood loss during the procedure was less than 100 mL and there were no perioperative or postoperative complications. The mean gestational age at surgery was 14.4 (ranging from 14.2 to 16) weeks. All women underwent an elective CS after 38 weeks of gestation. The overall pregnancy survival rate was 100 %, the mean gestational age at delivery was 38.1 weeks (ranging from 38.0 to 39.1 weeks) and the mean birth weight was 3190 g (g) (ranging from 2980 g to 3350 g).

#### **Conclusions**

Laparoscopic cervicoisthmic cerclage might be an alternative approach even in the early second trimester of pregnancy. Our study's success rates compare favourably to the laparotomy approach and the laparoscopic cervicoisthmic cerclage showed a relatively high success rate in women who are at risk of poor obstetric outcomes. Of course, the surgeon's experience and competence play a key role, and this approach should only be attempted in well-organized units.

<https://player.vimeo.com/video/936322173?autoplay=1>

**ABST-0128 -**

**Robotics I Precision and Progress: Exploring Robotics in Gynaecological Surgery**

**Minimally invasive approaches for reducing the morbidity of para-aortic dissection**

*Masaaki Andou<sup>1</sup>, Yoshihumi Ochi<sup>1</sup>, Mari Sawada<sup>1</sup>, Tsutomu Hoshba<sup>1</sup>, Kiyoshi Kanno<sup>1</sup>, Shiori Yanai<sup>1</sup>*

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### **Background**

To show techniques for reducing patient morbidity in para-aortic dissection. We will introduce three types of minimally invasive paraaortic lymphadenectomy. The progression of techniques using surgical robots to maximize minimally invasiveness will be described, specifically focusing on how to do it in real surgical circumstances.

### **Methods**

The techniques shown have developed from experience with laparoscopic and robotic para-aortic dissection. We began laparoscopic para-aortic lymphadenectomy in 1998, the same surgery using the DaVinci Xi in 2018., and the SP system was introduced for the same surgery in 2023. In total, we have performed more than 900 para-aortic lymphadenectomy surgeries. All patients gave their consent for their surgical footage and data to be used for research and educational purposes.

### **Results**

No patients underwent blood transfusion, and the post-operative courses of all patients were uneventful. Patients could ambulate and take a regular diet the day after surgery.

### **Conclusions**

Robotic surgery for para-aortic lymphadenectomy is feasible and makes this once invasive surgery patient-friendly. Both laparoscopy and robotics offer safe dissection and a good cosmetic result for patients.

<https://player.vimeo.com/video/945406294?autoplay=1>

**ABST-0509 -**

**Neuropelveology I Mastering the Maze of Nerves in Pelvic Surgery: A New Frontier in Gynaecology**

**Laparoscopic Excision of Pudendal Nerve Schwannoma and Pudendal Nerve Detrapment**

*Maria Gabriela Baumgarten Kuster Uyeda<sup>1</sup>, Lacey Brennan<sup>2</sup>, Augusta Morgado Ribeiro<sup>1</sup>, Gustavo Leme Fernandes<sup>1</sup>, Nucelio Lemos<sup>2</sup>*

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<sup>2</sup>University of Toronto, Obstetrics and Gynecology, Toronto, Canada

**Background**

Female patient, 56 years old, with pain in the deep right gluteal muscle and posterior thigh, besides an itching or tickling sensation and a shock like sensation to the right labia majora in addition to urinary urgency. Physical exam revealed a palpable mass in the pudendal nerve territory and allodynia in the pudendal nerve dermatome. MRI showed There is a well-defined 2.9 x 2.7 x 4.3 cm ellipsoid, lobulated mass in the lateral aspect of the right ischiorectal fossa, immediately medial to the right ischial tuberosity, located along the expected course of the pudendal nerve within Alcock's canal. The mass indents the inferior aspect of the obturator internus muscle.

**Methods**

Patient under general anaesthesia, placed in semi-gynaecologic position, with arms alongside the body and legs abducted in adjustable stirrups. One laparoscopic 10mm portal was positioned in the umbilicus and three other 5mm portals positioned: 5cm superior to the pubic symphyses, and the other two on the right and left flanks. Laparoscopic excision of Pudendal Nerve Schwannoma and Pudendal Nerve Detrapment.

**Results**

The surgery lasted 2h48min, with minimal blood loss. The patient had good postoperative evolution, was discharged in stable condition on post operative day 1 with minimal pain and complete anaesthesia of the labia majora and perianal area. But at 6 months post-op, she reported no pain, hypoaesthesia of the labia majora and perianal area, and no urinary complaints

**Conclusions**

In this case, we observed the advantage of laparoscopic surgery which provides minimally invasive access to the pudendal nerve, with optimal visualization, which makes it the ideal route for intrapelvic nerve sheath tumours.

<https://player.vimeo.com/video/949319769?autoplay=1>

# FREE COMMUNICATIONS

**ABST-0544 -**

**Free Communication**

## **Diagnosis and Laparoscopic Excision of an Accessory Cavitated Uterine Malformation (ACUM)**

*Andrew Kent<sup>1</sup>, Mohammed Al Kharfan<sup>1</sup>, Ben Haagsma<sup>2</sup>, Fuad Hussain<sup>3</sup>*

<sup>1</sup>MATTU, Gynaecology, Guildford, United Kingdom

<sup>2</sup>RSCH, Histopathology, Guildford, United Kingdom

<sup>3</sup>RSCH, Radiology, Guildford, United Kingdom

### **Background**

ACUMs are rare uterine anomalies in the form of cavitated lesions found in the myometrium. They are thought to originate from remnants of the Mullerian duct system. They can cause severe dysmenorrhea and acute on chronic pelvic pain. Also known as juvenile cystic adenomyoma, isolated cystic adenomyoma, accessory uterine cavity and uterine like mass, they were first described in 1912. They are usually diagnosed in young women.

### **Methods**

Diagnosis is usually by ultrasound or phased array MRI. Differential diagnoses include endometriosis (in terms of symptoms), rudimentary uterine horn, fibroid with haemorrhagic degeneration and uterine endometrioma or cystic adenomyosis. They can be difficult to identify on laparoscopy. Excision is usually recommended to resolve symptoms and remove the risk of malignant transformation. Treatment should include complete surgical excision, but alcohol sclerotherapy and/or ablation have also been suggested.

Histologically ACUMs resemble a rudimentary uterine horn or small uterus with a central cavity lined by endometrium with glands and stroma surrounded by myometrial tissue containing well-ordered smooth muscle fibres.

### **Results**

We will describe developmental origin, the diagnosis and laparoscopic excision of an Accessory Cavitated Uterine Malformation with subsequent uterine reconstruction using an intracorporeal suturing technique (essentially an instrument tie with long sticks). The characteristic histological appearances of ACUM will be demonstrated.

### **Conclusions**

ACUMs are rare developmental uterine malformations usually diagnosed in young women. Once considered they are relatively easy to identify on imaging. Definitive treatment is by laparoscopic excision with uterine reconstruction.

**ABST-0522 -  
Free Communication**

**Laparoscopic Ovarian Transposition**

*Gülşen Doğan Durdağ<sup>1</sup>, Şirin Aydın<sup>1</sup>, Sonay Öztaş<sup>1</sup>, Hakan Kızılet<sup>1</sup>, Hüsnü Çelik<sup>1</sup>*  
*<sup>1</sup>Başkent University Adana Dr Turgut Noyan Application and Research Center,  
Gynecology and Obstetrics, Adana, Turkey*

**Background**

Ovarian transposition is a surgical procedure which involves placing the ovaries outside the radiation field before radiotherapy in order to preserve fertility and prevent early menopause in women who will receive radiotherapy to the pelvic or lower abdominal region during their reproductive age. It may be performed by open or minimally invasive surgery.

**Methods**

In this video, laparoscopic ovarian transposition performed at a 25-year-old-patient diagnosed with squamous cell cervical cancer is presented.

**Results**

After abdominal exploration, the lateral peritoneum was opened along the ovarian vessels. Ovarian ligaments were cut. The peritoneum between the ovarian vessels and ureters was cut. Cecum was freed. To enable mobilization of the ovaries, the peritoneum was opened along the infundibulopelvic ligament up to the paracolic space. By preserving the angle of the ovarian vessels, the ovaries were moved to the paracolic area and were fixed to the peritoneum. Clipses were placed to the inferior part of the ovaries, in order to facilitate their location during radiotherapy.

**Conclusions**

Ovarian transposition is a relatively rare surgery. Cancer patients should be informed about fertility preserving methods, and ovarian transposition should be recommended to appropriate cases, taking into account the patient's age, cancer type and urgency of treatment.

<https://player.vimeo.com/video/950519168?autoplay=1>

**An unusual complication of Caesarean Section: uterovesical pouch abscess**

*Guldzhan Vorona<sup>1</sup>, Ertan Saridogan<sup>1</sup>*

*<sup>1</sup>UCLH, Minimal Access Gynaecological Surgery, London, United Kingdom*

**Background**

Caesarean section accounts for a significant proportion of all births globally. Whilst it is generally considered safe, intraoperative, and short and long-term postoperative complications are well known. Caesarean section scar defect or niche has attracted much attention in recent years due to its high prevalence, symptomatology and innovative treatment options. There are, however, less common side complications following caesarean. In this video presentation, we describe a case of uterovesical abscess secondary to foreign body reaction.

**Methods**

Case Summary: A 40-year-old woman was referred for a second opinion with persistent suprapubic pain and urinary symptoms nine months post-caesarean section. Ultrasound imaging revealed a 5 cm haematoma within an isthmocele. An MRI was arranged, showing a 4.9 cm thick-walled mass directly anterior to the lower segment myometrium and abutting the bladder. The contents were suggestive of a haematoma. At laparoscopy, this mass contained purulent material, which was drained, and the abscess capsule was excised entirely. Retrograde installation of Methyl Blue dye confirmed the bladder integrity. Hysteroscopy showed a small, left-sided scar defect which was not connected to the abscess.

**Results**

Microbiology results were negative, and histological examination showed a 'foreign body reaction'.

**Conclusions**

This case describes an unusual complication of caesarean delivery. It is quite possible that the collection in the uterovesical area was due to an excessive reaction to the suture material used or, more likely, due to haemostatic material such as oxidised regenerated cellulose, which may have been used to control bleeding during the original operation. It is worth emphasising that when haemostatic materials are used during surgery, following the manufacturer's instructions, and removing them, post-haemostasis is essential.

<https://player.vimeo.com/video/950046749?autoplay=1>



**ABST-0510 -  
Free Communication**

**Laparoscopic resection of an occult rudimentary uterine horn with preservation of the homolateral uterine artery**

*Sara Engels<sup>1</sup>, Ilaria Ruggiano<sup>1</sup>, Evy Gillet<sup>1</sup>, Stavros Karampelas<sup>1</sup>*

*<sup>1</sup>CHU Brugmann, Gynecology, Laeken, Belgium*

**Background**

We present a case report of a 24-year-old, nulligest patient. She attended the gynaecological visit and complained of primary dysmenorrhea. She was not taking any combined oral contraception. By vaginal ultrasound, a normal uterus with para-uterine mass was diagnosed. A complimentary MRI scan confirmed the presence of a non-communicating uterine horn beside a normal shaped uterus.

**Methods**

A laparoscopic resection and diagnostic hysteroscopy were scheduled, and the patient was informed about the risk of bleeding. The hysteroscopy revealed no uterine malformation. The laparoscopy revealed bilateral normal adnexa and a normal shaped uterus. Only after suspension of the left adnex, a little bulging could be seen lateral to the uterus. We proceeded to open the parametrium using mono- and bipolar energy, exposing the rudimentary, non-communicating horn. The left uterine branch was individualised and preserved, coagulating only the section that nourished the uterine horn. We proceeded by dissection of the horn in its integrity. When the mass was completely removed, we performed hemostatic sutures on the myometrium and the parametrium in its anterior and posterior portion was closed by a continuous, non-locking suture.

**Results**

The patient was discharged 24 hours after surgery. The postoperative period was uneventful.

The histological report confirmed the diagnosis of a non-communicating horn with active endometrium.

**Conclusions**

Most patients with accessory rudimentary horn present in their reproductive period with pelvic pain, dysmenorrhea, or dyspareunia. MRI is currently the gold standard for diagnostic imaging; however, 3D ultrasound is also a valuable tool. The treatment for non-communicating rudimentary uterine horns is resection—with the goals being resolution of pain symptoms and the optimization of fertility. There are limited data on the future fertility in patients who have undergone excision of the rudimentary horn.

<https://player.vimeo.com/video/949809439?autoplay=1>

**ABST-0470 -  
Free Communication**

**Nerve-sparing surgery for deep infiltrating endometriosis with low anterior resection**

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<sup>3</sup>*Amerikan Hospital, Obstetrics and Gynecology, Istanbul, Turkey*

**Background**

The aim of this video is to present nerve-sparing surgery for deep infiltrating endometriosis with low anterior resection.

**Methods**

A 40-year-old woman was referred to our clinic with a diagnosis of myoma uteri and deep infiltrating endometriosis. She has distal vaginal and anal pain, especially during menstruation. The magnetic resonance imaging showed multiple uterine myomas and a 3 cm infiltrating endometriotic nodule on the rectosigmoid colon. The patients underwent laparoscopic nerve-sparing surgery for deep infiltrating endometriosis with low anterior resection. The final pathology report revealed endometriosis in the rectosigmoid colon (involving muscularis propria and serosa), endometriotic nodule on the sacrouterine ligament, and sigmoid colon.

**Results**

Nerve-sparing low anterior resection, colorectal anastomosis, and endometriotic lesion excision were performed as part of deep infiltrating endometriosis surgery. She was discharged without any grade 3 or 4 adverse event in the postoperative period.

**Conclusions**

Laparoscopic nerve-sparing surgery for deep infiltrating endometriosis is feasible in selected cases.

<https://player.vimeo.com/video/945966805?autoplay=1>

**ABST-0460 -  
Free Communication**

**Successful multidisciplinary management of deep endometriosis of the rectum, parametrium and right ureter**

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*<sup>3</sup>Ain Shams University, Urology, Cairo, Egypt*

**Background**

To demonstrate the successful management of a case of deep endometriosis involving the rectum, vagina, right parametrium and right ureter.

**Methods**

Accurate preoperative expert MRI imaging revealed a large sub occlusive 4cm rectal nodule and right parametrial deep endometriosis encasing the distal right ureter with right hydronephrosis. Following a multidisciplinary discussion and fully informed consent, a laparoscopy was planned to undertake radical laparoscopic excision of deep endometriosis, ureterolysis, segmental bowel resection with the possibility of right ureter reimplantation. Dissection started with the stepwise approach of mobilisation of the sigmoid, exposure of the ureters. The distal right ureter was seen entering dense right parametrial endometriosis. A deep endometriotic nodule was seen attaching the rectum to the right uterosacral ligament and parametrium. Double j ureteric stents were inserted. further dissection of the distal right ureter was not possible and therefore a decision for right ureteric reimplantation was taken by the multidisciplinary team. The distal right ureter was cut and the parametrial nodule was excised. The vaginal part of the nodule was excised. the segmental bowel resection was completed uneventfully. The final stage of the procedure involved the extravesical lich gregoir ureter reimplantation into the bladder.

**Results**

The lady had an uneventful recovery and was allowed home on the 4th postoperative day and had the jj stent removed 8 weeks later.

**Conclusions**

Deep infiltrating endometriosis simultaneously involving the rectum and ureter is a severe form of deep endometriosis with potentially high risk of intraoperative complications. Successful management is possible when adequate planning and appropriate surgical skills are provided by an experienced multidisciplinary team.

<https://player.vimeo.com/video/945960200?autoplay=1>

**ABST-0348 -  
Free Communication**

**Pushing the limits: Robotic assisted Niche repair in the second trimester**

*Asha Bhalwal<sup>1</sup>, Alvaro Montealegre<sup>1</sup>, Aya Mohr-Sasson<sup>1</sup>, Eleazar Soto<sup>1</sup>, Edger Hernandez<sup>1</sup>*  
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Department of Obstetrics- Gynecology & Reproductive Sciences, Houston, USA*

**Background**

Uterine scar defect (niche) is a complication of caesarean delivery associated with substantial morbidity including obstetrical and gynaecological. Repair is usually recommended for symptomatic patients only. For women seeking future fertility, with large uterine scar dehiscence, a preventive repair is recommended to reduce the risk of rupture, however, this is a matter of controversy.

**Methods**

The video presents a 37-year-old women, usually healthy, with a history of two deliveries of them one by caesarean section. While presenting for second trimester anatomy scan, a substantial dehiscence of the caesarean uterine scar was observed. The patient was sent to high-risk pregnancy unit for additional evaluation that confirmed the diagnosis. The patient was consulted for the alternative treatment approaches including observation or surgical uterine scar repair. After presenting the risks and the potential benefits of each approach, and discussing the limited data known in the literature for surgical repair, the patient decided to continue with surgical management. Robotic assisted uterine scar repair was performed. The following video demonstrates the surgical technique.

**Results**

The patient was followed up by the high-risk pregnancy unit on a weekly base for symptoms assessment and ultrasound evaluation. Although no maternal or foetal indication for early delivery was noted, the patient was delivered by caesarean section at 35+0 gestational age, as no recommendation exist on continuation of pregnancy following caesarean scar repair.

**Conclusions**

Surgical approach is a feasible option for the repair of a substantial uterine scar defect during the second trimester of pregnancy.

<https://player.vimeo.com/video/945909046?autoplay=1>

**ABST-0307 -  
Free Communication**

**Ultra-low impact laparoscopy: a new concept for a minimally invasive surgery**

*Michela Dell'Aquila<sup>1</sup>, Mario Ascione<sup>1</sup>, Federica Cinque<sup>1</sup>, Luigi Della Corte<sup>2</sup>, Giuseppe Bifulco<sup>1</sup>, Pierluigi Giampaolino<sup>1</sup>*

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**Background**

Minimally invasive surgery is considered the gold standard for the treatment of gynaecological diseases. nowadays, mini-invasive surgery includes different approaches such as robot-assisted surgery, single-port laparoscopy, low impact laparoscopy and the more recent laparoscopy under regional anaesthesia; the combination of these innovations led to minimize the hospitalization of the patients and to promote the outpatient management over the inpatient management. our study aims to assess the feasibility and the effectiveness of the new concept of ultra-low impact laparoscopy consisting in the combination of low impact laparoscopy with regional anaesthesia in order to evaluate the perioperative outcomes.

**Methods**

A prospective cohort study was performed from May 2023 to December 2023, to enrol twenty-six patients affected by benign gynaecological disease and threatened by mini-invasive surgical approach. the surgical procedures were performed following the low impact laparoscopy protocol and the regional anaesthesia protocol. the postoperative pain, nausea and vomiting and the antiemetic/analgesic intake were evaluated. postoperative surgical and anaesthesiologic variables were analysed.

**Results**

Duration of surgery was within 60 minutes for 19/26, 73% of patients and no conversion to laparotomy or general anaesthesia was required. according to vas score, the postoperative pain during the whole observation time was less than 3 (median). a faster resumption of bowel motility ( $\leq 8$  h) and patient's mobilization ( $\leq 4$  h) were observed as well as a low incidence of post-operative nausea and vomiting. early discharge and patient's approval were recorded. Intraoperatively pain score was assessed on Likert scale during all stages. all patients showed a pain score of 1 during the introduction of uterine manipulator, Veress needle and trocars. some of them reported a pain score of 2 during the induction of pneumoperitoneum, manipulation of organs and surgical procedure. the patient satisfaction was analysed by asking them if they would do the same anaesthesia again together with the same 3.5 mm mini laparoscopy: the totality of patients agreed with both surgical and anaesthetic protocol

**Conclusions**

Ultra-low impact laparoscopy showed to provide a satisfying recovery experience for patients in terms of short hospital stays, cosmetic result and pain relief, without compromising surgical outcomes. the encouraging results lead us to recruit a greater number of patients in order to validate our technique as a future well-established produce.

**Perceived effectiveness of endometriosis therapies on fatigue from an international survey**

*Christine Bekos<sup>1</sup>, Kevin Kuan<sup>2</sup>, Florian Heinzl<sup>1</sup>, Lucy Whitaker<sup>3</sup>, Andrew Horne<sup>3</sup>, Jana Heine<sup>1</sup>*

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**Background**

Fatigue affects the majority of people with endometriosis with debilitating effects on daily activities and quality of life. However, current literature often focuses on pain management rather than fatigue. This study aims to better understand the perceived effectiveness of current endometriosis treatments on fatigue.

**Methods**

An anonymous, international cross-sectional survey was disseminated through social media in 2023. The survey included the validated Brief Fatigue Inventory and questions related to demographic information. Changes in fatigue symptoms from various endometriosis treatments over the past five years were measured using the Patient's Global Impression of Change scale.

**Results**

There were 5,241 people who accessed the survey, and 2,907 respondents included in the analysis. Over 12 countries were represented. Endometriosis was diagnosed surgically in 71%, by imaging in 17%, and based on clinical symptoms in 12%. Fatigue was found to be mild in 12%, moderate in 78%, and severe in 10%. Fatigue was much worse during menstruation and minimally worsened during ovulation. Following spontaneous/surgical-induced menopause, patients reported no change in symptoms.

The median response for all analgesia and hormonal treatments was "no change" in fatigue except for GnRH-analogues which "minimally worsened" symptoms. Only laparoscopic excision/ablation and changes in rest patterns had a median response of "minimally improved" fatigue.

**Conclusions**

This study demonstrates that most endometriosis treatment modalities available seem to be ineffective in managing fatigue. Current literature on how current therapies influence fatigue is scarce and further research is needed. Personalised management cannot simply be pain-focused and should consider the holistic needs of the patient.

**ABST-0161 -  
Free Communication**

**Laparoscopic approach to bladder involvement of deep pelvic endometriosis: a single centre experience.**

*Flávia Ribeiro<sup>1</sup>, Tânia Barros<sup>1</sup>, Joana Farhat<sup>1</sup>, Mariana Salgado Simões<sup>1</sup>, Hélder Ferreira<sup>1</sup>*  
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**Background**

Urinary tract endometriosis accounts for 1% of all endometriotic lesions and the bladder is affected in 80%. The endometriotic lesions infiltrate the detrusor muscle and can be either partial or full in thickness. This surgical approach requires an experienced team with expert-level laparoscopic skills. Surgical procedures include laparoscopic shaving of serosa/muscular lesions and full thickness resection of deeply infiltrating lesions. We aim to report a tertiary Portuguese hospital experience with laparoscopic approach to bladder endometriosis (BE).

**Methods**

We performed a retrospective single-centre cohort study which included all laparoscopies performed for bladder deep pelvic endometriosis, from January 2012 to April 2024. Clinical presentation and operatory surgical data were reviewed.

**Results**

Thirty-one patients submitted to laparoscopic surgery for suspected BE were included. The mean age was  $35.7 \pm 5.4$  years and the mean body mass index was  $23.5 \pm 4.6 \text{ kg/m}^2$ . The majority were nulliparous (77.4%) and 32.3% had known infertility history. Approximately, 90.3% reported dysmenorrhea (Pain Rating Scale (PRS)  $8.9/10 \pm 1.3$ ), 80.6% reported dysuria (PSR  $7.0/10 \pm 2.8$ ), 58.1% reported dyspareunia (PSR  $6.1/10 \pm 2.2$ ) and 41.9% reported dyschezia (PSR  $7.1/10 \pm 2.4$ ). Partial cystectomy was performed in 61.3% patients. No conversions to laparotomy were needed. The lesions corresponded to endometriosis in 93.5%. The mean hospital stay was, on average,  $7.6 \pm 4.0$  days and significant clinical improvement was reported in dysuria, haematuria and dysmenorrhea.

**Conclusions**

Despite being a rare disease, BE was successfully managed with laparoscopic surgery, with considerable improvement of symptoms.

**ABST-0111 -  
Free Communication**

**Management of ureteral injury complicated with upper vaginectomy for a CIN3 patient**

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**Background**

To describe the laparoscopic management of ureteral injury during TLH.

**Methods**

In the case of TLH for CIN3, we want to cut the vaginal wall with a surgical margin from the cervix of the uterus as possible. Because several reports showed that vaginal intraepithelial neoplasma(VAIN) would occur 1-3% of the patients of CIN3. We will show 2 cases of the partial vaginectomy during TLH, who both are suffering from CIN3. The first case, we cut her anterior vaginal wall after hysterectomy, but the ureteral injury occurred. We must repair them by ureterovesical-neo anastomosis. Then in the second case, we separated the ureter enough before cutting vaginal wall, and ureteral injury did not occur.

**Results**

After the surgery, the patients showed no sign of urinary tract injuries, and the CRP did not increase. The patients' recovery courses were uneventful. The patients featured in this video presentation gave their consents for their operative footages and patients' data to be used for research and educational purposes.

**Conclusions**

For a safe and complete excision of the vaginal wall, finding ureter with an anatomical knowledge thought to be very important. Moreover, it thought to be better to know how to repair injury.

<https://player.vimeo.com/video/945159861?autoplay=1>



**Laparoscopic Suspension of Sigmoid Neovagina Prolapse in Patient with Mayer Rokitansky Küster Hauser Syndrome: Combination of Uncu and Ozerkan Modifications**

*Kemal Ozerkan<sup>1</sup>, Kiper Aslan<sup>1</sup>, Berke Mustafa Oral<sup>1</sup>, Gurkan Uncu<sup>1</sup>*

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**Background**

Our aim is to present a technique of laparoscopic suspension of sigmoid neovagina prolapse in a patient with Mayer Rokitansky Kuster Hauser Syndrome (MRKH). We would like to demonstrate a video of the laparoscopic suspension of a sigmoid neovagina prolapse.

Pelvic organs prolapse of a neovagina is a challenging medical condition in MRKH patients. The main reason for the neovagina prolapse is the operation technique of the neovagina and the lack of the supporting pelvic floor structures [1]. While the peritoneal creation of a neovagina supplies more apical support, sigmoid colon neovagina may not supply enough support. The reported incidence of sigmoid neovagina prolapse is about 8.1%, but the overall neovagina prolapse rate is 2.3% [2-3].

**Methods**

We report a case of 31-year-old woman with MRKH syndrome who underwent a neovagina operation by using sigmoid autograft with midline laparotomy in 2009. She was admitted to our centre with a complaint of stage 4 neovagina pelvic organ prolapse. After a detailed evaluation of the patient, we performed a laparoscopic suspension operation with a new technique with the combination of Uncu and Ozerkan modifications which published before. Our operation involves the steps which are detailed below.

- 1- Situs: Laparoscopic view of the pelvis.
- 2- Isolation of the vaginal dome with the dissection of the peritoneum near the bladder and rectum.
- 3- Double-layer suturing the vaginal dome with Mersilene 5mm tape to the bilateral uterine remnants located in lateral pelvic walls near both ovaries.
- 4- Development of the peritoneum of the bladder by dissection of the Retzius Space.
- 5- Suturing the prepared peritoneum of the bladder over the Mersilene tape to avoid intestinal complications like strangulation.

**Results**

As a result, Ozerkan and Uncu modifications can be utilized in order to suspend the prolapsed vaginal dome to the bilateral uterine remnants. This is a novel and efficient surgical method that can be performed safely in selected neovagina prolapse patients.

**Conclusions**

This new technique including Ozerkan and Uncu modifications can be safe and practical in challenging cases such as sigmoid neovagina prolapse.

<https://player.vimeo.com/video/944549820?autoplay=1>

**ABST-0023 -  
Free Communication**

**Laparoscopic sentinel lymph node mapping in endometrial cancer, the most common areas to find it**

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**Background**

SLN mapping is based on the concept that the lymph drains in a specific pattern, away from the tumour and therefore, if the first lymph node (the SLN), is negative for metastasis, then the nodes after the SLN should also be negative.

**Methods**

Since 2017 we use the sentinel lymph node technique mapped with indocyanine green (ICG) dye for the treatment of endometrial cancer. For the first 40 cases between 02. 2017 until 10.2018 we performed always radical pelvic lymphadenectomy after the SLN mapping to evaluate the method and standardized our technique. However, obtaining sufficient and high surgeons experience (at least 20 cases per year) and standardized technique continues to be essential to preserving diagnostic accuracy. The data of the SLNs location were documented and evaluated.

**Results**

The following years between 11.2018 until 06.2024 we performed in 164 cases (142 endometrioid G1 and G2 and 22 high grades endometrial cancer) ultra-staging SLN mapping, explore the pelvic, the presacral and the paraaortic areas. The overall detection rate (unilateral or bilateral mapping) of SLNs was for the low- and intermediate-risk patients 100%, and 91% for the high-risk patients, in 2 pts (8%) mapping had failed. A total of 492 SLNs (range 1- 4 SLNs) were identified and removed. A total of 162 patients (98.8%) had a successful procedure, in 93%, 151/162 pts bilateral mapping was successful. The most common area to find the SLN, were in the obturator region (73.4%, 119/162 pts), the external iliac region (11.7%, 19/162 pts), the internal iliac region (5.5%, 9/162 pts), the common iliac region (3%, 5/162 pts), presacral region (1.8%, 3/162 pts) and in 4.6% other areas. There were no differences in the SLN location on pelvic sides. In 6 pts (3.7%) positives SLNs were found and pelvic radical lymphonodectomy was performed.

**Conclusions**

SLN mapping in high-grade endometrial cancer demonstrates similar high detection rates and diagnostic accuracy as seen in low-grade endometrial cancers. However, future studies are needed to support this suggestion by resolving potential areas of doubt and debate, especially for high-risk endometrial cancer cases. With the standardization of the technique, we managed to reproduce the high total and bilateral SLN mapping using cervical ICG injection and NIR fluorescence.

### **Hysteroscopic correction of OHVIRA syndrome: Case reports**

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#### **Background**

Obstructed Hemivagina with Ipsilateral Renal Anomaly syndrome (OHVIRA syndrome) presents a urological abnormality whose underlying cause remains unstudied. It results from various scenarios involving the duplication of the uterus and vagina, leading to the closure of one side of the vagina, alongside irregular kidney and ureter formation on the same side. In fact, it encompasses a broad range of urogenital irregularities. The accurate identification of this condition and its correlation with symptoms like pelvic pain, painful menstruation, discomfort during intercourse, infertility, or miscarriages are paramount initial steps for appropriate treatment and the prevention of complications.

#### **Methods**

In the initial case, a 4-year-old girl underwent cystoscopy and vaginoscopy, along with the excision of a pelvic mass. By the age of 13, a follow-up surgery was necessary to remove a vaginal septum due to escalating lower abdominal pain and intermenstrual spotting following the onset of menstruation. In the second instance, a 14-year-old girl presented with recurring lower abdominal pain over three weeks, absence of menstrual bleeding, and a rounded formation in the genital region. Both patients diagnosed with OHVIRA Syndrome underwent surgical interventions to alleviate menstrual blood flow obstruction and hemitomy, followed by vaginoscopy and hysteroscopy. A Minihysteroscope 18.5 Fr, equipped with a coagulating electrode knife D300 140 002, was utilized during the procedure. Bipolar energy was exclusively employed, with uterine cavity pressure maintained at 120 - 150 mm Hg, and a 0.9% sodium chloride solution served as the liquid medium. The diagnosis of both girls obtained was a complete bicorporeal uterus with a cervicovaginal septum and a vaginal fistula (U3C2V2) according to ESHRE/ESGE classification

#### **Results**

Following surgical observation, both patients were discharged in satisfactory condition on the same day. Subsequent menstruation in both cases was pain-free, and routine ultrasound examinations revealed no pathological findings. Based on the results of the operations, the vaginal septum was crossed, the cavities of both vaginas, cervical canals, and uterine cavities were examined. After 30 days, menstruation came without pain. During a routine examination, the patient had no complaints and an ultrasound examination after 3 months and further observation were recommended.

#### **Conclusions**

In recent times, instances of OHVIRA syndrome have become increasingly common, even occurring in prepubertal, prenatal, and neonatal stages. Surgical correction of the defect has been carried out from the onset of menarche, primarily due to improved visibility afforded by a vaginal approach. These cases underscore the necessity for surgical intervention when symptoms specific to this syndrome manifest, reducing the likelihood of fistula formation and menstrual blood outflow

disturbances. Consequently, given potential diagnostic challenges, these cases offer valuable insights for healthcare professionals across different specialties.

<https://player.vimeo.com/video/969623252?autoplay=1>

**ABST-0756 -  
Free Communication**

### **Vulvovaginoplasty for transgender women: a 10-step video**

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#### **Background**

Background: For several years, the transgender community has been growing and more and more transgender women are seeking for a gynaecological follow up. These patients have specific needs, particularly those who had undergone genital feminization surgery. To better take these specific needs into account, the first step is to know what surgical procedure was performed to better understand their anatomy.

#### **Methods**

Methods: The case is a 70-years-old transgender women, who started feminizing hormone therapy 6 years ago. Her medical history is a type 2 diabetes and hypertension under treatments. She already had feminizing surgeries (facial and breast surgeries). She is now asking for a feminizing genital surgery.

#### **Results**

Results: This video present in 10 steps the surgery of penile inversion vulvovaginoplasty with scrotal skin graft.

#### **Conclusions**

Conclusion: With this video, gynaecologists can understand the different steps of a vulvovaginoplasty with scrotal skin graft, which is the most common surgical technique in French centres, to improve the follow-up of transgender women who underwent this surgery.

<https://player.vimeo.com/video/961062075?autoplay=1>

**ABST-0723 -  
Free Communication**

**A European survey on the hysteroscopic approach to intrauterine pathologies on behalf of the European Society for Gynaecological Endoscopy Special Interest Group on Hysteroscopy**

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**Background**

Hysteroscopy is regarded as the gold standard for the treatment of intrauterine pathologies. Despite its widespread acceptance, various diagnostic and therapeutic approaches are employed globally. The aim of this survey is to determine the habits of gynaecologists members of the ESGE to approach intrauterine pathologies and to evaluate the management, the therapeutic strategies and the surgeons' familiarity with the different surgical techniques.

**Methods**

The project was approved by the Executive and Advisory Boards of ESGE, and invitation letters were sent to all members of ESGE to participate in the online questionnaire accessible via Survey Monkey.

**Results**

451 gynaecologists from 58 different countries responded to the survey. Hysteroscopy is performed with vaginoscopy in 74%, with a nurse present in 90% of procedures. Digital hysteroscopic clinics, are available to 44.1% of participants. Informed consent is provided by 91.6% of participants, with 67% also offering an informational leaflet before the procedure. Only 28% perform pregnancy tests before procedures. 22.4% routinely administer antibiotics peri and 16.4% postoperatively. Cervical preparation is offered by 24.8% of respondents. 87.9% of participants consider their hysteroscopic rooms appropriately equipped. The preferred instrument is a 4-5 mm rigid hysteroscope, used in 49% of cases, with 30° optics in 85.4% of cases. Polypectomy is the most common procedure, but 35.6% report performing fewer than 50 polypectomies per year, while 32.8% perform between 50 and 100. 14.2% use hormonal therapy for endometrial preparation. The preferred instruments for polypectomy are a 4-5 mm hysteroscope with 5 Fr instruments, followed by a 26 Fr resectoscope. About 30% of respondents do not use any medication for pain management while about 10% use general anaesthesia. 85.8% of surgeons report treating fewer than 20 cases with isthmocele per year, using primarily a 26 Fr bipolar resectoscope, followed by a 15 Fr miniresectoscope. 64% of surgeons treat fewer than 10 cases of uterine malformations per year, using a 4-5 mm hysteroscope, followed by a 26 Fr bipolar resectoscope and a 15 Fr bipolar miniresectoscope. For Asherman's syndrome, 36.9% of surgeons treat 1 to 2 cases per year, while 87% perform fewer than 5 conservative treatments for endometrial cancer per year. Feedback is collected by 70.3% of participants, and 58.1% have a reporting system for hysteroscopic procedures, although only 48.6% produce an annual report routinely. 16.7% use anti-adhesion gel or coil, and 13.9% use oestrogen post-procedure. For

post-procedure control, 62.5% perform an ultrasound, and 49.6% conduct a hysteroscopic follow-up between one to three months after the primary procedure. Outpatient office hysteroscopy is offered by 54.1%.

### **Conclusions**

This survey highlights the varied practices among ESGE members in the hysteroscopic management of intrauterine pathologies. The findings underscore the importance of standardized guidelines and protocols to optimize patient outcomes and ensure consistency in treatment approaches.

**ABST-0714 -  
Free Communication**

**Obstetrical outcomes after fertility sparing treatment of endometrial cancer and atypical endometrial hyperplasia**

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**Background**

The primary treatment for endometrial cancer (EC) is total hysterectomy, bilateral salpingo-oophorectomy and surgical staging. 4% of women diagnosed with EC are younger than 40 years old. Preserving fertility is important, as the average age of the first pregnancy is often delayed over 30 years.

According to the ESGO/ESHRE/ESGE guidelines for fertility sparing treatment (FST) of EC, the management consists of hysteroscopic resection of the lesion followed by progestin therapy. FST is not to be considered the standard of care, and patients always must undergo strict counselling.

The main outcome of this study is to evaluate the obstetrical outcomes of patients after complete response (CR) to FST of EC and atypical endometrial hyperplasia (AEH).

**Methods**

This is a retrospective, single centre, single surgeon study of all patients who underwent FST of EC or AEH between January 2021 and December 2023 at Fondazione Policlinico Universitario Agostino Gemelli IRCCS of Rome.

Our surgical technique consists in: 1) In case of focal lesion, hysteroscopic resection of the lesion with a 15Fr bipolar miniresectoscope, according to the "three steps" Mazzon technique; 2) In case of AEH, visual D&C as described by Casadio et al. in 2022; 3) In case of diffuse EC, combined technique (Miniresectoscope + Visual D&C), as described by Catena et al. in 2023.

In all cases a 52 mg levonorgestrel-releasing intrauterine device (LNG-IUD) was inserted. In case of G2 EC oral progestin therapy with daily Megestrol Acetate 160 mg was added to the LNG-IUD

The follow up consisted in hysteroscopic guided endometrial biopsies at 3, 6, and 12 months, according to the pregnancy desire of the patient. After CR (two consecutive negative biopsies at 3 and 6 months), patients have been encouraged to conceive.

**Results**

A total of 100 patients have been included in this study: 57 AEH and 43 EC (27 G1, 16 G2). The median age was 35,2 years. The median BMI was 26,05.

97/100 (97%) patients achieved CR with a median time of 7.6 months. 51 of them discontinued progestin therapy in the attempt to conceive: 25 patients with AEH, 18 patients with G1 EC, 8



patients with G2 EC. 21 patients (41%) achieved pregnancy: 9 patients with AEH (36%), 8 patients with G1 (44%), 4 patients with G2 (50%). 13 of them had vaginal or cesarean delivery (62%), while 8 of them are still pregnant.

### **Conclusions**

FST of AEH and EC is a safe method with a high rate of CR and good pregnancy outcomes. This strategy makes it possible to temporarily avoid hysterectomy in young patients letting them reach their reproductive desire in most cases. Prospective studies are needed to better define live birth rate and long-term outcomes.

**ABST-0702 -  
Free Communication**

**Hysteroscopic findings in women with MRI-diagnosed adenomyosis**

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**Background**

Uterine adenomyosis, defined as the presence of endometrial tissue within the myometrium, is a common gynaecologic disorder in women of reproductive age, associated with dysmenorrhea, abnormal uterine bleeding and infertility. Magnetic resonance imaging (MRI) is an accurate non-invasive diagnostic technique for adenomyosis. Hysteroscopy provides direct visualization in uterine cavity of women with adenomyosis and enable the surgeon to collect a histological biopsy under visual control; however, its role in the diagnosis of adenomyosis is not fully established. The aim of this video is to correlate the hysteroscopic findings with the findings of MRI in women with adenomyosis.

**Methods**

This is a retrospective study conducted at the Cantonal Hospital of Schaffhausen between 2011 and 2022. Adenomyosis was diagnosed using MRI. Videos from every hysteroscopic procedure were recorded and retrospectively examined independently by two investigators.

**Results**

27 women were included in our study. Mean age was 35.2 years (SD 4.3 years). 17 patients were nulligravida and 20 patients nullipara. In 5 patients adenomyosis was localized only in the anterior wall, in 9 patients only in the posterior wall alone, and in 13 patients in both the anterior and posterior walls. 7 cases were extrinsic adenomyosis (adenomyosis of the outer myometrium), and 20 intrinsic. Following hysteroscopic characteristics were found: 0% irregular endometrium with tiny openings on the endometrial surface, 70.4% pronounced hypervascularization, 51.9% stromal oedema, 63% endometrial "strawberry" pattern, 25.9% haemorrhagic cystic lesions assuming a dark blue or chocolate brown appearance and 18.5% micro polyps. The only significant association found between hysteroscopic and MRI findings, was the association between stromal oedema and thickness of junctional zone if the adenomyosis was localized in the posterior wall of the uterus.

**Conclusions**

There is a high rate of endometrial changes in women with adenomyosis. In our video we demonstrate the different pattern of hysteroscopic findings according to the localization of adenomyosis.

<https://player.vimeo.com/video/952269372?autoplay=1>

**ABST-0579 -  
Free Communication**

**Laparoscopy and hysteroscopy: An effective solution for cornual ectopic pregnancy**

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**Background**

Intertitial (cornual) pregnancy is a rare variant characterized by the implantation of the fertilized egg in the cornual segment of the uterus. The incidence varies between 1-3% in women, the main risk factor for ectopic pregnancy is disruption of normal tubal anatomy from factor such as infection, surgery, congenital anomalies, or tumors. The main risk factor is tubar surgery o prior ectopic pregnancy. If diagnosed at an early gestational age and prior to rupture, medical or surgical treatment is possible. According to gestational age and findings, a laparoscopic, hysteroscopic, or combined approach has been described as in our case.

**Methods**

The patient is placed in the Liloyd Davies position; with direct entry and applying the Morelia technique, we continue with the placement of secondary trocars in a French disposition. A left cornual ectopic pregnancy is identified and surgical field is prepared with temporary transposition of both ovaries. Then a dissection is carried out in the retroperitoneum to identify the right and left uterine arteries and subsequently a temporary clamping with clips is performed plus application of vasopressin around the ectopic cornual tissue. Hysteroscopy is performed with a resectoscope, where trophoblastic tissue is removed from the left anterolateral aspect. Next, a transverse incisión is made with monopolar energy, dissection is performed, and then the endometrium and myometrium are sutured with vicryl 1, followed by suturing with invagination of the myometrium using barbed suture and the clips are removed. Finally, a hysteroscopy is performed again to check the cavity.

**Results**

To develop an appropriate surgical strategy to prevent the risks of haemorrhage is undoubtedly essential for a safe surgery.

**Conclusions**

The combined use of laparoscopy and hysteroscopy contributes to an adequate surgical outcome, as well as the pharmacological use of vasoconstrictors and the transient ligation of uterine arteries contribute significantly to reducing the risk of bleeding.

<https://player.vimeo.com/video/951327850?autoplay=1>

**ABST-0572 -  
Free Communication**

**Hysteroscopic Resection of Retained Products of Conception (RPOC): Cumulative Results from 2019-2023**

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**Background**

Hysteroscopy is a well-established, minimally invasive, outpatient procedure that allows accurate diagnosis and simultaneous treatment of retained products of conception (RPOC). This approach reduces the need for more invasive procedures such as curettage, which carries a higher risk of complications and a higher rate of incomplete evacuation.

The study aims to describe the success rate and complications of hysteroscopic procedures for RPOC resection at the Hospital de Sant Pau (Barcelona) between 2019-2023. It also analyses variables potentially associated with these outcomes.

**Methods**

This is a prospective descriptive analysis of ambulatory and operative hysteroscopies performed at the Hospital de la Santa Creu i Sant Pau diagnosed with RPOC between 2019 and 2023.

Variables analysed include age, parity, history of vaginal childbirth, type of induced abortion, maximum diameter of RPOC, Gutenberg vascularity, procedural success, difficulty, overall Likert rating, and occurrence of complications.

Mechanical morcellation was performed using the Truclear5C® (Medtronic®) hysteroscope for outpatient procedures, and a 9mm bipolar loop resectoscope was used for operative hysteroscopies. Data were collected prospectively using an anonymized database (Clinapsis®).

**Results**

A total of 77 hysteroscopies were performed for RPOC: 72 outpatient and 5 operative hysteroscopies. The average age was 33.9±6.5 years.

Over the same period, there was a notable 45% overall decrease in curettages and a 55% decrease in curettages for RPOC.

Of the procedures, 30,1% followed voluntary pharmacological abortions, 8,2% followed voluntary surgical abortions, 27,4% followed delayed abortions (19,2% treated pharmacologically and 6,8% by curettage), 4,1% followed second-trimester interruptions, 1,4% followed molar gestations previously treated by curettage, 24,6% followed term vaginal deliveries, and 5,5% followed caesarean sections at term.

The mean maximum RPOC diameter was 18.9 ± 8.8 mm. According to the Gutenberg scale, 28.6% were graded Gutenberg 0, 49.4% Gutenberg 1, 18.2% Gutenberg 2, and 3.9% Gutenberg 3, which were reserved for operative hysteroscopy.

Uterine artery embolization was performed in 2.6% of cases due to intense vascularization on ultrasound.

Patient preference led to 10.4% of procedures being performed under sedation.

Procedural difficulty was mild in 70.1%, moderate in 25.9%, and severe in 3.9% of cases. The operator rated hysteroscopy as satisfactory in 92.2% of cases.

There were 6 complications (7.8%): 4 required a second hysteroscopic session, and 2 involved bleeding complications. Second hysteroscopies were necessary due to poor visualization in 2 cases and patient intolerance in 2 cases.

### **Conclusions**

Hysteroscopy for diagnosing and treating RPOC is a safe procedure with high success rates and low complication rates. The increasing use of hysteroscopy for RPOC at the Hospital de Sant Pau has correlated with a decline in curettage procedures, reflecting a trend toward conservative management. The data align with existing literature, demonstrating success rates exceeding 90% and minimal complications.

**Niche pregnancy complicated by bleeding: A case report.**

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**Background**

Niche pregnancy, one of the rarest types of ectopic pregnancy, is a result of placental implantation on or in the scar of a previous caesarean section. The increasing number of caesarean deliveries cause a parallel increase of Niche pregnancies. Clinical symptomatology varies, although most patients are asymptomatic. Transvaginal ultrasonography remains the milestone in the diagnosis of Niche pregnancy.

**Methods**

We present a case of a 37-year-old woman V. gravida, IV. Para, at 8+6 gestational age, and three caesarean sections in the past obstetric history (the last one performed five years ago) presented to the emergency department of our hospital with vaginal bleeding a few days prior to presentation. Clinical examination showed a closed external os and no vaginal bleeding. Transvaginal ultrasonography revealed a 32mm gestational sack and positive foetal heartbeat in the Niche. Hysteroscopy showed implanted pregnancy in the isthmocele. As a bleeding started a suction curettage was indicated. The pregnancy was mobilized via hysteroscope and removed by suction. A foley catheter was placed for intrauterine compression followed by a laparoscopic compression suturing of the preexisting Niche in order to manage the intraoperative bleeding.

**Results**

Postoperative the patient was discharged in a stable condition and had no abnormal findings in the follow-up visits at our outpatient department.

**Conclusions**

Although Niche pregnancy is a rarity, it is of great importance to confirm the diagnosis at an early stage of the pregnancy in order to avoid life- threatening bleeding events and preserve the fertility of the patient. We performed a compression suture a second time in a similar situation with successful results.

<https://player.vimeo.com/video/951237919?autoplay=1>

**ABST-0536 -  
Free Communication**

**Long-term Outcomes of the Minitouch 3.8 Era Office Endometrial Ablation Procedure**

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**Background**

To evaluate long-term outcomes of the Minitouch Office Procedure for heavy menstrual bleeding.

**Methods**

A prospective, multicenter, single-arm, open label, pivotal clinical trial was conducted at 5 US physician's offices, with follow-up through 36 months.

114 premenopausal women with a history of heavy menstrual bleeding and a Pictorial Blood Loss Assessment (PBLAC) score >150 were treated with the Minitouch Procedure. The demographics were as follows - mean  $\pm$  SD (range): age  $41.8 \pm 4.7$  (30-50) years, C-sections  $0.7 \pm 1.0$  (0-5), sounding depth  $8.6 \pm 0.9$  (7.0-11.0) cm, cavity length  $5.2 \pm 0.8$  (4.0-7.8) cm, and endometrium thickness  $9.5 \pm 4.2$  (3.0-23.4) mm.

All 114 Minitouch Procedures were performed in office setting without endometrial pretreatment or period timing. Cervical dilation and cavity sealing are not required. There is no upper limit to the cavity length that can be treated. Minitouch System has pause/resume and speed adjustment features to optimize patient comfort in real time during the procedure.

**Results**

The discharge time was 21 minutes on average with a median of 13 minutes. Average pain scores (scale 0 – 10) were 0.7 pre-procedure, 2.7 at discharge, and 1.2 at 24 hours post-procedure. The investigators used their own routine office-based pain management protocols. 3 physicians (80 subjects) used oral medications, and no IV line or GA. 1 physician (26 subjects) used oral medications, with an IV line in place for contingencies, while 1 physician (8 subjects) used mobile anaesthesia service.

One investigator routinely performed 10 to 13 procedures in a single session. The short discharge duration ensured a continuous patient flow through the facility, making a staffed recovery facility not necessary.

94% (101/107) of the subjects reported eumenorrhea (normal, light, spotting or no periods), with 59% (63/107) reporting amenorrhea or spotting, at Month 36.

95% (98/103) of the subjects who had dysmenorrhea reported a significant reduction in their dysmenorrhea burden. Their pre-procedure score of 6.6 reduced to 0.8 on average at Month 36. 71% (76/107) reported no period pain at all at Month 36.

94% (100/107) reported no limitations at all due to menstrual periods in work, physical, social or leisure activities at Month 36.

There were no device or procedure-related serious adverse events and no incidences of pregnancy.

### **Conclusions**

The Minitouch 3.8 Era Office Endometrial Ablation procedure is well-suited for physician's office from the perspectives of safety, efficacy, patient comfort, recovery facility, and its incorporation into the office workflow.



**ABST-0481 -  
Free Communication**

**laparoscopic excision of an anterior retroperitoneal cyst: a minimally invasive approach**

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**Background**

Growth of cysts on parietal peritoneum is considered a rare condition. With only case reports identified in the literature, it is difficult to determine their true incidence within our population. Their presentation is vague and depends on the location of the cyst. The aim of presenting this case report, is to highlight the rarity of its presentation and its need for differentiation from other intraperitoneal locations of cysts

**Methods**

This is a case of A 74-year-old woman with no medical history nor abdominal surgery, presenting chronic abdominal pain. Patient was afebrile without signs of peritoneal irritation on physical exam. Abdominal CT scan showed a well delineated hypodense mass of the left iliac fossa. It is anatomically located in the extraperitoneal preperitoneal space in the left iliac fossa. This mass has following dimensions: 7.1 × 5.3 cm. The patient was prepared for surgery. The procedure was a laparoscopic excision of the cyst.

**Results**

The procedure was successfully conducted without perioperative complications, with minimal blood loss less of 50 ml. Subsequently, the postoperative course proceeded uneventfully with Minimal postoperative pain.

**Conclusions**

The laparoscopic approach in retroperitoneal cysts contributed to an early management and minimal resection of adjacent organs. it represents the procedure of choice when amenable and is generally dependent on size, location, involved structures, and the comfort of the operating surgeon.

<https://player.vimeo.com/video/945965834?autoplay=1>

**ABST-0473 -  
Free Communication**

**Embryofetoscopy followed by hysteroscopic evacuation of a first-trimester missed abortion in a woman with septate uterus**

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**Background**

We want to describe the technique of embryo fetoscopy performed with 5Fr instruments with targeted evacuation of the gestational sac followed by a Visual-D&C using the hysteroscopic tissue removal system for the management of first trimester missed abortion in a patient with uterine septum.

**Methods**

Transvaginal pelvic ultrasound revealed a 7-week missed abortion. A 3D-ultrasound confirmed the presence of a partial uterine septum. Operative hysteroscopy under spinal anaesthesia was performed using a vaginoscopic approach. A partial septum was observed, and a dysmorphic gestational sac was visualized in the left hemi-cavity. A small incision was made in the amniotic sac using a 5Fr-bipolar electrode allowing direct visualization of the embryo. Selective biopsies of the embryo and chorionic villi using the hysteroscopic “grasp biopsy” technique was obtained. The residual gestational sac was removed using 6,25mm-tissue retrieval system. No additional cervical dilation was required.

The patient was discharged on the same day of the procedure. No intraoperative bleeding was encountered. The overall operation time was 21 minutes. A post-procedure ultrasound confirmed the presence of an empty cavity. It was determined that further evaluation of the septum was needed before proceeding with hysteroscopic metroplasty.

**Results**

Complete safe evacuation of the uterine cavity under direct visualization.

**Conclusions**

Embryofetoscopy with miniaturized instruments allows the selective targeting of fetal tissues minimizing the risk of maternal contamination of the sample. The visual-D&C using hysteroscopic tissue retrieval systems represents a safe and innovative alternative to blind D&C for the treatment of early pregnancy loss, allowing a complete evacuation of the uterus with minimal endometrial damage minimizing the risk of complications associated to blind procedures such as retained products of conception and uterine perforation. We recommend adopting this effective and safe technique, especially in patients with congenital uterine anomalies, in which performing a blind D&C has a higher risk of complications.

<https://player.vimeo.com/video/945966764?autoplay=1>

**ABST-0404 -  
Free Communication**

**Reproductive outcome after hysteroscopic cytoreductive surgery for adenomyosis in patients with recurrent implantation failure**

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**Background**

Adenomyosis is seen as a possible cause of implantation failure, however no clear guidelines are validated for treatment, and surgery remains highly controversial. The aim of this study is to assess the reproductive outcome of women with recurrent implantation failure after hysteroscopic cytoreductive surgery of adenomyotic lesions of the inner myometrium.

**Methods**

This prospective observational single centre, single observer study included 57 women with recurrent implantation failure, referred to our tertiary centre between June 2022 and December 2023. According to our methodology all patients received a complete assessment of the uterus including advanced ultrasound, hysteroscopy and MRI and were included when diagnosed with focal or diffuse adenomyosis. Pre-operative treatment consisted of GnRH analogues or Dienogest. Hysteroscopic cytoreductive surgery of adenomyotic lesions was performed in an ambulatory setting under conscious sedation with 5fr micro-scissors and bipolar needle (Trophy scope XL) or/and the 15fr mini-bipolar resectoscope. Hyaluronic acid anti-adhesion barrier was applied as a standard procedure and patients had a second-look hysteroscopy 8 weeks post-operatively. For all patients histology confirmed adenomyosis. For reproductive analysis we differentiate the egg donation population and the infertility group with an age less than 38 years.

Primary outcome includes feasibility, safety and post-operative result after resection of adenomyotic nodules and/or cysts. Secondary outcome includes pregnancy results with obstetric outcome, complications and placental disorders.

**Results**

A total of 57 patients underwent hysteroscopic cytoreductive surgery for adenomyosis. In those 57 interventions we did not experience direct complications, and all patients could leave the facility the same day. In 14 patients the resection was incomplete or due to multiple locations the resection was planned in different stages. Until now 46 patients received their control hysteroscopy with very satisfying results and rarely minimal adhesions at the side walls. Nineteen patients have attempted to conceive. From 9 egg donation patients, 8 became pregnant in the subsequent cycle, resulting in 1 miscarriage and 7 evolutive pregnancies. From 10 patients less than 38 years, 9 became pregnant resulting in 2 miscarriages and 7 evolutive pregnancies. Today we recorded 6 deliveries with normal birth weight, no complications, neither placental disorders.

**Conclusions**

This study is according to our knowledge the first prospective observational study to evaluate feasibility and outcome of hysteroscopic resection of adenomyotic tissue in the inner myometrium. Initial data from this study are reassuring and promising, demonstrating that hysteroscopic

cytoreductive surgery is safe with only minor post operative adhesion formation. Reproductive outcome in this study is very favourable with until now uneventful pregnancy evolutions. We will report on the final results and discuss the possible mechanism of this cytoreductive therapy on reproduction.

**ABST-0349 -  
Free Communication**

**Anatomical-Based classification of dorso-lateral parametrectomy for deep endometriosis.  
Correlation with surgical complications and functional outcomes. A single-center prospective study**

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**Background**

Parametrial endometriosis surgery remains a challenge and its standardization, radicality and indications are still unclear. Parametrectomy for deep endometriosis is associated with major complications, such as post-operative pelvic dysfunction due to accidental injury of the ortho- and parasympathetic innervation of the pelvis or due to their intentional removal as a consequence of involvement in parametrial disease.

The aim of our study is to evaluate the complication rate and functional outcomes of nerve-sparing parametrectomy for deep endometriosis in relation to the lateral and caudal extension of the surgical procedure, based on recognizable anatomical landmarks.

**Methods**

This is a prospective single-center study in which all patients who underwent parametrectomy for deep endometriosis between September 2020 and June 2023 at our tertiary center were enrolled. Dorso-lateral parametrectomies were divided into parametrectomies medial to the presacral fascia and cranial to the medial rectal artery (superficial parametrectomy), and parametrectomies in which one of the two landmarks was overcome during the surgical procedure, leading to the excision of tissue lateral to the presacral fascia (deep parametrectomy type 1, or DP1) or caudal to the medial (deep parametrectomy type 2, or DP2). Finally, we used the hypogastric fascia as the last landmark to define type 3 deep parametrectomy (DP3), when the procedure was deeply lateral or caudal to the fascia.

**Results**

Bladder voiding deficit was observed in 9.7% of cases (n=18) with a higher percentage in the DP2 (20.8%) and DP3 (30%) groups. Regarding post-operative gastrointestinal function, our data showed a significant improvement over time in KESS in all parametrectomy groups, with the exception of DP2. In contrast, the other questionnaire used (GIQLI) did not demonstrate a significant improvement after surgery. A clear improvement in post-operative bladder function was only shown in DP3. Despite a generic improvement in dyspareunia, parametrectomy is not associated with a simultaneous improvement in sexual function expressed with FSFI, in any of the four groups.

## **Conclusions**

Our classification proposal constitutes a concrete approach for comparing, in a standardized way, the complications and functional outcomes of parametrectomy, which, even if carried out by expert hands, demonstrates a non-negligible rate of bladder voiding deficit. Moreover, our results indicate that parametrectomy in and of itself is not associated with an improvement in sexual function, but only in dyspareunia.

**ABST-0103 -  
Free Communication**

**SAY Knot: A Novel Sliding Knot Technique without a Knot Pusher**

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**Background**

Difficulties in intracorporeal knot tying can be overcome by extracorporeal slip knots, which make it simple to tie and manage the tension between the approximated tissues with the aid of a knot pusher. However, known extracorporeal knot techniques are difficult to perform due to their recall, dexterity with thin yarns, and need for training. We developed a new laparoscopic extracorporeal slip knot technique that can be used with a conventional needle driver or any clamp like those used in open surgeries, with the advantages of being inexpensive and simple to learn and apply.

**Methods**

Pass the active strand over the other loop and hold the cross with the thumb and index finger of the non-dominant hand. Wind the Kelly clamp around both loops three times in tornado motion. Pass the tip of the instrument over the active loop and under the passive loop and grasp the limb of the active strand with the clamp. Pull on the passive strand to bring the knot close to the tissue being sutured. Tighten and lock the knot with the tension of the passive strand.

**Results**

We used this knot technique in several laparoscopic sacrocolpopexy, colposuspension, pectopexy, myomectomy and hysterectomy procedures to facilitate operations without any complication and difficulty

**Conclusions**

This new technique, which can be formed with the aid of conventional hand instruments and uses a needle holder as a knot pusher or without the need of a knot pusher, is feasible, faster, stronger, and applies more tension than conventional knot methods.

<https://player.vimeo.com/video/944963893?autoplay=1>



**ABST-0785 -  
Free Communication**

**Time to return to normal activity after laparoscopic myomectomy and transcervical radiofrequency ablation - interim analysis of the SUPERIOR RCT**

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**Background**

Fibroid therapy has shown an enormous increase in therapeutic options in recent years. The efficacy of transcervical radiofrequency ablation and laparoscopic myomectomy in terms of symptom reduction has already been demonstrated. However, data directly comparing the two procedures is still lacking.

**Methods**

Unicenter, prospective randomized controlled trial at the University Centre with 1:1 randomization into the two treatment arms: transcervical radiofrequency ablation and laparoscopic myoma enucleation ± hysteroscopic myoma resection. Patients with up to 10 non-pedunculated fibroids and a maximum size of 8 cm who were equally suitable for both types of treatment were included. The interim analysis of the first 60 patients (30 per arm) with the analyzable primary endpoint - return to normal activity - is presented.

**Results**

There are significant differences in the two groups in favor of the transcervical radiofrequency arm in terms of operation duration, time to possible discharge, postoperative pain, return to normal activity and further parameters.

**Conclusions**

Transcervical radiofrequency ablation has proven to be an effective alternative to laparoscopic myomectomy. The greatest advantages of the procedure are the shorter operating time, the shorter hospital stay and the faster return to normal activity.

**ABST-0635 -  
Free Communication**

**Uterine contractility in women with endometriosis vs. normal controls during IVF treatment using ultrasound speckle tracking**

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**Background**

The primary aim of this study was to assess differences in uterine contractility during in vitro fertilization (IVF) treatment between women with endometriosis and women with normal uteri using transvaginal ultrasound (TVUS) speckle tracking. The secondary objective was to assess differences in IVF outcomes between women with endometriosis and women with normal uteri.

**Methods**

This multicentre, prospective, observational study took place in three European centres between 2020 and 2024. Women were included if they were undergoing oocyte retrieval for IVF or intracytoplasmic sperm injection (ICSI) treatment, if they had a diagnosis of endometriosis (study group), or if they had a sonographically normal uterus and male or tubal factor as their IVF indication (control group). Patients underwent TVUS for at least 4 minutes, 30 minutes prior to oocyte retrieval. The following characteristics of uterine contractility were extracted from the TVUS recordings: frequency, amplitude, velocity, coordination and direction. IVF outcomes were categorized into no ongoing pregnancy and ongoing pregnancy in the same IVF cycle.

**Results**

57 women were included, 18 with endometriosis (with or without adenomyosis) and 39 controls. The median frequency of uterine contractions was significantly lower in women with endometriosis than in women with a normal uterus ( $p = 0.027$ ). The ongoing pregnancy rate was significantly lower in the study group than in the control group (14.3% vs. 48.0%,  $p = 0.035$ ). Ovarian stimulation protocol was significantly different between groups ( $p = 0.011$ ). In addition, patient and IVF treatment characteristics were comparable in both groups ( $p > 0.05$ ).

**Conclusions**

The frequency of uterine contractions is lower in women with endometriosis than in women with a normal uterus. This difference may play a role in the lower IVF success rate in women with this condition. More research is needed to investigate the effect of changes in uterine contractility on IVF outcomes.

**ABST-0624 -  
Free Communication**

**Impact of uterine leiomyomas on uterine peristalsis compared to normal controls**

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**Background**

The aim of this study was to assess whether the direction, frequency, amplitude, velocity and coordination of uterine peristalsis differed between women with at least one type 3 or higher-grade leiomyoma (FIGO) and women with healthy uteri.

**Methods**

This three centre comparative observational prospective cohort study (2014-2024), included women 18 years and premenopausal who had either normal uteri or leiomyoma. Exclusion criteria were pregnancy, use of hormonal contraceptive methods, intrauterine devices or other medication affecting uterine peristalsis, significant language barrier or mental disability. All patients underwent transvaginal ultrasound (TVUS) for at least 4 minutes. From TVUS recordings the following features of uterine contractility were extracted using a speckle tracking algorithm: frequency, amplitude, velocity, coordination, and direction.

**Results**

In total, 14 patients with leiomyoma were included and 94 in the control group. Uterine contraction features were statistically significant during midfollicular phase; higher frequency ( $1.63 \pm 0.11$  vs.  $1.44 \pm 0.13$  contractions/min) and amplitude ( $0.06 \pm 0.04$  vs.  $0.03 \pm 0.01$ ). During late follicular phase uteri with leiomyoma showed increased contraction coordination ( $2.39 \pm 0.41$  vs.  $1.83 \pm 0.45$ ) and early luteal phase lower amplitude ( $0.02 \pm 0.00$  vs.  $0.04 \pm 0.01$ ) as well as increased contraction coordination ( $-0.56 \pm 0.40$  vs.  $0.11 \pm 0.33$ ). In late luteal phase leiomyoma patients showed higher frequency ( $1.19 \pm 0.36$  vs.  $0.97 \pm 0.20$  contractions/min), higher amplitude ( $0.06 \pm 0.01$  vs.  $0.03 \pm 0.01$ ) and higher velocity ( $0.85 \pm 0.13$  vs.  $0.58 \pm 0.19$  mm/s) compared with women with healthy uteri.

**Conclusions**

Our results confirm differences in peristaltic activity between women with leiomyomata and women with healthy uteri. However, the clinical implications of these differences need to be clarified by further research. One notable limitation of this study is the relatively small sample size. In addition, an important area for future research is to investigate how uterine peristalsis may vary according to the specific type, volume, location and number of leiomyomas. Larger studies will be necessary for validation and extension of these preliminary observations.

### **Laparoscopic management of a caesarean scar pregnancy**

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#### **Background**

Ectopic pregnancy is the implantation of a fertilized ovum outside the uterine cavity. One of the possible sites of the ectopic implantation is the scar of a previous caesarean section.

The present case is about a patient G2P1 who presented in our emergency department with 7 weeks amenorrhoea and lower abdominal pain. The  $\beta$ -hCG was 5600 IU/ml. Transvaginal ultrasound revealed an ectopic gestational sac outside the anterior uterine wall respectively to the caesarean scar. Therefore, a laparoscopic management was opted.

#### **Methods**

A four-port laparoscopy was performed. After the initial inspection of the peritoneal cavity, surrounding tissues were removed in order to reveal the exact position of ectopic gestational sac that was lying on the anterior left side of the previous CS scar, in close proximity to the uterine vessels.

Using bipolar and monopolar diathermy and laparoscopic scissors, the ectopic sac was detached from the anterior uterine wall. In the sequel, the scar was removed and its remaining cavity was enclosed by a single-layer of interrupted extra-corporeal stitches and reconstruction of the anatomy was achieved.

A running intra-corporeal stitch was used to approximate the edges of uterovesical fold. Final inspection of the peritoneal cavity and an extended control of haemostasis were performed.

#### **Results**

The patient was discharged the 2nd day post-operatively and had uneventful recovery.

A follow up hysteroscopy was performed 3 months post-operatively and the uterine cavity appeared normal.

#### **Conclusions**

Laparoscopic management of caesarean scar ectopic pregnancy is safe and valid alternative to laparotomy and has excellent postoperative results.

<https://player.vimeo.com/video/951371987?autoplay=1>

**ABST-0567 -  
Free Communication**

**Endometrial regeneration with platelet rich plasma in infertile patients with reproductive failures**

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**Background**

It has been demonstrated that intrauterine Platelet Rich Plasma (PRP) infusion positively influences the reproductive results, suggesting that it can be potentially included in the different protocols for endometrial preparation. In our study, we investigated the role of hysteroscopic subendometrial injection and uterine infusion of autologous PRP on the endometrial thickness and the subsequent effect on clinical pregnancy rate and miscarriage rate.

**Methods**

We conducted an interventional, prospective, non-randomized, non-profit study. Patients were recruited from June 2023 to February 2024 in Hysteroscopic Unit of the University Hospital Federico II of Naples. Women of reproductive age (20-50 years old) with history of two or more failed IVF cycles (RIF) and/or refractory thin endometrium and candidates for an IVF cycle were enrolled. The technique of PRP preparation was standardized with the Food and Drug Administration approved commercially available kit (RegenKit® BCT). Nine mL of blood was drawn, centrifuged at 3600 rpm for 6 minutes, and a total of 4 mL of PRP was obtained. PRP was then administered within 10 min of preparation. Subendometrial injection of autologous not activated PRP in the proliferative phase of the previous cycle of embryo transfer (ET) between cycle days 9 and 13 was performed. Four mL of PRP was administered using an oocyte recovery needle inserted in the operative channel of rigid hysteroscope. In the next month, the endometrium was prepared by hormone replacement treatment protocol, and approximately on days 10-14 of the cycle, patients were administered 2 mL autologous intrauterine not activated PRP threaded into the ET catheter transvaginally under ultrasound guidance. 2D transvaginal ultrasound was performed at time of PRP administration and after one week to evaluate the difference in endometrial thickness. After the ET, the result was then noted.

**Results**

Twenty patients were enrolled in the study and 19 patients completed the procedure with ET. We enrolled 11 patients with RIF, 4 patients with thin endometrium and 5 patients with RIF and thin endometrium. The difference in thickness before and after PRP infiltration and infusion is statistically significant for the total study population ( $p < 0.01$ ). The procedure was well tolerated without severe adverse events. The clinical pregnancy rate is 63.2% and the miscarriage rate is 10.5%. Nowadays, one patient had successfully delivered, while the other patients still have an ongoing pregnancy.

**Conclusions**

In our setting, the estimated reproductive impact of autologous PRP injections in patients with refractory thin endometrium and RIF was positive. Indeed, the method of improving endometrial thickness by hysteroscopic infiltration of PRP followed by PRP uterine infusion, developed at our centre, yielded promising results, and has created new options for the use of PRP in infertile women with reproductive failures or with previously cancelled cycles due to a thin endometrium.



**ABST-0561 -  
Free Communication**

## **Feasibility and Outcomes for Patients Undergoing Laparoscopic Myomectomy for Large and Multiple Fibroids**

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### **Background**

To investigate the feasibility and outcomes of laparoscopic myomectomy in patients with large fibroids (diameter >10cm) and high-order fibroids (>10 fibroids).

### **Methods**

This prospective cohort study included 512 patients who underwent laparoscopic myomectomy between January 2004 and April 2024 at a University hospital in East London. The study categorised patients into three groups: those undergoing laparoscopic myomectomy for large fibroids (LLM), high-order laparoscopic myomectomy (HOLM), and laparoscopic myomectomy for other fibroid characteristics (LM). Primary outcomes assessed were operating time, length of hospital stay, and estimated blood loss. Data on patient demographics, including BMI and ethnicity, were also collected.

### **Results**

Amongst the 512 patients, 207 (40.4%) underwent either LLM or HOLM, with 42 (20.3%) undergoing HOLM and 165 (79.7%) undergoing LLM. Age and parity showed no significant differences between groups. The average operating time was 136 minutes for LLM, 159 minutes for HOLM, and 102 minutes for LM. The average hospital stay was 1.7 days for LLM, 1.6 days for HOLM, and 1.6 days for LM. Estimated blood loss averaged 360ml for LLM, 345ml for HOLM, and 209ml for LM.

Patients of African-Caribbean ethnicity comprised 57% of the LLM group, 78% of the HOLM group, and 54% of the LM group. This cohort had longer average operating times for LLM (143 minutes) and HOLM (163 minutes) compared to other ethnicities (129 minutes for LLM and 143 minutes for HOLM). Estimated blood loss was higher for African-Caribbean patients (406ml for LLM, 367ml for HOLM) than for other ethnicities (299ml for LLM, 267ml for HOLM). The length of hospital stay was similar across ethnicities, averaging 1.7 days for African-Caribbean patients and 1.6 days for other ethnicities in both LLM and HOLM.

### **Conclusions**

Patients with large or numerous fibroids are often excluded from minimally invasive myomectomy approaches, leading to inequity and poorer outcomes, particularly for Afro-Caribbean women who are disproportionately affected. Our findings indicate that despite longer operating times and slightly higher, but not statistically significant, blood loss, there is no increase in morbidity for patients undergoing LLM or HOLM. Therefore, minimally invasive surgery is a feasible and equitable option for patients with large and high-order fibroids, including those of African-Caribbean descent, and they should not be excluded based on the likelihood of a higher disease burden.

**ABST-0496 -  
Free Communication**

**Transabdominal 2D ultrasound and colour doppler assessment of abdominal wall thickness and distance to abdominal retroperitoneal and intraperitoneal vessels**

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**Background**

Most complications related to laparoscopy occur at time of entry. Though major vascular injury is rare during entry, they can have catastrophic outcomes and sequelae. The objective of this study is to assess abdominal wall thickness and distance to major intra and retroperitoneal vessels in patients with variable BMI before laparoscopy.

**Methods**

Prospective observational study using preoperative colour doppler 2D transabdominal ultrasound to measure abdominal wall thickness and distance from skin to aorta, inferior vena cava and superior mesenteric artery.

**Results**

Female patients (n=187) undergoing laparoscopic gynaecologic procedure between January 2021 and March 2024. Normal BMI (n=83), overweight BMI (n=57) and obese BMI class I - III (n=53) were included. For the entire cohort, mean (SD) abdominal wall thickness 2.59 cm (1.12), maximum periumbilical abdominal wall thickness 8.6cm, and distance (centimetres) from skin to aorta 3.20 (1.67), IVC 3.20 (1.80) and SMA 1.83(1.11) were measured. Abdominal wall thickness was significantly less for normal weight women compared to overweight and obese women (1.82 vs 2.57 vs 3.69, p<0.001). Compared to normal and overweight women, skin to vessel distance in obese patients was significantly larger for aorta (4.50 vs 5.69 vs 7.89, p<0.001), IVC (4.47 vs 5.76 vs 7.84, p<0.001), and SMA (3.45 vs 4.55 vs 5.70, p<0.001), respectively. When controlling for age, parity, and previous laparotomy or laparoscopic surgery, every per unit increase in BMI reduced the risk of falling in the lowest quartile of skin to vessel distance for aorta (aOR 0.73 95%CI 0.64-0.83, p<0.001) and IVC (aOR 0.71, 95%CI 0.62-0.82, p<0.001) and SMA (aOR 0.74, 95%CI 0.66-0.83, p<0.001).

**Conclusions**

2D colour doppler transabdominal ultrasound is feasible and useful in evaluating the abdominal wall thickness and distance to major retroperitoneal periumbilical vessels. Normal BMI patients have a significantly shorter distance to retroperitoneal vessels than overweight and obese patients. When choosing length of entry device, surgeons must remain mindful of the short distance to vessels regardless of BMI.



**Fertility outcomes following repeat advanced laparoscopic surgery for endometriosis-related infertility – a 10-year review**

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**Background**

Endometriosis affects 6% to 15% of the female population of childbearing potential, and infertility is one of the major consequences of the disease. It is believed that up to 50% of infertile women suffer from all-stage endometriosis.

Many treatment strategies are available to those patients, including medical therapy, dietary support, assisted reproduction techniques (ART), and surgery. Medical treatment and dietary support alleviate symptoms, but no significant increases in pregnancy rates have been observed. Surgery is sometimes viewed as being of limited value, and repeat surgery is considered futile in this respect, suggesting only ART improve pregnancy rates.

The objective was to retrospectively analyse fertility parameters in patients managed by our Team in Warsaw, Poland, recorded in a prospectively updated database. The database includes all consenting patients with a confirmed diagnosis of intraperitoneal endometriosis, starting from January 1<sup>st</sup>, 2013, and updated by the author (over 2100 records as of May 10<sup>th</sup>, 2024). The analysis period chosen for this presentation covers a period of 10 years, from January 1<sup>st</sup>, 2013, through December 31<sup>st</sup>, 2022.

**Methods**

The fertility database includes 404 infertile patients with all stages and forms of endometriosis, with another 107 patients lost to follow-up or withdrawing consent for data collection and processing. Of these, 173 patients underwent repeat surgery for endometriosis-related infertility (1 previous procedure, N=129; 2 procedures, N=27; 3 procedures, N=13; 4 procedures, N=3, and 5 procedures, N=1). All patients have previously followed infertility treatments, including medical therapy, surgery, and ART (up to 5 transfers in the study population). All patients underwent repeat advanced laparoscopic surgery in the study period.

The analysis included all patients as a single group, as well as in endometriosis grading-dependent subgroups, with additional consideration for natural conceptions, ART use, and live births.

**Results**

At the time of writing (May 2024), overall, 117 pregnancies in 110 patients have been confirmed among 173 qualifying patients, with a total of 35 miscarriages in 32 patients, 103 live births in 91 patients (9 premature births – the earliest at 29 weeks, twin pregnancy), and 2 ongoing pregnancies (with imminent due dates) – yielding a cumulative pregnancy rate of 63,6%, and live birth rate of 52,6%. ART in 69 patients yielded pregnancies in 53 of them (48,2%), while 57 patients conceived spontaneously (51,8%)

## **Conclusions**

Considering the endometriosis staging among these patients (Grade IV – 109 / 63,0%; Grade III - 39 / 22,5%; Grade II – 19 / 11,0%; and Grade I – 6 / 3,5%), with a majority of severe endometriosis (grade III + IV = 85,5%), an overall pregnancy rate of 63,6 % and live birth rate of 52,6% may be considered encouraging, and counter numerous findings advocating repeat surgery for endometriosis-related infertility does not improve fertility rates in patients undergoing such treatment.

**Impact of hyaluronic acid (ha) on the incidence of intrauterine adhesions (IUAs) following intrauterine surgical procedures, a systematic review**

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**Background**

IUAs, defined as fibrous scar tissue partially or completely obliterating the endometrial cavity and/or cervical canal, are often associated with impaired endometrial function that may lead to infertility, recurrent pregnancy loss and adverse impacts on obstetrical and perinatal outcomes. To determine the impact of intrauterine application of hyaluronic acid gel (HA) on the prevention of intrauterine adhesions (IUAs) following intrauterine surgical procedures.

**Methods**

A systematic search of the literature according to the PRISMA guidelines was performed in PubMed, Embase, and Cochrane databases to assess the efficacy of the application of HA following intrauterine interventions. The search was limited to humans and studies published in the English language. Only trials that made an exclusive comparison of HA with a control group were included. Searches using the Medical Subject Headings (MeSH) terms included IUA and intrauterine surgery related to the removal of retained products of conception (RPOC), the removal of submucous leiomyomas, hysteroscopic adhesiolysis and hysteroscopic metroplasty. No date limits were applied. Inclusion and exclusion criteria were designed to include only those patients at risk for adhesion formation. Each included study was subject to risk of bias analysis. The primary outcome was the Incidence and severity of IUAs.

**Results**

Our electronic search identified 2.214 studies. Following title, abstract, and full-text screening of 423 studies, seven RCTs were included. One study included women after different intrauterine procedures. Two studies reported the prevalence of IUAs after the removal of RPOC, two after hysteroscopic myomectomy, two after hysteroscopic metroplasty, and two following hysteroscopic adhesiolysis. The relative risk of IUAs for women undergoing treatment with HA gel was 0.42 (95% confidence Interval (CI): 0.25-0.72) after hysteroscopic evacuation of RPOC, 0.39 (95% CI: 0.20-0.77) after hysteroscopic myomectomy, 0.31 (95% CI: 0.12-0.77) after hysteroscopic metroplasty and 0.32 (95% CI: 0.17-0.61) after hysteroscopic adhesiolysis.

## **Conclusions**

Intrauterine application of HA following hysteroscopic evacuation of RPOC, hysteroscopic myomectomy, hysteroscopic metroplasty and hysteroscopic adhesiolysis significantly reduces the incidence of IUAs compared to controls.

**Uterine Artery Embolization before Myomectomy: Is it worth the trouble?**

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**Background**

In this study the patients who underwent myomectomy with pre-operative uterine artery embolization (UAE) are compared to those being operated without UAE. Primary aim is to analyse whether pre-surgical embolization reduces peri-operative blood loss and other related complications. Secondly, to analyse long-term outcomes of the two techniques, in terms of fertility and obstetrical complications.

**Methods**

Design: Retrospective study approved by the Brugmann University Hospital's ethics committee (CE2023/79).

Setting: The extensive database of the department of gynaecology has been used to extract all cases of myomectomy between January 2011 and December 2021. Hysteroscopic myomectomies have been excluded from the study.

Patients: 192 patients were included in this article.

Interventions: The population was divided according to the presence or absence of pre-operative UAE. UAE and myomectomy group consisted of 95 cases between 2011 and 2020. The myomectomy only group consisted of 97 cases between 2014 and 2021.

**Results**

This study demonstrated that pre-operative UAE reduces peri-operative blood loss but without significant difference on post-operative haemoglobin, blood transfusion rate or haemostatic hysterectomy conversions compared to myomectomy as only treatment. Moreover, UAE seems to be correlated to a significantly higher rate of miscarriages or complications that could lead to infertility such as extremely severe synechiae. Finally, when a pregnancy is achieved after UAE, it appears as a high-risk pregnancy of serious obstetrical complications like abnormal placentation or uterine rupture.

**Conclusions**

Since uterine fibroids mostly affect childbearing age women, and that infertility is one of the patients' complaints, combined with the fact that UAE presents obstetrical risks without providing any surgical added value, myomectomy as only treatment should be the first conservative treatment choice.

**Preconceptional laparoscopic cerclage for prevention of preterm birth: a systematic review**

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**Background**

Cervical cerclage is used for the prevention of preterm delivery caused by cervical insufficiency, contributing to the reduction of neonatal morbidity and mortality rates. Transabdominal cerclage is usually performed in women, who previously underwent transvaginal cerclage that failed to prevent pregnancy loss, or in those with a short cervix where transvaginal cerclage is not feasible. The aim of this systematic review is to summarize existing evidence on preconceptional laparoscopic cerclage.

**Methods**

A systematic review was conducted according to the PRISMA 2020 guidelines. A search up to 15th of April 2024 in PubMed and Cochrane databases was conducted. Original studies investigating the role of preconceptional laparoscopic cerclage on the pregnancy outcomes after follow-up were eligible for inclusion in this review.

**Results**

Ten studies involving 1060 patients were included in this systematic review. The pooled prevalence of deliveries after 37 weeks of pregnancy was 70% (95% CI 60- 79%, 7 studies, 515 pregnancies, I<sup>2</sup> 85%) and the pooled prevalence of live birth was 92% (95% CI 86- 95%, 10 studies, 713 pregnancies, I<sup>2</sup> =69%). Mersilene tape in comparison to conventional suture and anterior knot in comparison to posterior were associated with significantly higher rates of delivery after 37 weeks of pregnancy (OR 2.98, 95% 1.95-4.56 and OR 2.26, 95% CI 1.50-3.40, respectively).

**Conclusions**

This study indicates that preconceptional laparoscopic cerclage is effective in women with poor obstetric history, with previous failed cerclage or previous cervical surgery, with high rates of delivery after 37 weeks of pregnancy and live birth. Further research is needed to determine the optimal indications and techniques for preconceptional laparoscopic cerclage.

**ABST-0390 -  
Free Communication**

**T-shaped uterus and foetal growth restriction**

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**Background**

Müllerian anomalies, including T-shaped uterus, are associated with high incidence of adverse pregnancy outcomes. T-shaped uterus alters uterine cavity shape and volume (hypoplastic uterine cavity) with thickened lateral walls. Hysteroscopic metroplasty of the thickened lateral walls of the T-shaped uterus improves reproductive outcomes by expanding the volume and improving the uterine cavity morphology of dysmorphic uteri. There is conflicting data on the effect of Müllerian anomalies on intrauterine growth restriction (IUGR). The objective of this video is to demonstrate the role of hysteroscopic metroplasty on the obstetric outcome in a patient with T-shaped uterus and history of severe foetal growth restriction (FGR), most likely secondary to placental implantation on the lateral thickened wall.

**Methods**

A case report of a 36-year-old patient with history of primary infertility of two years duration secondary to male factor and endometrial polyp. Her past medical, surgical, and family history were non-contributory. She did not smoke or use any recreational drugs. Transvaginal 3D ultrasound (TV 3D US) with and without saline infusion hystero-sonogram (SIH) suggested T-shaped uterus. She underwent a diagnostic hysteroscopy and polypectomy and a T-shaped uterus with partial septate uterus (PSU) was diagnosed. The patient conceived with IVF-ET, however, her pregnancy ended in a caesarean section (CS) due to unexplained severe foetal growth restriction (FGR) at 29 weeks gestation. Anatomy scan at 19 weeks gestation revealed that the placental location was on the right lateral thickened uterine wall. Subsequently, the patient underwent 2 cycles of frozen-thawed blastocyst with single blastocyst transfer, and both failed. The patient underwent hysteroscopic metroplasty for T-shaped uterus and septoplasty for PSU.

**Results**

Post-operative TV 3D US with SIH revealed a normal uterine cavity. The patient conceived after one frozen-thawed cycle. The patient was managed by maternal foetal medicine team and serial growth ultrasound studies were performed. The patient carried the pregnancy to 34 weeks, and she was delivered by CS for foetal growth restriction and oligohydramnios.

**Conclusions**

T-shaped uterus and partial septate uterus should be ruled out in patients with unexplained foetal growth restriction. Hysteroscopic metroplasty and septoplasty, through uterine morphology remodelling and uterine vascularization improvement, may improve reproductive outcomes in such patients.

<https://player.vimeo.com/video/945928856?autoplay=1>

**ABST-0386 -  
Free Communication**

**Old- versus New-School: Laparoscopy versus Laparotomy in Complex and Multiple Myomectomies:  
A Retrospective Study**

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**Background**

The aim of this original retrospective study is to compare laparotomy versus laparoscopy in complex myomectomies.

**Methods**

Design: Retrospective study approved by the Brugmann University Hospital's ethics committee (CE2023/79).

Setting: Complex myomectomies were defined as single fibroids larger than 10cm and multiple fibroids (>1) of variable size.

Patients: Ninety-four patients (mean-age 35 years) were included. The laparoscopic and laparotomic myomectomy groups consisted of 54 and 40 patients respectively.

Interventions: The population was divided according to laparotomic or laparoscopic myomectomy

**Results**

The peri-operative blood loss is significantly higher when the surgical approach used was laparotomy (700 vs 500 mL,  $p=0.031$ ), associated with a greater drop in haemoglobin (2.3 vs 2.1,  $p=0.081$ ) and a higher transfusion rate (0.13% vs 0.06%,  $p=0.486$ ). Median surgery time was shorter (180 min. vs 240 min.,  $p=0.0002$ ) and hospital stay longer (3 days vs. 2 days,  $p<0.0001$ ) in the laparotomy group. The laparotomy conversion rate was 3,2%. In multiple linear regression analysis, blood loss appears to be significantly influenced by the number of fibroids and the fibroids' weight. Hospital stay appears to be significantly influenced by the patients age, the fibroids' weight, and the surgery time.

**Conclusions**

Our results show that even in complex myomectomies (single myomas more than 10cm or multiple myomas more than one fibroid), laparoscopic approach should still be the first line of treatment for women wishing to preserve their fertility. Laparoscopic myomectomy does not signify higher risks or complications and has significantly lower risk of bleeding and hospitalisation time.



**ABST-0202 -  
Free Communication**

**Exploring Diagnostic Methods and Correlation between Visual Signs and Plasma Cell Indices in Chronic Endometritis: A Study on Infertility Patients**

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**Background**

Chronic endometritis (CE) is a persistent inflammatory disease of the endometrium, characterized by the presence of plasma cells in the stroma of the endometrium.

Immunohistochemical staining of the endometrium for CD138 is considered by many to be the most reliable and accurate diagnostic tool for chronic endometritis. On the other hand, the Delphi method identified pathogenetic signs of chronic endometritis for visual diagnosis on hysteroscopy.

The question is which method is effective for diagnosing chronic endometritis.

**Methods**

In the first stage of our research, an office hysteroscopy was performed on 200 patients using a Bettocchi 5 mm hysteroscope. Hysteroscopy was a routine procedure at the stage of endometrium preparation for cryo embryo transfer in the reproductive health centre "Damiya". The average age of the patients was  $32.5 \pm 1.2$  years, with 94 (47%) patients experiencing primary infertility and 106 (53%) with secondary infertility. The study was conducted from 2021 to 2023.

During office hysteroscopy, all patients underwent examination of the uterine cavity and biopsy of the endometrium with forceps. Photo and video recordings of hysteroscopy were performed.

Endometrial samples were fixed in neutral buffered formalin for 24 hours, embedded in paraffin using standard methods. 4-micron-thick sections were stained with H&E and IHC methods for CD138 (DAKO, clone MI15) on DAKO Autostainer Link 48 using the DAKO Link visualization system.

According to the analysis, 90 patients were diagnosed with CE. Among these patients, two groups were distinguished: a group (27 patients) with severe visual signs of CE according to the Delphi method, and a group in which these signs were practically absent (22 patients) – mild signs. Stained slides of these patients were scanned on a 3DHitech Panoramic Midi scanner. Morphometric evaluation (the square of each fragment) was performed using standard instruments of 3DHitech SlideViewer software (version 2.7). Plasma cell count was performed in all endometrial fragments avoiding cervical mucosa. The relative index of plasma cells per  $1 \text{ mm}^2$  was calculated - the index of plasma cells.

A comparison of plasma cell indices was made between groups of patients with severe and mild signs of CE.

**Results**

There was no significant difference between plasma cell indices in both groups of patients. The data are presented as median and interquartile range. Additionally, 4 patients in the group with mild signs of CE exhibited pronounced infiltration of plasma cells in the form of a conglomerate.



## **Conclusions**

It is suggested that the visual signs of CE defined by the Delphi method are effective for diagnosing CE during hysteroscopy. The number of plasma cells may vary in different pieces of endometrium taken for biopsy.

To confirm the obtained data, a study with a larger number of patients and performing biopsies from several locations in each specific case is required.

**Free Communication**

**Ten Step Laparoscopic Pectopexy with Extracorporeal Knot Technique**

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**Background**

Advanced suturing and dissection skills are necessary for these pelvic floor reconstruction operations, which are associated with potential complications such as mesh exposure, dyspareunia, ileus, de novo bowel dysfunction, and intraoperative injury. The objective is to present a video detailing a newly developed minimally invasive technique for addressing apical and anterior vaginal wall defects.

**Methods**

We report a simple method for laparoscopic pectopexy with two ports and extracorporeal slippage knot, with step-by-step instructions.

Steps (10 steps) of pectopexy;

1. The peritoneum was opened to dissect the bladder and expose the cervix. The peritoneum was opened along the right round ligament.
2. The peritoneal incision is extended to the right triangular area between the round ligament and the medial umbilical ligament.
3. The pectineal ligament is found by incising fatty tissue equivalent to the projection of the obliterated umbilical.
4. The peritoneal incision is extended to the left triangular area between the round ligament and the medial umbilical ligament.
5. Left pectineal ligament dissected on the left.
6. Dissection of the bladder up to the bladder neck.
7. Fixation of middle part of mesh into cervix and anterior vaginal wall with 6 to 10 sutures by extracorporeal knot technique.
8. The mesh end is anchored to the right pectineal ligament with extracorporeal slipping knot.
9. The mesh end is anchored to the left pectineal ligament similar to right side.
- 10 Retroperitonization of mesh with absorbable suture.

**Results**

No mesh erosion or long-term complications occurred. At a 1-year control, no cases of recurrence. The median postoperative point C was - 8 cm.

**Conclusions**

This pectopexy method with novel extracorporeal knot technique is feasible and safe minimally invasive way to correct primarily apical or multicompartement defects with short operation time and good anatomical support.

<https://player.vimeo.com/video/944980295?autoplay=1>

**ABST-0751 -  
Free Communication**

**Approach to the bulky metastatic obturator lymph nodes by minimally invasive surgery.**

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**Background**

To demonstrate laparoscopic resection of bulky obturator lymph node metastasis detected during laparoscopic staging surgery for uterine cancer. Knowledge of the anatomy of the retroperitoneum and develop potential spaces facilitates retroperitoneal lymph node dissection. Therefore, the aim of this surgical video is to demonstrate anatomic landmarks of laparoscopic lymphadenectomy.

**Methods**

A step-by-step explanation of the procedure using a video.

**Results**

This is the case of a 49-year-old woman presented with postmenopausal bleeding. Endometrial biopsy was performed, and pathology revealed FIGO grade 2 endometrioid endometrial adenocarcinoma. Pelvic magnetic resonance imaging also confirmed 37\*29 mm endometrial mass. There was no suspicious lesion for distant metastasis and laparoscopic staging surgery was planned. Laparoscopic hysterectomy, bilateral salpingooferection and bilateral pelvic and periaortic lymph node dissection were carried out in the unit of Oncology, Azerbaijan Medical University. Anatomic landmarks for laparoscopic lymphadenectomy were reviewed in this surgical video.

**Conclusions**

The key to safe, efficient, and effective laparoscopic surgery is a comprehensive knowledge of anatomy. Therefore, understanding of the detailed pelvic anatomy is essential for performing laparoscopic surgery for bulky metastatic lymph nodes.

<https://player.vimeo.com/video/960328064?autoplay=1>

**ABST-0750 -  
Free Communication**

**Determination of the correlation between the results of the intraoperative and final pathological examinations in uterine cancer patients. Results and Retrospective Analysis of 218 Cases**

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**Aim**

Aim of this study is to investigate the correlation between frozen sections and final pathological diagnosis and the potential impact of frozen sections on intraoperative management.

**Background**

Surgery is fundamental in the treatment of endometrial carcinoma and the frozen section is quite important in the management of the surgery. Unnecessary surgery is avoided in low-risk patients and eventually, morbidity and costs are reduced with frozen sections. Proper surgery in high-risk patients affects survival.

**Materials / Patients**

A total of 139 patients with frozen/final pathology results from 218 patients who were operated on for endometrial cancer and were retrospectively evaluated for tumour size, myometrial invasion, tumour histology, grade, and cervical involvement. Clinicopathological data were obtained from patient files and hospital information systems.

**Methods / Results**

Correlation between frozen section and final pathological result for a grade, myometrial invasion, histological subtype, tumour diameter, and cervical involvement were %82,1(123/139), %82,4(124/139), %80,8 (113/139), %95,8(100/139) and %83,4 (118/123), respectively. None of the 139 patients had overtreatment and 10 (%7,2) patients (3 had myometrial invasion and 7 had grade mismatch) had undertreatment.

**Discussion**

This study determined that the frozen examination had high efficacy and reliability in distinguishing high and low-risk endometrial cancer.

**Conclusion**

Frozen section and final pathology showed a high correlation for grade, myometrial invasion, histological subtype, tumour diameter, and cervical involvement. These factors can be used to guide intraoperative decision-making about the necessity of lymphadenectomy in patients with endometrial cancer.

**Impact to Patients' Health**

Frozen section and final pathology showed a high correlation for grade, myometrial invasion, histological subtype, tumour diameter, and cervical involvement.

**ABST-0729 -  
Free Communication**

**A novel clinical and ultrasound algorithm for detecting uterine sarcoma and uterine smooth muscle tumours in patients with myometrial lesions.**

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**Background**

Establishing a differential diagnosis between benign uterine smooth muscle tumours and uterine sarcomas is challenging. There are no validated clinical or radiological criteria to accurately differentiate between benign and malignant myometrial lesions. The aim was to prospectively assess the precision of a clinical and ultrasound algorithm in determining uterine sarcoma and STUMPs in patients with myometrial lesions.

**Methods**

This prospective, single-centre, observational study enrolled patients aged 18 years and older with a myometrial lesion  $\geq 3$  cm on ultrasound scan. All participants received a baseline medical evaluation and transvaginal ultrasound examination. A diagnostic algorithm, based on patient's symptoms and ultrasound features, was used to categorize patients as "White", "Green", or "Orange" upon enrolment. Patients classified as "White" received annual telephone follow-up for two years. Longitudinal clinical and ultrasound monitoring were scheduled for patients identified as "Green" at 6, 12, and 24 months. Patients designated as "Orange" underwent surgical treatment. Here, we present an updated analysis at 12 months follow-up. This study is registered with ClinicalTrials.gov, NCT04123158, and recruitment is complete.

**Results**

Between Jan 19, 2019, and Dec 4, 2021, 2,488 women were recruited and 2,268 were eligible for inclusion in our analysis. The results are under submission, and they will be presented during the annual congress.

**Conclusions**

Our algorithm and traffic-light system effectively assessed patient risk levels before surgery using clinical and ultrasound information. The outcomes of our study, when substantiated in a multi-centre investigation, will aid healthcare professionals in distinguishing between benign and malignant myometrial tumours and implementing personalized treatment strategies.

**Artificial intelligence applied to ultrasound imaging for benign gynaecologic disorders: a systematic review**

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**Background**

to explore the role of artificial intelligence (ai) applied to ultrasound imaging in benign gynaecologic disorders.

**Methods**

web of science, PubMed and Scopus databases were searched. inclusion criteria consisted of studies using ai in the diagnosis and management of benign gynaecologic disorders. all studies retrieved from the search strategy were imported to Rayyan qcri software. the overall quality of the included studies was assessed using quadas-ai tool.

**Results**

forty-one studies were included; of these 10/41 were on infertility and assisted reproductive technology (art), 10/41 on polycystic ovary syndrome (pcos), 6/41 on pelvic floor disorders, 5/41 on endometriosis, 5/41 on other benign ovarian pathologies and 5/41 on endometrial or myometrial pathologies. studies were conducted mostly in china 14/41 (34.1%). according to quadas-ai quality assessment, most studies were at high risk of bias for *subject selection* (i.e. sample size, source or scanner model were not specified; data was not derived from open-source datasets; imaging preprocessing was not performed) and *index test* (ai models was not externally validated) and at low risk of bias for *reference standard* (i.e. the reference standard correctly classified the target condition) and *workflow* (i.e. the time between the index test and the reference standard was reasonable). the vast majority of studies (32/41) developed and internally validated ai models to create classification tasks useful for distinguishing between normal and pathological cases (i.e. pco vs normal ovary, presence of pelvic endometriosis vs non-endometriosis, urinary incontinence vs non-incontinence, ovarian cyst vs normal ovary), whereas 9/41 studies aimed to automatically segment or measure ovarian follicles, ovarian volume or endometrial thickness.

**Conclusions**

the published literature on ai applied to ultrasound in gynaecology focused on creating classification models to distinguish between normal and pathological cases, and on developing models to automatically segment or measure ovarian volume or follicles.



**ABST-0670 -  
Free Communication**

**“ultrasound scan, the key for any endometriosis centre”.**

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**Background**

endometriosis affects about 10% of reproductive-age women and girls globally, which amounts to approximately 190 million individuals. endometriosis causes severe pain, infertility, and impacts the overall well-being of patients. it takes on average 7 to 10 years and 5 to 7 doctors' visits to be diagnosed. the relevance and accuracy of ultrasound scan (uss) in the pre-operative assessment of deep infiltrating endometriosis (die) it is well established and often used in selected centres of excellence. it's use in a district general hospital is less common. we use it as a diagnostic and stratifying tool.

**Methods**

we describe how endometriosis ultrasound scan (euss) following the international deep endometriosis analysis (idea) consensus, and the morphological uterus sonographic assessment (musa) are utilised to diagnose and stratify the surgical approach to endometriosis surgery in our service.

we are a low volume endometriosis centre and as such we are mindful of our limited resources.

based on our uss findings we stratify patient's surgery as

- 1- mild/moderate complexity – mainly peritoneal endometriosis; and
- 2- high complexity - frozen pelvis / deep endometriosis of the bowel / bladder (these all have magnetic resonance imaging (mri) and multidisciplinary review for joint surgery).

**Results**

we retrospectively review the surgical findings and pre-operative uss. in 2023 out of 100 surgeries, 67 were for pelvic pain and suspected endometriosis. out of those, six presented with previous mri scans, leaving sixty-one of which required uss, three presented with external uss, the rest had euss. out of the 58 patients that has euss in our department, 8 needed further assessment with mri.

we found that the idea soft markers and clinical symptoms correlates very well with peritoneal endometriosis as surgical findings; the musa criteria have also high correlation with adenomyosis on histology results in our patients. out of 67 surgeries for suspected endometriosis, we only had 3 negative laparoscopies, from those only 1 had an euss.

## **Conclusions**

uss is a valuable and reliable instrument which allows to predict the surgical complexity and stratify the cases in low, moderate, or high complexity. this streamlines the patient pathway and experience reducing the need for MRI and the mdt workload.

**ABST-0558 -  
Free Communication**

**T-shaped dysmorphic uterus: comparison between 3D ultrasound measurements before and after hysteroscopic metroplasty**

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**Background**

The dysmorphic T-shaped uterus represents an ill-defined entity and the gold standard for its treatment is represented by the hysteroscopic metroplasty. The aim of the study is to compare 3D ultrasound measurements before and after surgery.

**Methods**

20 stored 3D transvaginal uterine volumes of women with a diagnosis of T shaped uterus were evaluated offline before and after the hysteroscopic metroplasty. All the included uteri were considered T-Shaped by four ultra sonographers and had hysteroscopic diagnosis based on the presence of an increased distance between the tubal ostia, a narrow uterine cavity, or an abnormally elongated cervical canal. All the doubtful T-Shaped uteri or with fundal indentation (Y-shaped) were excluded. Uterine morphology assessment, before metroplasty, was performed on a coronal plane by measuring: fundal cavity width (Wf); corpus-isthmic level cavity width (Wi); uterine cavity length (L); lateral indentation angle (AI); lateral bulging (LB); length of the intracavitary line parallel to the interstitial line at 10 mm from it (R10). These measurements were compared with those taken on the same cohort after hysteroscopic correction.

**Results**

Among the cohort, Wf/Wi ratio and LB showed a statistically significant reduction after hysteroscopic metroplasty. In fact, the mean Wf/Wi ratio before surgery was 5,19 ( $\pm 1,84$ ) while after surgery was 3,43 ( $\pm 0.96$ ) ( $p < 0.0054$ ), and the mean LB before metroplasty was 6,52 mm ( $\pm 1,36$ ) and after was 2,77 mm ( $\pm 1,03$ ) ( $p < 0.0001$ ). At the same time, R10 and AI showed a statistically significant increase after metroplasty: before the surgery, mean R10 was 8,83 mm ( $\pm 1,30$ ) and mean AI was 127,52° ( $\pm 8,06$ ), while after surgery they measured respectively 13,36 mm ( $\pm 2,15$ ) ( $p < 0.0001$ ), and 151,95° ( $\pm 6,82$ ) ( $p < 0.0001$ ).

**Conclusions**

Hysteroscopic metroplasty seems to be the gold standard for the treatment of T-shaped uterus. 3D ultrasound examination is a useful tool for analyzing the results of surgical treatment of this malformation, comparing measurements before and after treatment and evaluating if the normal morphology of the cavity has been restored.

**ABST-0542 -  
Free Communication**

**Uterine displacement as fertility sparing technique for pelvic malignancies: demonstration of the surgical options on a human cadaver**

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**Background**

Preservation of fertility without compromising oncological outcomes is a major objective in young patients at the time of cancer treatment. Radio(chemo)therapy is often required in pelvic malignancies (anus, rectum, sarcoma). Direct irradiation results in a damage to ovarian and endometrial function, compromising the fertility of female patients of reproductive age. While ovarian transposition is an established method to move the ovaries away from the radiation field, corresponding surgical procedures displacing the uterus are investigational.

**Methods**

In a human female cadaver model, the reported laparoscopic techniques of uterine displacement were carried out to demonstrate their feasibility and the step-by-step surgical techniques. The surgeries were performed in a hybrid operating room which enables to perform CT-scan and evaluate the uterine positions according to anatomical landmarks.

The following procedures were performed in the same cadaveric model and were described in the video: 1. Uterine suspension of the round ligaments to the abdominal wall 2. Uterine ventrofixation of the fundus at the level of the umbilical line 3. Uterine transposition according to the technique reported by Ribeiro et al.

**Results**

All procedures were completed without technical complications. All of these uterine displacement procedures are technically feasible.

**Conclusions**

Uterine transposition is the most technically complex procedure, and its effectiveness in protecting the endometrium should be evaluated in comparison to the simpler techniques (Table 1). Future studies incorporating radiotherapy simulations are needed to define which technique represents the best compromise between surgical complexity and positioning the uterus at a level that receives the lowest possible radiation dose.

Ventrofixation Round Ligament Suspension Transposition

Surgical Complexity	+	++	+++
Patients discomfort	+	++	+++
Intraoperative complications	+	+	+++
Post-operative complications	+	+	+++
Pregnancy rate	+	+	+++

Table 1. Synoptic summary of displacement techniques pro and cons.

<https://player.vimeo.com/video/950682738?autoplay=1>

**ABST-0539 -  
Free Communication**

**Diagnostic accuracy of transvaginal ultrasound compared with magnetic resonance in preoperative staging of endometrial cancer: a preliminary experience in Florence**

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**Background**

The aim of the study was to compare the transvaginal ultrasound (TVS) and magnetic resonance imaging (MRI) diagnostic accuracy in the preoperative staging of endometrial cancer in a recently implemented second-level ultrasound Center in Florence (Italy).

**Methods**

This was a prospective, single-centre study in women diagnosed with endometrial cancer from April 2023 to April 2024. All patients underwent transvaginal greyscale and Doppler ultrasound pelvic assessment according to the IETA study protocol by experienced sonographers. During the first 6 months of enrolment, women also underwent pelvic MRI while in the second half of the year, MRI was only performed if required by the sonographer. The initial preoperative staging of TVS was compared with that of MRI to assess whether there was concordance, and the presumed staging was compared with the final histological result according to the FIGO 2023 classification.

**Results**

A total of 44 endometrial cancer patients were included in the final analysis. All patients underwent preoperative staging by TVS, and 24 of them also underwent additional MRI. The median age was 66.84 years (range, 47-90). All women had previously undergone a hysteroscopic biopsy, and in 90.24% of cases the diagnosis was endometrioid endometrial cancer. TVS preoperative staging identified 54.55% of cases as stage IA, 29.55% as IB and 15.91% as IIIA. The preoperative MRI diagnosis was classified as IA in 54.17% of cases, IB in 16.67%, 1 case was diagnosed as IIA, and stage III was detected in 25% of cases, of which 2 cases were IIIA, 2 were IIIB, and 2 were IIIC. The final histological diagnosis after hysterectomy confirmed endometrioid endometrial cancer in 93.18% of cases. The definitive staging was reported as stage IA in 43.18% and IB in 31.82%. In 9.09% a stage II was recognized, 2 cases were IIA and 2 cases were IIB and a stage III was detected in 16.64% of the cases, in particular 5 cases were IIIA and 1 case was IIIB. Finally, stage IVB was recognized in 1 case. Ultrasound staging was consistent with MRI staging in 79.17% of cases.

Preoperative staging by TVS was in accordance with final histology in 65.91% of cases, compared to 62.50% for MRI. When TVS and MRI were discordant, TVS agreed with histology in 3 out of 5 cases (60%), MRI staging agreed with histology in 1 case, and both imaging modalities were discrepant with final staging in 1 case.

**Conclusions**

Our initial experience confirms that TVS and MRI have an overlapping role in pre-surgical staging of endometrial cancer. When these methods disagree, TVS seems to be more accurate in staging.

**ABST-0443 -  
Free Communication**

**How to assess Peritoneal Carcinomatosis In 10 Steps? Peritoneal Cancer Index and Fagotti Score**

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**Background**

This video aimed to describe a comprehensive and systematic approach for assessing peritoneal carcinomatosis through ten standardized steps, describing Peritoneal Cancer Index (PCI) and Fagotti Score.

**Methods**

The video demonstrated the application of PCI and Fagotti Score in assessing the extent and severity of peritoneal cancer.

**Results**

The video provided a clear and concise demonstration of the ten-step assessment process, incorporating the PCI and Fagotti Score methodologies. The application of these scoring systems facilitated a comprehensive evaluation of peritoneal carcinomatosis, enabling accurate staging and prognostication.

**Conclusions**

By integrating the PCI and Fagotti Score into routine practice, healthcare professionals can enhance diagnostic accuracy, treatment planning, and prognostic stratification for patients with this condition. The standardized methodology presented in the video holds significant promise for optimizing patient care and improving outcomes in peritoneal cancer management.

<https://player.vimeo.com/video/945960006?autoplay=1>

**ABST-0442 -  
Free Communication**

**Evaluation Of The Predictive Performance Of PET And PET/MRI For Prediction Of Lymph Node Positivity in Endometrial Cancer**

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**Background**

In our study, we aimed to evaluate the performance of preoperative PET (positron emission tomography) and PET/MRI (Magnetic resonance imaging) in endometrial cancer in terms of predicting lymph node positivity in the postoperative pathology result.

**Methods**

The records of endometrial cancer patients operated on in the last 5 years in the Ankara University Faculty of Medicine were retrospectively analysed. Inclusion criteria were patients who underwent surgery for endometrial cancer, had preoperative PET or PET MR imaging and were staged in terms of lymph node. Patients receiving primary chemoradiotherapy, patients without preoperative PET-PET/MRI and patients without intraoperative lymph node staging were excluded from our study.

**Results**

A total of 176 patients, 42 in the PET/MRI group and 134 in the PET group, were included in our study. The performance of two groups with comparable demographic and clinical characteristics (Table 1) in predicting lymph node positivity in the final pathology result was evaluated.

In this study, we assessed the diagnostic accuracy of PET and PET/MRI by evaluating their Area Under the Curve (AUC), sensitivity, specificity, Negative Predictive Value (NPV), and Positive Predictive Value (PPV). The AUC for PET was 0.714 (95% CI: 0.606 – 0.822), with a sensitivity of 60.87% (95% CI: 38.0 – 80.0%), specificity of 82% (95% CI: 73.6 – 88.6%), NPV of 91% (95% CI: 86.0 – 94.0%), and PPV of 41.2% (95% CI: 29.0 – 54.0%). In comparison, PET MRI demonstrated a higher AUC of 0.759 (95% CI: 0.607-0.912), with a sensitivity of 80.0% (95% CI: 44.4 – 97.5%), specificity of 71.9% (95% CI: 53.3 – 86.3%), NPV of 92.0% (95% CI: 77.0-98.0%), and PPV of 47.1% (95% CI: 32.0 – 63.0%) (Figure 1), (Table 2).



Table 1: Demographic and clinical characteristics of patients

	All patients (176)	PETBT (134)	PETMR (42)	P
Age	62 (±9.97)	62.5 (±11.2)	60.2 (±3.32)	0.193
<b>Grade</b>				<b>0.009</b>
1	55 (31.3)	48 (35.8)	7 (16.7)	
2	74 (42)	48 (35.8)	26 (61.9)	
3	47 (26.7)	38 (28.4)	9 (21.4)	
<b>MI</b>				<b>0.631</b>
<1/2	107	84	23	
>1/2	69	50	19	
<b>LVSI</b>				<b>0.121</b>
Negative	110 (62.5)	88 (65.7)	22 (52.4)	
Positive	66 (37.5)	46 (34.3)	20 (47.6)	
		PET	PET/MRI	
AUC		0.714 (0.606 – 0.822)	0.759 (0.607-0.912)	
Sensitivity, % (95% CI)		60.87 ( 0.38 – 0.80)	80.0 (44.4 – 97.5)	
Spesicity, % (95% CI)		82 (73.6 – 88.6)	71.9 (53.3 – 86.3)	
NPV, % (95% CI)		91 ( 0.86 – 0.94)	92.0 (0.77-0.98)	
PPV, % (95% CI)		41.2 ( 0.29 – 0.54)	47.1 (0.32 – 0.63)	

Table 2: Performance metrics of two imaging modalities on the lymph node positivity

### Conclusions

These results suggest that while PET/MRI may show a slight improvement in diagnostic performance over PET, the outcomes remain largely comparable, particularly in terms of sensitivity and overall diagnostic accuracy as reflected by the AUC.

**ABST-0421 -  
Free Communication**

**Assessment of surgical preparedness of obstetrics and gynaecology residents for basic gynaecological procedures: a national French survey**

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**Background**

This study aimed to investigate the opinions of French OB-GYN residents and teachers regarding the autonomy granted during residency and the preparedness of residents upon graduation to perform basic gynaecological surgical procedures. A secondary objective was to explore participants' opinions on factors that could enhance residents' autonomy throughout their training.

**Methods**

A national survey of OB-GYN residents and their academic teachers was conducted using an online questionnaire distributed between February and May 2023. The study aimed to gather opinions on the level of autonomy granted in the operating room for performing basic gynaecology procedures, such as operative hysteroscopy, adnexal surgery, and hysterectomies. Additionally, perceptions of preparedness upon graduation were explored. The survey also examined perceptions on the impact of the following factors for surgical autonomy improvement: case volume, quality of coaching, simulation, formative and summative assessment.

**Results**

The response rate was 43% for residents (510/1197) and 31% for academic's teachers (42/137). More than 75% respondents from both groups though it was important to be well prepared to perform hysteroscopy, adnexal surgery, hysterectomy by laparoscopy and laparotomy. Residents were less convinced than academic teachers regarding the importance of vaginal hysterectomy (41% vs 76%,  $p < 0.001$ ). From the 3rd year onwards, more than 80% of the residents stated that they were autonomous in the operating room during the companionship for hysteroscopy and adnexal surgery. Regarding hysterectomy, the only approach for which autonomy occurred for more than 2 thirds of residents (75%) during their last year of residency (6 years in France) was laparoscopy. Opinion of residents and academic teachers regarding resident's surgical preparedness by graduation were similar, except for vaginal hysterectomy (30% vs 57%,  $p < 0.001$ ). Residents were though prepared to perform hysteroscopy and adnexal surgery by >90% of respondents. Regarding hysterectomy, opinions vary depending on the approach. The only approach for which more than 2 thirds of residents (67%) were thought to be prepared by graduation was laparoscopy. Regarding factors promoting surgical autonomy, 99% of interns and 97% of teachers considered case volume and coaching quality essential. Surprisingly, only 37% of residents and 55% of teachers deemed the introduction of summative assessment relevant.

**Conclusions**

Except for hysteroscopy and adnexal surgery, French OB-GYN residents and teachers reported insufficient preparedness to perform basic surgical procedures. This survey revealed disparities in the teaching of hysterectomy approaches, with less emphasis on vaginal and laparotomy approaches.

**ABST-0315 -  
Free Communication**

**Laparoscopic total infralevatory pelvic exenteration and Singapore flap reconstruction for recurrent vulvar cancer**

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**Background**

Step by step video presentation of Laparoscopic total infralevatory pelvic exenteration and Singapore flap reconstruction for a patient with recurrent vulvar cancer

**Methods**

Video presentation of a case performed in tertiary hospital setting

**Results**

The patient was 66-year-old woman with a previous radical wide deep local excision and inguino femoral lymphadenectomy for primary vulvar squamous carcinoma. She experienced two local recurrences which all was handled with local excision and then with chemoradiotherapy. The patient admitted to our clinic with pain and foul-smelling vaginal discharge. She had 3 cm local recurrence unresponsive to chemoradiotherapy without any evidence of distant metastasis. Pelvic exenteration was recommended in multidisciplinary tumour board. The operation consisted of four phases: 1) Laparoscopic phase: preparation of pelvic organs, 2) Vaginal phase: resection of vulvar tumour along with pelvic organs 3) formation of ileal conduit and end colostomy 4) reconstruction of vulvar defect with Singapore Flap. Total operation time was 480 minutes with 100 cc blood loss mainly in vaginal phase. Patient was discharged 32 days after the surgery.

It has been 5 months since the operation without any evidence of the disease.

**Conclusions**

Laparoscopic total infralevatory pelvic exenteration is a feasible method with considerable complication rates even in ultraradical surgical setting.

<https://player.vimeo.com/video/945883615?autoplay=1>

**ABST-0245 -  
Free Communication**

**Does colorectal endometriosis lesion size and anatomical location affect gastrointestinal function impairment? A prospective cohort study**

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**Background**

Deep colorectal endometriosis (DE) affects 5% to 12% of women diagnosed with deep endometriosis. Women suffering from DE frequently report gastrointestinal (GI) function impairment. In symptomatic patients, a possible association between the localization of the endometriotic lesions and the type and intensity of symptoms has been discussed. However, to which extent the size of bowel lesions do affect the degree of GI function impairment and dyschezia has not yet been established.

The aim of the present study was to evaluate a possible correlation between the size and anatomical location of symptomatic colorectal DE and GI impairment and pain symptoms.

**Methods**

The study included consecutive patients operated for symptomatic colorectal DE at the Hospital of St John Vienna and Rudolfinerhaus Private Clinic Vienna from April 2017 to May 2022.

Patients undergoing surgical treatment for colorectal DE by either nerve-vessel sparing full thickness segmental resection (NVSSR) or full thickness discoid resection (FTDR) were evaluated presurgically regarding the degree of GI function impairment and pain symptoms. DE lesion size as graded by the #Enzian classification and location reflected by distance from the anal verge were evaluated intraoperatively. The primary outcome measure was the correlation between lesion size and location with the GI impairment reflected by presurgical lower anterior resection syndrome (LARS) scores; the secondary outcome were differences in presurgical numeric analogue scales (NAS) pain scores of dyschezia, dyspareunia and dysmenorrhea.

**Results**

Out of 162 consecutive patients, 151 were included in the final analysis. No significant correlation was observed between lesion size (#Enzian compartments C1/C2/C3) or location and GI function impairment reflected by LARS-like symptoms ( $p=0.868$ ,  $p=0.185$ ) or pain symptoms (dyschezia, ( $p=0.265$ ); dyspareunia, ( $p=0.737$ ) and dysmenorrhea, ( $p=0.454$ )). Furthermore, no significant correlation was observed when merging two severity grades (#Enzian compartments C1 plus C2 versus C3) ( $p=0.606$ ) regarding differences in GI function or pain scores. In addition, anatomical location of bowel DE did neither affect GI function impairment ( $p=0.185$ ) nor the degree of dyschezia ( $p=0.892$ ), dyspareunia ( $p=0.146$ ) or dysmenorrhea ( $p=0.650$ ). Finally, the presence of concomitant DE lesions affecting the vagina/rectovaginal space (#Enzian compartment A) and/or sacrouterine ligaments/ parametrium (#Enzian compartment B) did not alter the severity of preoperative

dyschezia ( $p=0.493$ ) or dysmenorrhea ( $p=0.128$ ) but showed a trend for affecting GI function ( $p=0.078$ ) and were significantly associated with dyspareunia ( $p=0.035$ ).

### **Conclusions**

There is no correlation between colorectal DE lesion size and anatomical location and GI function impairment or intensity of dyschezia and dysmenorrhea. Involvement of additional #Enzian compartment A and/or B has a significant impact on the degree of dyspareunia in women with colorectal DE.

**ABST-0155 -  
Free Communication**

**Should a transvaginal scan, performed by experts, be done after or before recurrent implantation failure (RIF)?**

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**Background**

Recurrent implantation failure (RIF), after single embryo transfer (ET) of good quality embryos, is very distressing for couples and frustrating for their clinicians. There are several causes of pelvic pathology that can cause RIF such as deep infiltrating endometriosis (DIE), adenomyosis, dysmorphic uterine cavity, hydrosalpinx and could be diagnosed and avoided by an accurate TVS done by experts. The main aim of this study is to evaluate the presence of undiagnosed pelvic diseases in patients after RIF by a TVS performed by experts.

**Methods**

This retrospective study analysed the TVS findings after RIF in infertile patients aged between 30 and 45 years who underwent IVF. IVF was performed in different European centre and all patients included had RIF after a single ET at blastocyst stage of an euploid blastocyst (PGT-A) or a blastocyst from oocyte donation. All scan, by 2D, 3D and power Doppler TVS, were performed by a single gynaecologist, expert in TVS between June 2018 and December 2023

**Results**

132 patients met criteria of inclusion with a mean age of  $40.5 \pm 5.4$  years, of these 98 had primary infertility, 88 had ET with PGT-A and 20 had oocyte donation IVF and 24 performed both.

TVS after RIF revealed a normal pelvic scan in only 17%. A significant difference was observed through the already known abnormal TVS group before IVF (Group A) and the new diagnosis after RIF (Group B) (25% vs 83%,  $p < 0.0001$ ). We divided the pelvic pathologies known before IVF and seen after RIF at TVS in 3 groups: uterine abnormalities (before 20% vs after RIF at TVS 69%,  $p < 0.001$ ), adnexal lesions (10% vs 30%,  $p = 0.001$ ), presence of DIE (4% vs 39%,  $p < 0.001$ ). Regarding the uterine abnormality the following differences between the two groups were observed: adenomyosis (8% vs 52%,  $p < 0.001$ ); myomas (17% vs 22%,  $p = 0.31$ ); dysmorphic uteri (0.7% vs 11%,  $p = 0.0004$ ), subseptal uteri (0% vs 5%,  $p = 0.009$ ), isthmocele (0% vs 0.7%,  $p = 0.34$ ). Concerning adnexa abnormalities, a significant difference was observed for both hydrosalpinx (0% vs 9%,  $p = 0.0004$ ) and endometriomas (10% vs 24%,  $p = 0.003$ ).

Interestingly, we analysed the association between adenomyosis and endometriosis in the group B and we observed that the presence of endometriosis in the RIF group is not significant when adenomyosis is present (30% vs 21%  $p = 0.09$ ).

17 patients (13%) known to have endometriosis, 36 (27%) has been treated surgically for endometriomas but do not know to be affected by DIE and concomitant adenomyosis.

**Conclusions**

TVS performed with high level expertise, indicated in RIF patients, could contribute to a new diagnosis of pelvic organic disease which could potentially be treated and change the destiny of ET. This study highlights the importance of a TVS performed by experts to treat undiagnosed pelvic disease before the first ET.

## Evaluation of Performance for AI-Powered Assistance System in Pelvic Lymph Node Dissection

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### Background

In Pelvic lymph node dissection (PLND), avoiding certain complications is paramount. Among these, ureteral injury, obturator nerve injury and major vessel injury are notable concerns. Ureteral injury and obturator nerve injury, occurring in 0.5-1.5% and 0.2–5.7% of cases respectively, often results from misidentification of the organs and lack of confirmation. Similarly, major vessel injury, reported in 0.3-1.0% of laparoscopic procedures, poses significant risks. Mitigating these complications is crucial for ensuring high-quality surgical outcomes. Thus, this study aims to develop an AI-based pelvic lymph node dissection support system and evaluate the accuracy of the system in different organs and different surgical procedures.

### Methods

Using comprehensive image data from 263 cases of pelvic lymphadenectomy from a national multi-centre surgical database (111 gynaecology, 118 colorectal, 34 urology) consisting of 41 institutes, totalling 19,301 images (8341 gynaecology, 7643 colorectal, 3317 urology), we developed robust four organ recognition models (ureter, obturator nerve, external iliac artery/vein) using Feature Pyramid Networks (FPN) in diverse surgical procedures. In the performance evaluation test, the accuracy of each organ for each procedure was measured as Dice coefficient.

### Results

In the performance evaluation, Dice coefficients for ureters per procedure were 0.6347 for gynaecology, 0.6991 for colorectal, and 0.7359 for urology. For obturator nerves, Dice coefficients per procedure were 0.8017 for gynaecology, 0.8482 for colorectal, and 0.8354 for urology. External iliac artery Dice coefficients per procedure were 0.8366 for gynaecology, 0.8033 for colorectal, and 0.8793 for urology. Similarly, external iliac vein Dice coefficients per procedure were 0.8235 for gynaecology, 0.8751 for colorectal, and 0.8737 for urology.

	Ureter	Obturator nerve	External iliac artery	External iliac vein
Gynaecology	0.6347	0.8017	0.8366	0.8235
Colorectal	0.6991	0.8482	0.8033	0.8751
Urology	0.7359	0.8354	0.8793	0.8737

### Conclusions

The results of the Dice coefficient differed between organs and procedures. There was a trend towards lower values in organs with relatively low exposure. The fact that the ureters are often covered by tissue and only partly exposed may have caused their values to be lower. Interestingly,



although the number of study cases and data for gynaecologic surgery was higher than for the other procedures, the values were the lowest. Gynaecologic surgery differs from the other procedures in that it creates the space between the psoas muscle and the external iliac artery. This step would cause the organs to be visualized from different angles, which could be the reason for the lower values. The AI-based pelvic lymph node dissection support system is expected to assist surgeons performing pelvic lymph node dissection and reduce complications.

**ABST-0008 -  
Free Communication**

**Current modalities in the investigation of uterine contractility in the non-gravid uterus**

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**Background**

Habitually the non-gravid uterus undergoes dynamic physiological changes, sustains contractions, and demonstrates peristalsis. Clinically, uterine contractions are monitored with tocodynamometers, electromyography (EMG), and intrauterine pressure catheters during labour. In the research setting ultrasonography (USS), the ElectroUteroGraph (EUG) and magnetic resonance imaging (MRI) demonstrated effective means of analysing uterine contractility in non-gravid women. Furthermore, such modalities have been investigated as effective means of detecting hormonal changes and distinguishing the various stages of the menstrual cycle. Some evidence shows their potential application in detecting disease such as fibroids, adenomyosis and endometriosis. The aim of this systematic review was to assess and compare the efficacy of various modalities in investigating uterine contractility in the non-gravid uterus.

**Methods**

A comprehensive search strategy was carried out using the NICE Healthcare Databases Advanced Search (National Institute of Health and Clinical Excellence) of 4 databases between July 1948 and July 2023: Cochrane, Embase, Medline, and PubMed. The systematic review was prospectively registered with PROSPERO (CRD42022350302) and was performed in accordance with the PRISMA guidelines.

**Results**

The final twenty-three articles encompassed 896 women. The main direction of contractility remains mainly cervico-fundal in the follicular and periovulatory phase across all studies. Peristalsis becomes less identifiable on MRI as the cycle progresses from peri-ovulatory to menstrual and luteal phase. Contraction frequency shows increase from peri-ovulatory to menstrual phase when investigated with both MRI and TV-US. Increase in contraction amplitude was only identifiable from POP to LP using MRI and EUG. Changes in the menstrual cycle and the use of hormonal contraception as well as pathologies (fibroids, adenomyosis, endometriosis) impact directionality, contraction amplitude and frequency. The changes, identified in the physiological contractility of the uterus, could explain mechanisms behind infertility.

**Conclusions**

The EUG, cine MRI and TV-US all portray their ability in recording uterine contractility in the non-gravid uterus and their potential in identifying related pathological implications. The TV-US is heavily operator dependent, and the MRI is extensively interpreter dependent, time consuming and costly.

The EUG is currently in the research setting and shows promising results but larger scale, multi-centre cohort studies are required to show its validity. It is now evident that uterine contractility can explain uterine pathology. The next important step is to identify the most practical and cost-effective method in investigating uterine contractility in an objective and numerical way to identify such pathologies.

**Autoimmune disease developed after open sacrocolpopexy complicated with mesh erosion and inflammation**

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**Background**

Promontofixation or sacropexy is considered to be a gold standard for correction of expressed vaginal prolapse with apical defect for comparatively better anatomic and functional outcomes. However, urogynaecology polypropylene meshes are associated with dangerous complications including inflammation and infection, although they are rare. The significance of the extent of negative impact of such cases which deteriorate both the quality of life and medical condition of operated patients has attracted attention of professional communities and researchers. Recently, more and more publications have been devoted to foreign body reaction (FBR), system autoimmune disease (SAID) and autoinflammatory syndrome induced by adjuvants (ASIA) or “Shoenfeld’s syndrome” potentially triggered by implantation of synthetic materials.

**Methods**

**Case**

A 49-year-old woman(G3P3) was presented with vaginal contraction, severe vaginal pain, dyspareunia and vaginal bleeding. The patient underwent a laparotomic total hysterectomy with simultaneous sacrocolpopexy 15 years ago, followed by three vaginal surgeries prior to her first referral to our department. Based on joint pain, swelling and periodic fever developed over the years after the initial surgery she was diagnosed and managed as autoimmune disease and namely progressing rheumatoid arthritis. Since gynecologic examination was not possible because of pronounced painful sensations, vaginoscopy under anesthesia was performed primarily and vaginal mesh exposure was revealed. After counseling with the patient, it was decided to remove the mesh completely.

**Results**

**Surgery**

The video demonstrates excision of exposed sacrocolpopexy mesh. At first adheziolysis was performed followed by dissection of presacral and right lateral retroperitoneal spaces. The right ureter was identified and lateralized. Mesh itself was microporous by nature, surrounded by inflamed fatty tissue and absolutely free of connective tissue coating. It was totally extirpated with non-absorbable sutures placed to fix it. At the end of the operation ovarian remnant attached to the abdominal wall was also removed.

Postoperatively, the patient reported improvement of her arthritis symptoms. Further follow-up together with rheumatologists was recommended.

**Conclusions**

On the one hand, the link between spectrum of immune-mediated diseases and polypropylene meshes has not yet proven by strong evidence and published reports regarding this issue are confronting. On the other, these type of complications are attributed to vaginally installed synthetic materials, the properties of meshes used for laparoscopic correction, as well as opening of vagina should not be neglected keeping in mind the consequences of their contamination.

<https://player.vimeo.com/video/968927181?autoplay=1>

**ABST-0769 -  
Free Communication**

**A rare case: perforation of a gravid uterus during laparoscopy**

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**Background**

The necessity for abdominal surgery during pregnancy that is not related to the obstetric reasons occurs in 1–2% of observations (Post RJ et al. 2019, Tolcher MC et al. 2018). Damaging gravid uterus during laparoscopy is potentially preventable complication (Buser KB. 2009, Mala T et al. 2014). Pregnancy prolongation after uterine perforation is associated with high perinatal risks (Joumblat N et al. 2012, Friedman JD. et al. 2002). Purpose. Presenting a clinical observation of gravid uterus perforation during laparoscopy.

**Methods**

28 weeks pregnant patient with an acute calculous cholecystitis

**Results**

Patient was urgently hospitalized in a multidisciplinary clinic with a diagnosis: Acute calculous cholecystitis. Surgeon mistakenly determined the gestational age to be 21-22 weeks. Patient was not examined by a gynaecologist before the operation. Light amniotic fluid, inner surface of uterus, foetus, umbilical cord, placenta, no active bleeding was visualized on the screen after the blind first trocar insertion. The gynaecologist was urgently called. According to the uterus size, prenatal records, menstruation data and the first ultrasound data, gestational age was 27-28 weeks. Inserted trocar was located in the middle between umbilicus and xiphoid process - with uterine fundus perforation. Laparoscopy was stopped. An upper midline laparotomy was performed, and a suture was placed on the 8-10 mm long uterine wall defect. Then the surgeon performed a cholecystectomy without complications. Ultrasound monitoring over time did not reveal any foetus and placenta abnormalities. Patient was discharged from the hospital on the 7th day and pregnancy continued. At 32 weeks, there was an urgent hospitalization due to the premature abruption of a normally located placenta, a caesarean section was performed, a live foetus was extracted in a state of asphyxia, with Apgar score of 2-3 points. Intraoperatively a total placental abruption was revealed. The child died on the 5th day, due to respiratory distress syndrome, ischemic-hypoxic brain damage and intraventricular haemorrhages. Postoperative period was unremarkable. Woman was discharged on the 7th day.

**Conclusions**

Conclusion. Surgeon's wrong determination of the gestational age led to an incorrect choice of the first puncture point, uterus injury and delayed pregnancy complications. Important safety factors for laparoscopy during pregnancy are anterior abdominal wall's local anaesthesia during the first trocar insertion and displacement of an insertion point of the first trocar up to the hypochondrium. The use of open Hasson technique and ultrasound examination before surgery with marking of the uterine fundus prevents uterus injury. Pregnancy prolongation after uterine perforation at 27–28 weeks is possible with timely diagnosis of complications, careful restoration of the uterine integrity and rational management of postoperative period.



**ABST-0728 -  
Free Communication**

**External validation of ultrasound-based prediction models for discrimination between benign and malignant adnexal masses in Italy: iota phase 6 study**

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**Background**

To prospectively evaluate the performance of RMI, simple rules risk model, adnex, and the iota two-step approach to estimate the risk of malignancy in different types of ultrasound centres in Italy.

**Methods**

This is a multicentre prospective observational study including a mix of regional referral centres and district Italian hospitals. Consecutive patients with an adnexal mass examined with ultrasound by an iota certified ultrasound examiner (different levels of experience) were included. Discrimination (area under receiver operating characteristic curve, auROC), calibration, and clinical utility were assessed to illustrate the ability of the four methods to discriminate between benign and malignant adnexal masses.

**Results**

1431 patients were included from 21 Italian centres (12 oncological and 9 non-oncological). The outcome was benign for 995 (69.5%) patients and malignant for 436 (30.5%). The overall auROC was 0.93 for adnex with ca125, the two-step strategy with ca125, and srrisk, 0.92 for adnex without ca125 and the two-step strategy without ca125, and 0.87 for rmi. calibration was best for srrisk. RMI had the lowest utility to select patients for referral to a gynaecological oncology centre. The other methods had similar utility for risk thresholds up to 0.2, for higher thresholds srrisk had slightly higher utility. subjective assessment had an overall sensitivity of 0.93 and specificity of 0.87. for subgroups based on menopausal status, type of centre (oncology vs non-oncology), and examiner experience, RMI had auROCs between 0.84 and 0.90 whereas all other models had auROCs between 0.90 and 0.96.

**Conclusions**

two step strategy with or without ca125, adnex with or without ca125 and srrisk had similar performance to distinguish benign from malignant adnexal tumours in patients examined by both expert and non-expert operators.



**Laparoscopic management of caesarean scar pregnancy: A ten-steps approach**

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**Background**

Caesarean scar pregnancy is a rare form of ectopic foetal implantation with increasing incidence over recent years. The laparoscopic approach is reported more often to effectively treat this pathology, claiming high success and minimal complication rates.

**Methods**

We present a teaching video demonstrating a systematic approach to the laparoscopic management of caesarean scar pregnancy divided in 10 steps: 1) Inspection of pelvis 2) Dissection of the Urinary bladder 3) Dissection and temporary clipping of the uterine arteries 4) Injection of diluted vasopressin 5) Opening of thinned myometrium over the pregnancy sac 6) Evacuation of conception products from pregnancy site 7) Excision of Niche scar tissue 8) Evacuation of uterine cavity 9) Suturing of uterine defects in two layers 10) Removal of clips from uterine arteries

**Results**

The systematic approach provides a safe and effective technique for managing this pathologic entity. Moreover, the main advantage is the ability to treat caesarean scar pregnancy, remove the uterine isthmocele, and reconstruct the lower uterine segment simultaneously.

**Conclusions**

Standardizing laparoscopic treatment of caesarean scar pregnancy could make this procedure safer and easily reproducible. The 10 steps proposed in a logical sequence may shorten the surgery's learning curve and reduce possible complications.

<https://player.vimeo.com/video/951392682?autoplay=1>

**ABST-0569 -  
Free Communication**

**Robot-assisted vesico-vaginal fistula repair with a pre-vesical peritoneum flap**

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**Background**

We present a video of robot-assisted laparoscopic repair of a vesico-vaginal fistula (VVF), developed after vaginal delivery with obstructed labour.

**Methods**

Pre-operative cystoscopy was performed: we identified the fistulous tract orifice of approximately 1.5cm in the postero-inferior bladder wall, at the midline of the pre-trigonal region. Ureteral catheters were placed bilaterally, and the ureters were contrasted with indocyanine green. The vaginal orifice of the VVF was allocated at the upper third of anterior vaginal wall and a Foley catheter was inserted in the fistula. With robotic-assisted approach we performed dissection of vesico-vaginal space until the fistula was visible, with detachment of bladder from the vaginal wall beyond distal margin of the fistula; then the Foley was removed, and fistulous tract was excised. The bladder was closed with a double-layer suture and the bladder integrity test was negative for leakage. At this time, we created a pre-vesical peritoneum flap that was interposed to protect the bladder suture. The ureters were stented cystoscopically. Through vaginal approach the margins of the fistula were removed, and the vaginal wall was sutured.

**Results**

No intra- and post-operative complications were recorded. Catheter was removed 18 days after surgery, after cystography assessment. Ureteral stents were removed 2 months after surgery. No fistula recurrence was reported during follow-up.

**Conclusions**

Minimally invasive approaches, particularly robot-assisted laparoscopy, have demonstrated shorter operative times and decreased blood loss without increased adverse events in the treatment of VVF. The use of interposition flaps has been considered important surgical steps for successful VVF repair. Various interposition flaps have been described in literature: the most common are omental flaps, followed by sigmoid epiploicae flaps. We used a pre-vesical peritoneum flap: it's located near the fistula site and, in our opinion, could guarantee good surgical outcome, reducing operative times and surgical complications.

<https://player.vimeo.com/video/951254366?autoplay=1>

**ABST-0562 -  
Free Communication**

**#Enzian classification in adolescents (12-20 years old): ultrasound (US) diagnosis and follow up**

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**Background**

To assess endometriosis in adolescents with #Enzian classification and to evaluate the developments of symptoms and disease in a follow up period more than 12 months. All adolescents at an initial ultrasound (US) scan were not previous treatment or surgery.

**Methods**

In this retrospective study, adolescents (12-20 years old) referred to our Gynaecological Ultrasound Unit between January 2020 and May 2024 with not invasive US diagnosis of endometriosis were included. At first evaluation, all included patients had no previous surgery or any medical treatment. All adolescents, after first scan, underwent continuous hormone therapy that induced amenorrhea and clinical and ultrasound examinations was performed at baseline every 6-8 months classifying the disease at follow up scans according to the #Enzian classification (compartments A, B, C, O, T, FA, FB, FI, FU, FO).

**Results**

70 adolescents with ultrasound signs of endometriosis were included in our study. Symptoms and US #Enzian compartments were evaluated at baseline, 12, 24 and 36 months. The mean follow-up period was of  $24.8 \pm 27.8$  months. During medical treatment that induced amenorrhea, dysmenorrhea and heavy menstrual bleeding (HMB) were no longer detected and chronic pelvic pain was significantly reduced as early as the first 12-month follow-up as well as dyspareunia. Of the 70 adolescents with endometriosis, ovarian endometrioma was found in 17 girls (24.2%), of which 10 (14.2%) as isolated endometrioma. Adenomyosis was detected in 32 (45.7%) patients, and 13 (18.6%) showed its isolated findings. Posterior deep infiltrating endometriosis (DIE) was found in 46 (65.7%) patients, and uterosacral ligament (USL) fibrotic thickening was found in 37 (52.8%) and among these, in 29 (41.4%) adolescents the USL lesion was completely isolated. Concerning #Enzian classification, adolescents with O compartment involvement were 24.2 % (17/70) at baseline and bilateral O was seen 7.1% of patients (5/70) for a total of 22 endometriomas. Among them at baseline we had 7/70 (10%) O1, 15/70 (21.4%) O2, whereas no O3 lesions were detected. Already after 12 months we observed a decrease in the number of O2 and a slight increase in O1 due to the reduction in endometrioma size, and at 36 months of follow-up we saw no endometriomas in 68.1% (15/22) of cases (O0). Moreover, FA, B and C did not show changes in #Enzian compartments during hormonal treatment resulting in absents of development of the disease but not a decrease.

## **Conclusions**

We observed in adolescents undergoing medical treatment that induced amenorrhea, changes in O compartment whereas others compartment remained unchanged. Thus, confirming that medical treatment reduced the progression of the disease. #Enzian score in adolescents had the advantages to follow pelvic endometriosis by US assessing the lesions not in single measurements but giving more objective and standardized development of the disease.

**ABST-0501 -  
Free Communication**

**vNOTES Assisted Vaginal Sacrocolpopexy**

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**Background**

Vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) is an advanced minimally invasive approach that allows laparoscopic access into the peritoneal cavity through the vagina. It has many benefits which include easy identification of the ureters, close proximity to the anatomy for pelvic floor support, faster recovery and less postoperative pain. However, there is very little literature available on its use in sacrocolpopexy.

**Methods**

A supracervical hysterectomy is first performed followed by sacrocolpopexy using vNOTES assistance.

**Results**

This procedure has successfully been performed on eight patients in our institution with great postoperative outcomes thus far within the past year. Patients have reported satisfaction with their procedure and with only one known postoperative complication to date.

**Conclusions**

Vaginal sacrocolpopexy using vNOTES assistance is a safe and reproducible procedure. Limited evidence exists regarding this technique. We are enthusiastic to add to this body of work, however, long term outcomes are still unknown, and more studies need to be performed to confirm the accuracy of our outcome.

<https://player.vimeo.com/video/949376637?autoplay=1>

**ABST-0446 -  
Free Communication**

**To MRI, or to ultrasound, that is the question. Deep endometriosis imaging results' comparison with intraoperative findings, a retrospective study from the UK Endometriosis Centre**

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**Background**

Endometriosis is a chronic inflammatory disease affecting 5-10% of women of reproductive age. Early diagnosis is the paramount of reproductive health and symptoms' management. Standardised protocols and technology improvement resulted in more accurate identification endometriosis using imaging, in particular transvaginal ultrasound (TVUS) and magnetic resonance imaging (MRI). The aim of our study was to compare the diagnostic accuracy of pre-operative TVUS and MRI for the detection of deep infiltrating endometriosis (DIE) using intraoperative surgical findings as a reference standard.

**Methods**

We searched our database to identify of patients with DIE who underwent laparoscopic surgery between 1.1.2020. until 31.12.2023 in a single tertiary endometriosis centre. All patients included in the study had pre-operative imaging: either TVUS, MRI or both. All scans were done by examiners with a high level of expertise in gynaecological imaging and they were expected to describe location and size of DIE lesions. All operating surgeons were experts in minimally invasive surgery with particular interest in treatment of endometriosis.

**Results**

We identified 110 DIE patients who satisfied the inclusion criteria. Among them 43/110 (39%) had only TVUS, 19/110 (17%) had only MRI and 48/110 (44%) had both tests. The diagnostic performance of MRI and TVUS was evaluated using AUC (Area Under The Curve) ROC (Receiver Operating Characteristics) metrics, and interpreted as follows: 0.7-0.8 acceptable, 0.8-0.9 good and >0.9 excellent result.

AUC was 0.94 MRI vs 0.95 TVUS for vesicouterine disease, 0.92 MRI vs 0.94 TVUS for ovarian endometriosis, 0.86 MRI vs 0.92 TVUS for uterosacral ligaments deposits, 0.81 MRI vs 0.90 TVUS for rectovaginal septum disease, and 0.95 MRI vs 0.93 TVUS for bowel deposits.

**Conclusions**

Transvaginal ultrasound is the first-line technique for the diagnosis of endometriosis and refers to the routine assessment of the uterus and adnexa and real-time evaluation of site-specific tenderness, ovarian mobility, pouch of Douglas (POD) obliteration and anterior and posterior compartment nodules<sup>1</sup>. MRI is a second-line examination technique for preoperative staging before surgery for predicting the diagnosis of multiple sites of DIE in the case of equivocal TVUS or in a symptomatic patient with negative TVUS findings<sup>2</sup>. Precise diagnosis and mapping of DIE is essential for appropriate consenting, preoperative preparation and coordination of the appropriate surgical teams.

Our study demonstrated comparable performance of MRI and TVUS for the diagnosis of vesicouterine, ovarian and bowel endometriosis whilst TVUS was better for the diagnosis of posterior

compartment endometriosis. The study limitations were its retrospective nature and only a minority of patients underwent both TVUS and MRI.

**ABST-0431 -  
Free Communication**

**Laparoscopic surgery for deep infiltrating endometriosis with low-anterior resection**

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**Background**

The aim of this video is to present laparoscopic surgery for deep infiltrating endometriosis with low-anterior resection.

**Methods**

A patient was referred to our clinic with a diagnosis of deep infiltrating endometriosis. She has distal vaginal and anal pain, especially during menstruation. The magnetic resonance imaging showed an infiltrating endometriotic nodule on the rectosigmoid colon. The patients underwent laparoscopic surgery for deep infiltrating endometriosis with low anterior resection. The final pathology report revealed endometriosis in the rectosigmoid colon (involving muscularis propria and serosa), endometriotic nodule on the sacrouterine ligament, and sigmoid colon.

**Results**

As part of deep infiltrating endometriosis surgery, low anterior resection, colorectal anastomosis, bilateral salpingo-oophorectomy, and endometriotic lesion excision were performed. She was discharged without any grade 3 or 4 adverse events in the post-operative period.

**Conclusions**

Laparoscopic surgery for deep infiltrating endometriosis and colon resection is feasible in selected cases.

<https://player.vimeo.com/video/945957088?autoplay=1>



**ABST-0264 -  
Free Communication**

**The Levalap 1.0™ Post-Market Clinical Follow-up Study: Operator Experience and Impressions**

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**Background**

Over 13 million laparoscopic procedures are performed worldwide annually, a volume that is expected to continue to increase. Likewise, the rate of abdominal access-related complications will also continue to rise. The Levalap™ 1.0 (Core Access Surgical Technologies, Atlanta, GA, USA) was designed to promote safer, more stable, and more predictable abdominal access when using the Veress needle for insufflation. Among other benefits, it increases the distance between the access site and retroperitoneal vessels by >5 cm. The primary aim of this study was to document surgeon's experience and impressions during the first post-market clinical follow-up (PMCF) study of the device.

**Methods**

Prospective multicenter cohort study including women ≥18 y.o. undergoing a laparoscopic gyn procedure. *Exclusion criteria:* pregnancy, access site surgery within 10 days, abdominal hernia, contraindication to Veress needle or laparoscopy use, BMI >30 kg/m<sup>2</sup>, and inability/unwillingness to provide consent or verbal non-refusal. Surgeons recorded their impressions of the use of the device immediately following the end of the procedure using a uniform questionnaire.

**Results**

157 subjects were studied by 9 surgeons, each performing ≥5 cases (5-22 cases/surgeon); mean patient age: 43.6±14.4 yrs., and mean BMI: 24.8±3.8 kg/m<sup>2</sup>. Access site was 83.4% trans-umbilical, 15.3% peri-umbilical, and 1.2% other. In 96.8% of patients access was achieved at 1<sup>st</sup> attempt and in 99.4% within the first two attempts. In 98.7% of cases, surgeons found the device very easy/easy to use and in 59.2% they found the device helped create the pneumoperitoneum very easily/easily. The device increased (strongly agree/agree) confidence (68.1% of cases), increased access control (66.9%), and improved access efficiency (66.2%). In 77.7% of cases surgeons felt they would recommend the use of the device to fellow surgeons. A median number of 5 (5-20) cases was needed to feel experienced with the device and a median of 10 (3-20) cases to determine the added value of the device. Surgeons felt that the device positively did or maybe did benefit access in 87.9% of procedures.

## **Conclusions**

The results of this PMCF study indicate that the use of the LevaLap™ 1.0 was associated with achieving abdominal access within the first two attempts in almost all patients, and with improved surgeon confidence, access control, and access efficiency in the majority. In most procedures surgeons found the device easy to use and made creating the pneumoperitoneum easier. Surgeons noted they would recommend the device to other surgeons in two-thirds of cases. Overall, use of the LevaLap™ 1.0 to promote a safer, and more stable and predictable abdominal access when using the Veress needle for insufflation during laparoscopic surgery was found to be well accepted and to improve surgical efficiency and comfort in the majority of patients in whom the device was used.

**ABST-0253 -  
Free Communication**

**Principles of safe laparoscopy during advanced pregnancy: a didactic video**

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**Background**

The management of ovarian torsion in pregnancy is similar to that in nonpregnant women, relying on appropriate diagnosis and surgical treatment. While laparoscopy is generally safe during pregnancy, advanced gestational age presents challenges due to uterine size. Here, we propose 8 steps for safer laparoscopy in late pregnancy.

**Methods**

The video demonstrates the case of a 29-year-old nulliparous woman at 30 weeks gestation admitted for acute abdominal pain. Imaging revealed a pelvic mass suggestive of left ovarian enlargement with areas of necrosis. Subsequent computed tomography (CT) confirmed a 9cm left adnexal mass with signs of ovarian infarction, prompting urgent surgical intervention. Laparoscopy confirmed left ovarian torsion, leading to ipsilateral adnexectomy without complications. Ultimately, the patient delivered a healthy child at term.

**Results**

We suggest the following key points for safe laparoscopy during advanced pregnancy :

- Preoperative marking of the upper uterine limit using ultrasound guidance;
- Administration of antibiotic prophylaxis and positioning the patient in the left lateral decubitus position;
- Adoption of a supra-umbilical open-laparoscopy approach for initial entry, guided by ultrasound, with an initial intraabdominal pressure of 12mmHg, then reduced to 10 mmHg if the surgical field is well exposed;
- Utilization of atraumatic trocars, with meticulous attention to instrument insertion under clear endoscopic vision;
- Continuous monitoring of expired CO2 levels by the anaesthetic team throughout the procedure;
- Consideration of vessel sealers to limit the number of instrument introductions;
- Limitation of uterine manipulation;
- Foetal monitoring before and after surgery;
- Prophylactic tocolytics or glucocorticoids lack evidence unless for specific obstetrical indications.

**Conclusions**

Ovarian torsion in pregnancy, though rare, justifies laparoscopic intervention for reduced morbidity and faster recovery. Late-stage pregnancy requires meticulous technique. In such cases, laparoscopy should be performed with numerous precautions by experienced surgeon and staff members, adhering to each step of the previously outlined key points.

<https://player.vimeo.com/video/945690806?autoplay=1>

**ABST-0249 -  
Free Communication**

**Green means 'stop' – using ICG to delineate the uterine cavity during robotic myomectomy**

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**Background**

To demonstrate the use of indocyanine green (ICG) with near-infrared light (NIR) during robotic myomectomy to avoid breaching the uterine cavity.

**Methods**

Fibroids are the most common occurring tumour of the uterus, with the majority being benign. Symptoms can range from abnormal uterine bleeding, subfertility or pain/bloating/LUTS from mass effect. Uterus preserving surgical management, myomectomy, can be offered via an open or minimally invasive approach. Although evidence is mixed, breaching the cavity may have fertility implications and increase the likelihood of intrauterine adhesions<sup>1</sup>. Therefore, care should be taken to ensure the cavity is not breached. Methylene blue can be used but may be less advantageous as it would highlight if the breach occurred, rather than preventing it. ICG with NIR can be useful in several scenarios but is particularly useful in delineating a luminal structure.

**Results**

The patient was a thirty-six-year-old P0 with significant mass effect and abnormal uterine bleeding symptoms with associated anaemia. MRI revealed multi-fibroid uterus the largest measuring 7cm.

The robotic-assisted procedure demonstrates concurrent endometriosis, different techniques to manage haemostasis, methods for specimen retrieval and robotic myomectomy. Fifteen fibroids were removed via multiple uterine incisions. The ICG has been used to clearly delineate the endometrial cavity and choose the dissection plane. This not only facilitated complete excision of the fibroids but also keeping the endometrial cavity intact during dissection and repair of the defect.

**Conclusions**

ICG with NIR can be utilised during myomectomy to help ensure the uterine cavity is not breached during myomectomy.

<https://player.vimeo.com/video/945759500?autoplay=1>

**ABST-0134 -  
Free Communication**

### **Initiating Robotic vNOTES: A Beginner's Guide**

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#### **Background**

Vaginal natural orifice transluminal endoscopic surgery (vNOTES) is associated with reduced pain and faster recovery compared to the conventional laparoscopy. However, it has limitations that include challenging triangulation, visualization that is caudal cephalic that requires learning curve and restricted instrumental length for challenging pathologies. The benefits of the robotic approach that include three-dimensional view, higher degrees of freedom for wrist instrumentation and self-control of the camera, can assist to overcome some of the challenges of vNOTES. In addition, it might expand the use of the vaginal minimally invasive surgery for more complex pathologies. The aim of this video is to demonstrate the essential steps and important tips for the beginner surgeon in robotic vaginal natural orifice transluminal surgery (vNOTES).

#### **Methods**

The first part of the video demonstrates the essential steps on a simulation model. The second part presents a 43-year-old woman, with a history of one caesarean delivery and one normal vaginal delivery, who presented due to heavy uterine bleeding caused by multiple fibroids. On pre-operative ultrasound, enlarged uterus estimated 14 weeks of gestation was observed with multiple fibroids up to 5 cm in maximal diameter. In addition, a 4.3 cm simple ovarian cyst was seen on the right ovary. The video demonstrates a step-by-step explanation of the combined technique.

#### **Results**

The patient was recommended surgical treatment and the approach chosen was robotic vaginal natural orifice transluminal endoscopic hysterectomy, bilateral salpingectomy and right ovarian cystectomy. The video demonstrates the application of the recommendations discussed on the simulation model, on a real case.

#### **Conclusions**

Robotic vNOTES is a feasible surgical approach that combines the advantages of both techniques and enables vaginal approach for complex pathologies under visualization.

<https://player.vimeo.com/video/945423308?autoplay=1>

**ABST-0116 -  
Free Communication**

**The effectiveness of laparoscopic mesh-less pectopexy in the treatment of apical vaginal prolapse**

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**Background**

Laparoscopic pectopexy is accepted as an alternative to sacrocolpopexy for the treatment of apical prolapse

Serious concerns regarding the complications associated with mesh insertion were stated, hence alternatives that do not use mesh are of great interest

**Methods**

We present a prospective cohort study. The setting is a tertiary center. All procedures were performed by the same team.

We performed and compared two techniques in terms of effectiveness in the correction of vaginal apical prolapse:

One procedure was laparoscopic pectopexy the standard technique using polypropylene mesh with the shape of inverted T, with lateral arm attached to the pectineal ligaments on both sides of the pelvis and the median arm attached to the vagina.

The other procedure was pectopexy without mesh, using a single thread of monofilament non absorbable suture that was passed through the pectineal ligament on one side then through the vagina then again through the pectineal ligament on the other side and knotted (video presenting the technique will be inserted in the presentation)

Concomitant cystocele was treated if present.

Patients were reevaluated at 6 months and 1 year.

The position of the vaginal apex was evaluated using the POP Q system. The vaginal axis after surgery was evaluated using the MRI.

The quality of life was assessed using Pelvic Floor Distress Inventory.

**Results**

60 patients were included. 30 patients had surgery using polypropylene mesh and the rest had surgery without mesh.

The results were similar in terms of prolapse cure and de novo symptoms. The correction of vaginal apex and the vaginal length obtained after both techniques were similar

**Conclusions**

Mesh less pectopexy can be an alternative to the standard technique, avoiding the complication related to mesh insertion

**ABST-0098 -  
Free Communication**

**The ASPIRE study: A prospective, multicentre, randomized trial on impact of adhesion prophylaxis with 4DryField during endometriosis resection on pain, fertility, and quality of life**

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**Background**

Post-operative adhesions are one of the major challenges in the surgical treatment of endometriosis. They are associated with postoperative pain and infertility. Although physical adhesion prevention has been shown to be effective in reducing adhesion scores in different studies, there is a considerable lack of knowledge about the benefits for patients. This is because clinical trials on adhesion prevention rarely include follow-up investigations beyond a second surgery to collect information on fertility, pain development or postoperative quality of life (Ahmad et al Cochrane Database Syst Rev. 2020 Mar 22;3(3):CD000475). The ASPIRE (Adhesion Suppression for Pain and Infertility Reduction after Endometriosis surgery) study aims to fill this gap by considering current recommendations for the selection of core statements based on clinical trials on endometriosis, incorporation of meaningful endpoints (Duffy et al. BJOG. 2020;127(8):967-74), and inclusion of a comparatively large cohort of making it the largest randomized study on adhesion prophylaxis in endometriosis surgery with the primary endpoint of pain development. We chose 4DryField as the adhesion barrier for this approach because it not only showed high efficacy during 2nd look surgeries after endometriosis resection (Kraemer et al. Langenbecks Arch Surg. 2021;406(6):2133-43), but also promising first results regarding fertility and pain development. (Krämer et al. J Clin Med. 2023;12(10):3597)

**Methods**

This prospective, controlled, randomized, multicentre, double-blinded trial will enrol 394 patients with endometriosis. They will be treated either with 4DryField gel for adhesion prevention or irrigation with saline. Total follow-up period is one year, with additional follow-up points at 3 and 6 months. Inclusion criteria comprise a preoperative score  $\geq 5$  on the numeric rating scale (0–10) for total pain to provide a meaningful estimation of the postoperative outcome. Additional endpoints include pain by category (cycle-independent pelvic pain, dysmenorrhea, dyspareunia, dyschezia and dysuria), use of analgesics, quality of life using SF-36 and EHP5 questionnaires, pregnancy rate, development of endometrioma and endometrial recurrence, rate of patients with bowel obstruction and subjective patient satisfaction, as well as adhesion scores for those patients with re-intervention.

**Results**

This clinical trial is ongoing and the data available at the time of abstract preparation are promising. In addition to the study design and rationale, a preliminary evaluation of the data collected at the first two follow-up time points (immediately after surgery and after three months) will be presented.

**Conclusions**

The results of the study will finally shed some light on the question of the benefits endometriosis patients may have when being effectively treated for adhesion prevention.

**ABST-0095 -  
Free Communication**

**First results of a randomized controlled trial on intrauterine adhesion prevention with 4DryField® PH**

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**Background**

Any intrauterine procedure exposes patients to the risk of postoperative adhesions (Asherman's syndrome). Rates of up to 88% have been reported after septal resections, and intrauterine adhesiolysis surgery has a high recurrence rate. Asherman's syndrome can cause infertility and predispose to miscarriage. In addition, intrauterine adhesions can lead to obliteration of parts of the endometrial cavity, resulting in hematometra and severe lower abdominal pain. Therefore, there is a need for effective prophylaxis of postoperative adhesions in hysteroscopic surgery.

**Methods**

A controlled, randomized, bicentric clinical trial is currently ongoing, involving 118 patients undergoing hysteroscopic resection of adhesions, septa or myomas. The intervention group receives 4DryField PH gel for adhesion prevention, while the control group does not receive adhesion prevention treatment. As the incidence of adhesions is reported to be lower after myomectomy, patients will be stratified according to the type of intervention. The primary endpoint is adhesion formation quantified at second-look hysteroscopy using the American Fertility Society's established classification system for intrauterine adhesions. The study will include a one-year follow-up to evaluate fertility and development of dysmenorrhea.

**Results**

Initial results show great potential for this approach, with most patients being completely free of adhesions and good endometrial healing. A first systematic evaluation of the results obtained to date will be presented.

**Conclusions**

If the preliminary results are confirmed, 4DryField PH will be a valuable new option to prevent the formation of intrauterine adhesions, and subsequently preserve fertility and improve the patients' postoperative outcome.



### **Canopy Concept of Bladder Dissection in TLH with Ventrifixed Uterus**

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#### **Background**

With the increasing incidence of caesarean sections, more and more patients undergoing Total Laparoscopic Hysterectomy (TLH) exhibit significant adhesions in the anterior cul-de-sac, resulting in a totally ventrifixed uterus. This condition, where the uterus adheres completely to the anterior abdominal wall without a cleavage plane, resembles a stamp on an envelope. The cervix is often pulled up high behind the pubic symphysis, increasing the risk of bladder injuries. To address these challenges, we present a 3-step technique for performing TLH to simplify bladder dissection.

#### **Methods**

Our objective is to evaluate the efficacy of this technique in patients with a ventrifixed uterus, aiming to minimize bladder and ureteric injuries.

All patients with history of previous caesarean sections underwent TLH using the three step canopy technique.

We do not make any attempt to separate the uterus from the anterior abdominal wall; rather we start with our 3 step technique as follows:

1. Open the posterior leaf of the broad ligament widely to delineate the uterine vein and artery, which are coagulated and cut without disturbing the adherent bladder, or the adherent ventrifixed uterus.
2. Navigate through the avascular "cotton candy" uterovesical space beneath the ventrifixed uterus and overlying bladder canopy. A grasper is insinuated beneath this canopy to expose the contralateral uterine artery.
3. Open the posterior leaf of the broad ligament to coagulate and cut the contralateral uterine artery and vein in a similar manner, before any attempt to separate the bladder from the anterior abdominal wall. Once the bladder dissection is complete, the adhered uterine flap at the top is carefully cut.

#### **Results**

All patients successfully underwent TLH with reduced operative times and minimal blood loss, despite obliteration of the cul-de-sac from previous caesarean sections. No additional bleeding and bladder injury noted during bladder dissection.

## **Conclusions**

This Canopy Concept makes TLH feasible, safe, and straightforward, in cases with severely ventrified uterus.

<https://player.vimeo.com/video/969422985?autoplay=1>

**ABST-0706 -  
Free Communication**

**Investment in integrated gynaecological simulation will halt the decay of RCOG trainee surgical skills- the time is now or it is too late?**

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**Background**

There is a chronic deficiency in Royal College of Obstetrics and Gynaecology (RCOG) gynaecological training with only 50% of senior trainees reporting competency in advanced laparoscopy or general laparoscopic procedures. A study in 2021 by the British Society of Gynaecological Endoscopy affirmed this translates to new consultants feeling underconfident with their own surgical skills and ability to train others.

This study looked at the effect of an integrated RCOG curriculum matched laparoscopic training programme, with provision of a free take home laparoscopic trainer, on endoscopic time, smoothness, distance and speed of trainees over a 12-month period. Furthermore, a follow up questionnaire was sent one year post completion of the course to ascertain the programmes lasting effect.

**Methods**

Sixty trainees were selected with 20 per stream: basic, intermediate and advanced. The 12-month course was matched to the RCOG curriculum. At the first session, participants performed stratified exercises using the Inovus LapAR system which analysed 4 key aspects: time, speed, smoothness and distance travelled. Their performance was compared to the results upon completion of the course. Each participant was provided with a free Inovus laparoscopic trainer with relevant equipment and exercises.

All participants completed a non-validated questionnaire on laparoscopic knowledge, skills and trainee surgical confidence at the first session and on completion of the course. One year after completion, a follow-on questionnaire on the lasting effect on knowledge, skills and surgical confidence was sent to trainees for feedback.

**Results**

There was a statistical improvement ( $p < 0.005$ ) across every participants time, smoothness and speed of laparoscopic movements after completion of the course, with no change in distance. Upon completing the course, 100% of trainees felt the course improved their surgical skills, with 98% reporting their confidence in theatre soared. Every participant reported the free at home laparoscopic box trainer was the crucial change.

Twelve months on, 58 participants returned the non-validated 10 point questionnaire. 93% felt the course was responsible for a lasting improvement in surgical confidence with 81% reporting an

improvement in anatomy/surgical steps due to the theory sessions. Additionally, 75% of trainees reported weekly use of their box trainer, with 3.5% stated they used it daily. To improve RCOG trainee satisfaction, 96% felt that gynaecology needs to be prioritised with implementation of a cost neutral national mandatory simulation programme involving at home laparoscopic trainers.

### **Conclusions**

It is not too late to address the future of gynaecological operating in the UK. Robust integration of laparoscopic simulation allows the operative learning curve to still be reached and protects the future of gynaecology. Simple investment in simulation, as so well established by our European colleagues, enables trainees to upskill without resource barriers, improves their moral and ensures gynaecological surgical finesse does not continue to be eroded.

**ABST-0686 -  
Free Communication**

**Variations in Simulation & Training in Gynaecology and Obstetrics. A questionnaire-based study by the EBCOG and ESGE**

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**Background**

Simulation training forms a core component of training in contemporary Obstetrics and Gynaecology. A questionnaire-based study was jointly led by the European Board & College of Obstetrics and Gynaecology (EBCOG) and European Society for Gynaecological Endoscopy (ESGE), who are collaborating in the GESEA4EU European Project (<https://gesea.eu/gesea4eu-about2/>), to evaluate the current status of the simulation training programs in obstetrics and gynaecology across Europe.

**Methods**

A questionnaire was developed to gather information on access, availability and infrastructure of simulation training in Obstetrics and Gynaecology. It was sent to EBCOG accredited training centres and affiliated centres of both societies from September 2023 to May 2024. Data collected through the survey were analysed using descriptive statistics, including frequency distributions and percentages.

**Results**

Sixty-three responses from 15 countries were recorded, with nine countries providing more than one response. 71.4% offer a skill lab centre in Obstetrics and 61.9% in Gynaecology. Most of the respondents confirmed that a structured simulation program is offered for basic resuscitation (74.6%), vacuum-assisted vaginal delivery (79.4%), shoulder dystocia (77.8%), and breech delivery (77.8%). Fewer simulation platforms exist for caesarean section trainer (10.6%), perineal repair (41.3%), and emergency intrapartum hysterectomy (10.6%). Additionally, many of the centres offer simulation for laparoscopy, hysteroscopy, and for ultrasound.

**Conclusions**

While significant access to simulation is evident across Europe, areas of need were identified. Improving accessibility and quality of simulation training requires a multi-faceted and multi-level approach involving policymakers, healthcare providers, and educators.

**ABST-0648 -  
Free Communication**

**Could vNOTES hysterectomy become the new reference surgical route for benign pathologies?  
Assessment of the vNOTES technique.**

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**Background**

Vaginal hysterectomy (VH) and laparoscopic hysterectomy (LH) are the reference surgical techniques for benign gynaecological conditions requiring hysterectomy (HRT). Hysterectomy via vaginal natural orifice transluminal endoscopic surgery (vNOTES) is a relatively new but now well-established technique that overcomes the limitations of vaginal surgery by allowing visual control of the peritoneal cavity and the adnexa. The purpose of this study is to compare the vNOTES technique with vaginal hysterectomy and determine if it could emerge as a new efficient and innovative approach for hysterectomy.

**Methods**

This retrospective study examined 220 cases of hysterectomy performed by a single surgeon in two different hospitals, MontLégia in Liège and Centre Hospitalier du Bois de l'Abbaye in Seraing, from January first 2019, to January first 2023. One hundred and seven hysterectomies were performed using one of the standard techniques including vaginal hysterectomy (VH), laparoscopically assisted vaginal hysterectomy (LAVH) and abdominal hysterectomy (AH) while 113 hysterectomies were performed by vNOTES.

We retrospectively collected data from 220 medical files and performed a retrospective analysis to compare the surgical indication, operating time, uterus weight, intraoperative and postoperative complications, concomitant salpingectomy and/or oophorectomy, morcellation and hospital stay.

Patient-specific information including age, gestity, parity, body mass index (BMI) and pertinent surgical history were also documented.

**Results**

Initially, the surgeon performed HRT using one of the three classical surgical techniques: 87% comprised vaginal hysterectomy (VH), while 6.5% each constituted laparoscopically assisted vaginal hysterectomy (LAVH) and abdominal hysterectomy (AH). Since November 2021, the surgeon adopted a vNOTES-first approach, choosing the vNOTES technique in 100% of his hysterectomy procedures regardless of the operative indication. In the standard approach group, the mean operative time was notably shorter ( $p < 0,05$ ) compared to the vNOTES group (VNG), with respective durations of 39 minutes versus (vs) 48 minutes. The rate of salpingectomies was significantly higher ( $p < 0,001$ ) in the VNG with 98,2% compared with 79,5% in the standard group (SG). However, there was no significant difference in the rate of ovariectomies ( $p > 0,05$ ). There was no significant difference ( $p > 0,05$ ) regarding intraoperative complications (5 occurrences in SG vs 4 in VNG). There were 3 cases of readmission in both groups.

## **Conclusions**

This large cohort study, conducted by a single operator, is retrospective in nature and spans different time frames without a standardized operating protocol. However, despite the limitations of this study, vNOTES appears to be a safe and effective alternative to VH. It combines the benefits of both vaginal and laparoscopic approaches, offering enhanced visualization and a safer approach to the adnexa.

**Young surgeons' perspectives on surgical anatomy teaching: insights from a Delphi study**

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**Background**

Minimally invasive surgery has gained popularity in gynaecologic surgery over the last decades. With this, surgical training has inevitably changed, and new generations of surgeons have been faced with this paradigm shift. Current advances in technology, especially in minimally invasive surgery, as well as the rapidly changing surgical strategies pose a major challenge for the training of young surgeons. More focus on evolving technologies may result in a reduction in teaching hours and a possible decline in anatomy knowledge among medical professionals. The aim of this Delphi like survey was to provide a representative overview of the current perception of surgical anatomy training from young gynaecologic surgeon's point of view.

**Methods**

The participants were asked to vote using a binary Likert scale of 1 through 9 to express their degree of agreement with the statement (with 1 indicating strong disagreement and 9 strong agreement). Consensus was defined when  $\geq 70\%$  of the panellist agreed or strongly agreed with the item (7-9) and the average rating was  $\geq 7$ . Those statements for which 60% to 70% of the group either agreed or disagreed were reanalysed by the scientific committee and rephrased for the second round. Demographic information, knowledge, technology experience, attitudes, and perceptions about training were collected using an online self-administered questionnaire. A total of 48 questions and statements were formulated for the first round, divided into 2 categories. Data were analysed using descriptive and inferential statistics.

**Results**

There were 120 respondents to survey. The first questions provided a description of the participants. Young surgeons agreed that "the use of cadaveric models" should be considered the most effective training method (88%), followed by "the use of 3D anatomical models" (73%). The panel considered virtual reality as an effective learning method for surgical anatomy (88%) and agreed on the need for a unified nomenclature of surgical anatomy (93%). Participants agreed that both laparotomic and laparoscopic training are crucial in any surgical educational program (98%). Young surgeons considered vaginal surgery still relevant in surgical educational program (90%). Panel agreed with the importance of knowing basic robotic principles even though they were not considered crucial in surgical educational programs. Among participants, only 55% were satisfied with the education they received regarding surgical anatomy with 91% expressing the need for receiving more information regarding techniques, instruments, costs, and materials during your surgical.

**Conclusions**



The results of this Delphi survey underscore the critical need to integrate young surgeons' insights into the surgical anatomy teaching. By addressing their preferences and recognizing the continued relevance of various surgical techniques, educational programs can better equip new surgeons to meet the demands of contemporary gynaecologic surgery.

**ABST-0515 -  
Free Communication**

## **Hydroflotation and Ultrasound-Guided Technique for Safe Entry in Post-Hysterectomy vNOTES procedures**

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### **Background**

Vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) presents a significant advancement in minimally invasive gynaecological procedures, particularly for hysterectomy and adnexal surgeries. This approach offers benefits such as reduced postoperative pain, faster recovery times, and minimized scarring. However, post-hysterectomy cases pose challenges for transvaginal access to the peritoneal cavity due to potential severe pelvic adhesions involving bladder or rectum. To address these challenges and minimize the risk of injury during entry, we propose a novel technique utilizing hydro flotation (transvaginal pelvis instillation with saline) and continuous ultrasound guidance.

### **Methods**

We describe in this didactic video the step-by-step technique for safe access into the peritoneal cavity, which includes hydro flotation, vaginal cuff incision and dissection under ultrasound guidance.

### **Results**

We present the case of a 51-year-old menopausal woman referred for bilateral oophorectomy following the unexpected finding of a 1.5 cm low-grade uterine sarcoma (FIGO Ia) diagnosed post-total hysterectomy. The patient had comorbidities including obesity, cholecystectomy, robotic bypass and idiopathic chronic umbilical abscess. To mitigate risks associated with a transabdominal approach, such as extensive adhesiolysis and perioperative umbilical contamination, a vNOTES procedure was chosen. Follow-up at 9 months was uncomplicated for the patient.

### **Conclusions**

This video case demonstrates the safety and feasibility of using hydroflotation and continuous ultrasound guidance for the vNOTES entry in patients with a history of total hysterectomy.

<https://player.vimeo.com/video/950234078?autoplay=1>

**ABST-0476 -  
Free Communication**

**Use of indocyanine green in laparoscopic ureterolysis for deep pelvic endometriosis: looking to save the otherwise unsavable ureters.**

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**Background**

Surgery for deep endometriosis is challenging, with a high risk of major complications due to inflammation, vascularization, anatomical distortion, and subsequent alteration of surgical planes. The use of indocyanine green (ICG) has been shown to allow better visualization of anatomical structures, guiding the surgeon and significantly reducing the risk of intra or postoperative complications. The aim of this video is to demonstrate the utility of ICG in evaluating the ureteral pathway during laparoscopic pelvic surgery for deep infiltrating endometriosis, thus minimizing potential complications.

**Methods**

Video demonstration of the administration of ICG via intraureteral cystoscopy, describing a step-by-step technique of guided ureterolysis under laparoscopic infrared visualization of the ureters.

**Results**

To demonstrate through images the utility of ICG staining in ureterolysis surgery for deep pelvic endometriosis.

**Conclusions**

The use of ICG is a useful tool that has been shown to improve deep endometriosis surgery by enhancing visualization of pelvic organs in endometriotic lesions. Intraureteral ICG use before laparoscopic pelvic surgery allows for precise and real time ureter localization. A study revealed that without ICG, the complication rate in patients with endometriosis related hydronephrosis was 10%, with 5% requiring reoperation not only due to ureteral injury but also due to injuries to other structures secondary to dissection and opening of different planes. Furthermore, it has been demonstrated that by using ICG and avoiding extra steps, operative times are significantly reduced. Standardization of ICG use in teams performing minimally invasive surgery for endometriosis is necessary to conduct subsequent prospective studies in our population and confirm the utility of this technique.

<https://player.vimeo.com/video/945972236?autoplay=1>

### **Development of High Fidelity Robotic Pelvic Floor Surgical Model**

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#### **Background**

Performing minimally invasive, laparoscopic or robot assisted, sacrocolpopexy, pectopexy, paravaginal repair, and Burch colposuspension requires advanced laparoscopic suturing and dissection skills, as well as a deep understanding of pelvic retroperitoneal anatomy. Simulation-based learning offers an ideal platform for mastering these complex pelvic floor reconstruction procedures, facilitating the necessary practice to attain proficiency and enhance efficiency. This project aims to create a high-fidelity pelvic floor surgery and anatomical model, enhancing participants' dissection and suturing abilities while deepening their anatomical knowledge, thereby mitigating potential complications.

#### **Methods**

Here, we introduce a high-fidelity artificial urological system tailored for the realistic simulation of endourological procedures, enhanced by the capability for quantitative assessment of surgical performance. This system incorporates a physical organ model crafted through 3D printing and a two-step polymer molding process, utilizing human magnetic resonance defecography data to achieve anatomical precision of the pelvis bone, vascular structures, and vagina. It accurately replicates the female pelvis, capturing detailed anatomical shapes and vascular patterns. During surgical simulations, endoscopic videos are recorded and analysed to provide an objective assessment of surgical skills.

#### **Results**

The integration of 3D printing technology and casting processes has enabled the development of realistic surgical models that offer high-fidelity reproductions of pelvic floor structures. These models facilitate the training for procedures such as robotic sacrocolpopexy, colposuspension, and pectopexy, providing an invaluable resource for enhancing surgical skills.

#### **Conclusions**

This innovative model marks a significant advancement in simulation training for robotic and laparoscopic surgery. At present, there are no other customized, high-fidelity models that cater specifically to both retroperitoneal dissection and the suturing of mesh in various pelvic floor surgeries. Our simulation model accurately emulates the retroperitoneal dissection techniques used in robotic pelvic floor procedures. It serves as an essential tool for educational purposes and skills assessment, effectively bridging a critical gap in surgical training resources.

<https://player.vimeo.com/video/945943765?autoplay=1>

**ABST-0394 -  
Free Communication**

**The anatomy of the pelvic plexus in female cadavers: implications for retroperitoneal nerve-sparing surgery**

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**Background**

The inferior hypogastric plexus (IHP) is a crucial structure for female continence and sexual functioning. A nerve-sparing approach should be pursued to reduce the risk of pelvic plexus damage during retroperitoneal pelvic surgery. Our study aimed to analyse the relationship between the female IHP and several novel pelvic anatomical landmarks.

**Methods**

Standardized cadaveric dissection was performed on 5 nulliparous female cadavers. The mid-cervical plane (MCP) and the mid-sagittal plane (MSP) were two planes passing through the cervix and the sacrum, used as anatomical landmarks for the purpose of the study. The relationship of the IHP and the MCP, the MSP, and the uterosacral ligaments (USLs) were investigated by measuring the distances between these landmarks.

This study has been recently accepted for publication.

**Results**

Distances between the right IHP and the right MSP (mean distance: 16.3 mm; range: 10.0-22.5 mm) and the right USL (mean distance: 4.8 mm; range: 0-15.0 mm) were shorter than those between the left IHP and ipsilateral landmarks (left MSP distance: 23.5 mm; range: 18.0-30.0 mm; left USL distance: 5.0 mm; range: 0-20.0 mm). Although the MCP was 3.3 mm (range: 2.5-4.0 mm) left and lateral to the midsagittal line, the right IHP was closer to the MCP (mean distance: 19.6 mm; range: 13.0-25.0 mm) than the left one (mean distance: 20.2 mm; range: 15.0-26.0 mm).

**Conclusions**

Distances between the right IHP and the MSP, MCP, and ipsilateral USL, are shorter compared to these associated to the left IHP. The right autonomic pelvic plexus is closer to the midline planes and ipsilateral USL. These anatomical relationships may be greatly helpful for pelvic surgeon while facing retroperitoneal pelvic surgery and looking for a nerve-sparing approach.

**ABST-0280 -  
Free Communication**

**Treatment of severe and moderate intrauterine adhesions: results of the PREG2 international randomized trial on the efficacy of the first intrauterine mechanical barrier film, Womed Leaf™**

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**Background**

Hysteroscopic adhesiolysis is recommended for symptomatic patients presenting with intrauterine adhesions (IUA). However, the recurrence rate is as high as 60% in cases of severe IUA, while the efficacy of barrier gels in this indication has never been established.

Womed Leaf™ (Womed SAS, France) is a degradable polymer film (DPF) designed to be inserted into the uterine cavity like an IUD. The DPF expands to fill the entire cavity thus acting as a mechanical barrier between the uterine walls. After about a week, it degrades by hydrolysis and is discharged naturally through the cervix.

The aim of this study was to evaluate the efficacy of the DPF in preventing IUA recurrence after hysteroscopic adhesiolysis of severe and moderate IUA, by comparing it with adhesiolysis without adhesion barrier.

**Methods**

PREG2 (NCT04963179) is a prospective, multicentre, international, randomized, controlled, stratified, double-blind study. Women with moderate or severe IUA (AFS score  $\geq 5$ ) confirmed by hysteroscopy, were eligible to participate in the study. Following adhesiolysis, patients were randomized to either have a Womed Leaf film inserted or not. Hormonal treatment was authorized in both groups if it was the site's standard management.

Patients were scheduled for second-look hysteroscopy (SLH) after 4 to 8 weeks. The primary effectiveness endpoint was the change in IUA severity, defined as the difference between the pre-operative and second-look AFS scores. The key secondary endpoint was the responder rate, measured as the percentage of patients with improved IUA status of at least two clinical categories, e.g. from severe to mild or from moderate to no IUA. The patient and the second-look evaluator were blind to the treatment group.

**Results**

160 patients were randomized between November 2021 and September 2023, in 16 sites from 7 countries in Europe and China. None of the reported adverse events (9) were serious or considered related to the device. Post-operative AFS score was available for 153 women. Mean baseline AFS score was 8 in both groups. The reduction in AFS score at SLH was significantly higher in the intervention compared to the control group ( $5.2 \pm 2.8$  vs.  $4.2 \pm 3.2$ ;  $p=0.0153$ ). The responder rate

was significantly higher in the intervention group (51% vs 29% OR 2.7 [1.4–5.5];  $p=0.0052$ ). The absence of adhesions at SLH was significantly higher in the intervention group (41% vs 24% OR 2.44 [CI 1.161 - 5.116];  $p=0.0189$ ).

### **Conclusions**

This large, randomised control trial demonstrated the effectiveness of Womed Leaf in the management of symptomatic severe or moderate intrauterine adhesions, by significantly reducing their severity and occurrence. It is the first adhesion barrier to show any clinically meaningful improvement in this challenging indication.

**ABST-0262 -  
Free Communication**

**vNOTES robotic endometrial cancer staging surgery with da vinci xi system**

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**Background**

With the growing preference for minimally invasive surgery among patients recently, vNOTES (vaginal natural orifice transluminal endoscopic surgery) has emerged as an actively pursued approach across various diseases. Specifically, several studies have been published regarding staging operation in patients with early endometrial cancer. Motivated by the potential for increased surgical precision through the integration of robotic technology with vNOTES, we embarked on vNotes robotic surgery.

**Methods**

This study describes a case of vNOTES endometrial cancer staging operation conducted at Seoul St. Mary's Hospital. The patient, a 48-year-old, was diagnosed with stage IA endometrial cancer. Da Vinci Xi robotic system was utilized. The surgical procedure is as follows. First, posterior culdotomy was performed, followed by insertion of the Alexis wound retractor/protector, and injection of ICG into the uterine cervix. Subsequently, the paracervix was excised, and anterior peritoneal opening was created. Structures were dissected from the cervix towards the uterine fundus, ligated, and cut. After hysterectomy, retroperitoneal approach was used for pelvic lymph node dissection.

**Results**

Hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymph node dissection were performed successfully. The operation time was 3 hours and 10 minutes, without surgical complications, and the patient was discharged the day after surgery.

**Conclusions**

The integration of a robotic system into vNOTES procedures notably enhanced the ease of surgery, particularly in lymph node dissection. Based on future cases of vNOTES robotic surgery, it is anticipated that more extensive research will be needed, not only focusing on surgical outcomes but also on long-term survival outcomes.

<https://player.vimeo.com/video/945793748?autoplay=1>



**ABST-0072 -  
Free Communication**

**Surgery or IVF for diagnosed ovarian endometriosis and deep infiltrative endometriosis?**

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**Background**

One of the most severe and aggressive manifestations of endometriosis is deep infiltrative endometriosis (DIE). Endometriosis is a socially significant disease that reduces a woman's quality of life and affects reproductive health. Women with endometriosis often experience severe menstrual and non-menstrual pain affecting the lower abdomen, pelvis or lumbosacral region, profound dyspareunia, dyschezia and dysuria and infertility in 30–50% of cases.

**Methods**

Every year, more than 6,000 in vitro fertilization (IVF) programs are registered in our institute. According to the study, among them, 38% of women were diagnosed with endometrioid cysts and 21% with DIE.

The study on included 450 women with DIE in combination with infertility. All patients were divided into 4 groups:

Group 1 – 128 patients with DIE, sent for IVF without surgery.

Group 2 – 297 patients with DIE, initially referred for surgery:

Group 2a – 156 patients with ovarian cysts, sent for preliminary collection of eggs before surgery.

Group 2c – 141 patients with ovarian cysts, referred for surgery without prior egg retrieval.

**Results**

In group 1, the number of pregnancies occurred was 65.6% (84 women), in group 2a - 71.7% (112 women), in group 2 - 53.9% (76 women). Pregnancy occurred spontaneously in 18 (4.2%) women from group 2 after surgery.

In terms of pregnancy, IVF with preliminary surgery (Me: 2.10; Q1-Q-3:0) had a statistically significant advantage compared to IVF without surgery (Me: 5.00; Q1-Q-3:0), and IVF with surgery without egg retrieval (Me:3.0; Q1-Q-3:0). The lowest statistically significant pregnancy rate was recorded during laparoscopic surgery without prior egg retrieval (Me: 6.95; Q1-Q-3:1).

When performing a post-hoc analysis, a statistically significant shorter pregnancy time was also found when performing IVF with preliminary laparoscopy and egg freezing: group 1 (M: 126.25; SD111.1), group 2a (M: 79.97; SD: 19.785), group 2c (M: 130.50; SD: 82.149) (p=0.000).

During the period of observation of women for twelve years after surgery, 93% of patients noted an improvement in the quality of life and 63.7% of women on average achieved reproductive function after the IVF program for endometriosis.

## **Conclusions**

Laparoscopic excision of deep infiltrative endometriosis with shaving or resection of the rectum has a positive effect on the reproductive function of women and significantly improves the quality of life. The results of the IVF program for deep infiltrative endometriosis are statistically higher after surgery, but with preliminary cryopreservation of oocytes. At the same time, the question of radical resection of the rectum in comparison with shaving when planning an IVF program remains open, which forms the planning of further research in this area.

**ABST-0012 -  
Free Communication**

**Transcervical Fibroid Ablation (TFA): Pregnancy Outcomes**

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**Background**

This is a retrospective multicentre case series to examine pregnancy outcomes in women conceiving after transcervical fibroid ablation (TFA) for symptomatic uterine fibroids.

**Methods**

TFA was used to ablate fibroids, both under clinical trial protocol and commercial usage at clinical sites in continental Europe, the UK, Mexico and the US.

**Results**

Eighty-nine pregnancies and 55 deliveries among 72 women treated with TFA for their symptomatic fibroids have been identified since the first such procedure in June 2011. Eight women have become pregnant more than once after TFA with the Sonata System; 10 pregnancies are ongoing, and 11 women conceived as the result of ART. Twenty-six women who conceived were nulligravidae. Outcomes include 19 vaginal deliveries, 35 Caesarean sections, 5 therapeutic abortions, 1 ectopic pregnancy and 1 delivery by unknown route. Ten women experienced 18 first-trimester spontaneous abortions (SABs), with 10 of the 18 SABs (55.6%) occurring between two patients with a history of recurrent abortion. The SAB rate was 22.8%, inclusive of these two patients. Mean birthweight was  $3276.7 \pm 587.3$  grams. There were no instances of uterine rupture, placenta accreta spectrum or stillbirth.

**Conclusions**

This case series, the largest to date for any hyperthermic ablation modality, suggests that conception and normal, term pregnancy outcomes can be realized after TFA with the Sonata System. There were no instances of uterine rupture, stillbirth, or placenta accreta spectrum, and the spontaneous abortion rate was lower than the background miscarriage rate.

**ABST-0517 -  
Free Communication**

**Transumbilical laparo-endoscopic single-site surgery and multi-port laparoscopic surgery for myomectomy: a retrospective cohort study of 3958 patients**

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**Background**

The aim of this study was to assess the feasibility and safety of laparo-endoscopic single site surgery for myomectomy (LESS-M) and its advantages and disadvantages compared with multi-port laparoscopic myomectomy (MPLM).

**Methods**

This retrospective cohort study included 3958 patients with uterine fibroids (1437 in LESS-M group, 2521 patients in MPLM group) at West China Second University Hospital, Sichuan University and seven patients who received MPLM at other medical centres from 2018 to 2022. Baseline characteristics of patients, intraoperative and postoperative parameters, pregnancy outcomes, prognosis after LESS-M or MPLM, etc. were collected and compared.

**Results**

The median follow-ups were 24.3 months and 26.5 months for LESS-M group and MPLM groups respectively. No significant difference was found in terms of blood loss (LESS-M 50 ml vs MPLM 50 ml,  $P=0.545$ ), the number of fibroids resected (LESS-M  $1.24\pm 0.66$  vs MPLM  $1.26\pm 0.80$ ,  $P=0.542$ ). LESS-M group maintained shorter hospital stay after surgery (LESS-M  $2.21\pm 1.18$  d vs MPLM  $2.70\pm 1.37$  d,  $P < 0.001$ ) and lower VAS score at 24h (LESS-M  $2.82\pm 0.58$  vs MPLM  $2.89\pm 0.63$ ,  $P < 0.001$ ). The satisfaction score of incision healing in LESS-M group was higher than that in MPLM group (LESS-M  $4.60\pm 0.62$  vs MPLM  $4.43\pm 0.66$ ,  $P < 0.001$ ). In addition, the risk and severity for abdominal and pelvic dissemination in patients with unsuspected malignancy was lower in LESS-M group than that in MPLM group.

**Conclusions**

Our research found out LESS-M exceeded MPLM in safer and more convenient sample extraction, better compliance of non-tumour principle, faster recovery, and more aesthetic incision healing.

**ABST-0296 -  
Free Communication**

**Endoscopic inguinal sentinel lymph node biopsy by an abdominal approach in women with early-stage vulvar squamous cell carcinoma**

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**Background**

To present a surgical technique of endoscopic inguinal sentinel lymph node biopsy (SLNB) by an abdominal approach for the early-stage vulvar cancer using indocyanine-green (ICG).

**Methods**

A 74-year-old woman with vulvar squamous cell carcinoma who underwent radical vulvectomy was treated with inguinal SLNB, which was performed via endoscopic surgery using ICG and near-infrared fluorescence mapping by an abdominal approach. The primary tumour was limited to the vulva, and there were no groin lymph nodes that were clinically suggestive of cancer. Histologic ultra staging of the SLNs was prescribed.

**Results**

Stage IB (T1bN0M0) vulvar low grade squamous cell carcinoma was identified. SLNs were detected and resected in the superficial inguinal area. Operative time for the endoscopic procedure was 35 minutes with estimated blood loss of 50 ml. Postoperative hospital stay was 6 days. No complications and recurrence were observed to now.

**Conclusions**

Endoscopic inguinal SLNB by this abdominal approach in patients with early-stage vulvar cancer is a feasible alternative to open approach.

<https://player.vimeo.com/video/946546150?autoplay=1>

**ABST-0269 -  
Free Communication**

## **Early Detection of Ovarian Cancer with a Novel Panel of Plasma Cell-Free DNA Methylation Markers**

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### **Background**

Ovarian cancer continues to be a major contributor to morbidity and mortality, primarily due to diagnoses at advanced stages, which result in unfavourable outcomes. Utilizing cell-free DNA (cfDNA) methylation profiles for non-invasive diagnosis has demonstrated promise in the field of gynaecological oncology. The objective of this study was to develop a liquid biopsy approach for the precise detection of ovarian cancer using epigenetic markers.

### **Methods**

The initial study plan comprises a modelling cohort and a validation cohort. The modelling cohort aims to enrol 90 patients for the collection of both malignant and benign ovarian tissues, along with normal fallopian tissues and blood samples. The completed tissue analysis within this cohort involves the examination of fresh-frozen tissues from patients with histologically confirmed ovarian cancer and benign ovarian conditions, including 33 malignant tumours, 33 benign lesions, and 33 normal fallopian samples. The PredicineEPIC™, a NGS-based genome-wide methylation assay, was utilized to explore methylation patterns associated with ovarian cancer. A set of differentially methylated regions (DMRs) was identified and used to develop and refine diagnostic models in the subsequent ongoing blood tests.

### **Results**

The tissue-based analysis identified 628 DMRs that exhibited distinct methylation patterns between ovarian cancer and both benign ovarian and normal fallopian samples (P-value < 0.001). Gene enrichment analysis revealed that these markers are associated with the biological process of homophilic cell adhesion, suggesting that dysregulation of cell-cell interactions contributes to cancer progression. Subsequent implementation in plasma cohort confirmed the utility of such markers in distinguishing ovarian cancer from benign conditions with high sensitivity and specificity.

### **Conclusions**

Our study presents a novel panel of plasma cfDNA methylation markers for the detection of ovarian cancer. The development of this non-invasive diagnostic approach holds promise for improving early detection and patient outcomes in ovarian cancer.

**R-LESS endometrial cancer comprehensive staging surgery with RV-level lymphadenectomy**

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**Background**

The utilization of minimally invasive surgery has experienced a significant spike in the field of gynaecologic oncology, particularly in the application of transumbilical laparo-endoscopic single-site surgery (TU-LESS). The feasibility, safety, minor parietal injuries and improved cosmetic outcomes with TU-LESS have been demonstrated. Nevertheless, certain challenges accompany it, particularly when this surgical method is being contemplated for more intricate operations. When performing para-aortic lymphadenectomy in cancer patients, TU-LESS encounters technical challenges such as instrument crowding and clashing, ergonomic difficulties, and image instability. These issues result in the inferior mesenteric artery or renal vein being more difficult to reach in order to complete the para-aortic lymphadenectomy. Several methods were employed to address the issue, such as the extraperitoneal approach, which increases the duration of the surgery and raises the level of complexity. The implementation of a robotic single-site platform presents a viable solution to address the constraints of LESS. The robotic platform effectively restores surgical triangulation and prevents instrument overcrowding. Hence, we provide a case where transumbilical laparo-endoscopic single-site surgery (TU-LESS) was performed using the Da Vinci Xi system to complete comprehensive staging surgery for endometrial cancer, including lymphadenectomy up to renal vein level intraperitoneally.

**Methods**

Robotic-assisted transumbilical laparo-endoscopic single-site surgery was performed on a 54-year-old patient with endometrial cancer. Da Vinci Xi system was selected. She complained about vaginal bleeding with a preoperative diagnosis of endometrial poorly differentiated carcinoma stage IIC. Hysterectomy, bilateral salpingo-oophorectomy, pelvic lymphadenectomy, para-abdominal aortic lymph node dissection and omentectomy were successfully performed through a single port applied in the three cm incision at the umbilicus. Lymph node resection reached the level of the renal vein.

**Results**

This surgery achieved an efficient and safe peri-operative outcome with excessive difficulty. The operative time was 325 min with 50 mL blood loss. The patient exhausted in 42 hours, and the duration of drainage was 6 days. The patient was discharged on day 6 after the surgery, and no complications occurred. Pathology examination prompted that cancer involved left adnexa and sigmoid colon nodules, but no lymph nodes were positive, which elevated the stage to IIIA1.

**Conclusions**

TU-LESS, assisted by the Da Vinci Xi system, has manifested feasibility and safety in patients with difficulty. In the process of para-aortic lymphadenectomy, the robotic single-site surgical system tackles the challenges related to limited space and restricted movement by providing enhanced visibility and improved depth perception. The implementation of the robotic surgical system has

mitigated the technical difficulties commonly encountered during transumbilical single-site surgery laparo-endoscopy by enhancing surgical dexterity, precision, and visualization.

<https://player.vimeo.com/video/945766764?autoplay=1>



**ABST-0218 -  
Free Communication**

**Transumbilical laparo-endoscopic single-site segmental rectal resection for deep infiltrating rectal endometriosis**

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**Background**

Deep infiltrating endometriosis (DIE) involving the bowels, especially invasion of the rectum or sigmoid colon, represents one of the most common subtypes of DIE. Symptoms caused by this disease, including constipation, pain, and hematochezia, can significantly affect patients' quality of life. Segmental resection becomes imperative when the endometriosis lesion extensively infiltrates the bowel, resulting in stenosis.

Multi-port laparoscopic surgery for bowel segmental resection usually requires an additional incision of at least 4-5 cm for specimen extraction, thereby increasing surgical trauma. Although the transanal approach is less invasive for bowel extraction, it may potentially raise the risks of abdominal infection, fistula, sphincter damage and other complications.

Hence, we present a novel approach with the advantages of minimal invasiveness and simplified specimen extraction for segmental bowel resection in a case of DIE through the transumbilical laparo-endoscopic single-site (TU-LESS) technique, hoping to provide a feasible and efficient surgical option for this disease.

**Methods**

A 31-year-old woman was diagnosed with DIE by MRI with extensively thickened rectal wall (6.0\*4.0\*1.5cm). The rectoscopy showed the rectal stenosis with a distance from the anal verge of approximately 12 cm. The rectal segmental resection was performed via TU-LESS. A multichannel single port was inserted through a 2-3 cm umbilical incision. The uterus was suspended to the anterior abdominal wall to expose the cul-de-sac. The sigmoid colon was clipped to the left pelvic wall to facilitate exposure of the right space for right-side rectal mobilization. The upper mobilized rectal segment was tied and pulled using a ribbon for dissection, ensuring a 2 cm (at least) margin below the endometriosis lesion. The rectum was transected with a flex-powered endoscopic linear cutter, and the proximal end of the bowel was pulled out through the single port for segmental resection. After resection, the proximal bowel with a negative margin was reinserted into the pelvic cavity. The remaining rectum and colon were anastomosed end-to-end with a circular powered stapler.

**Results**

The procedure was technically successful, with an operative duration (155 minutes) and minimal bleeding (5 ml). The patient was passed gas 58 hours and discharged on the fifth day after surgery, and no complications or recurrence were observed during the three-year follow-up period.

## **Conclusions**

TU-LESS bowel segmental resection for DIE is feasible and effective. This approach minimizes invasiveness, facilitates specimen extraction, reduce the risk of abdominal infection and improved cosmetic outcomes. TU-LESS is a promising technique for bowel resection in cases of DIE.

<https://player.vimeo.com/video/945638174?autoplay=1>

**ABST-0122 -  
Free Communication**

**Robotic TU-LESS Assisted Extracorporeal Approach for Fertility-Sparing Surgery of Early-Stage Ovarian Cancer**

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**Background**

Laparoscopic surgery be considered the ideal approach for ovarian cystectomy. However, tackling a large ovarian cyst through laparoscopic cystectomy poses several technical hurdles, like hard exposure and unintended cystic content spillage. Additionally, huge ovarian cysts may harbour malignancies, and the rupture is closely linked with decreased survival rates, peritonitis, adhesion formation, and subsequent infertility. We want to present an approach, which can be utilised for large ovarian cystectomy and staging surgery treatment, namely the robotic transumbilical single-site laparo-endoscopic assisted extracorporeal surgical pathway (R-LESS-Ext).

**Methods**

Single-port assisted extracorporeal cystectomy was conducted using a Robotic-single port device (Kangji Medical Inc., China), comprising a wound retractor and a detachable port cap with 4 access ports. Procedures were performed with the da Vinci Xi Surgical System (Intuitive Surgical Inc., USA). A wound retractor of the port was introduced into the peritoneal cavity to initiate the extracorporeal process. To prevent spillage of cystic contents, gauze was padded around the incision, and a purse-string suture was applied to the capsule under direct vision. Subsequently, the cyst was punctured, and its contents were rapidly aspirated using a suction tip. The deflated cyst was then extracted through the umbilical incision, followed by ovarian cystectomy. After suturing the ovary, it is placed in the abdominal cavity, the port cap is placed, and robot-assisted intraperitoneal surgery is performed after establishing pneumoperitoneum.

**Results**

Robot TU-LESS assisted extracorporeal surgery for huge ovarian cyst (24.4x13.9x30.0cm) was successfully performed without complications. The patient recovered quickly and received subsequent chemotherapy on schedule.

**Conclusions**

In our approach, the pivotal advantage of our surgical technique lies in its integration of extracorporeal and intracorporeal procedures. Cysts are aspirated extracorporeally, and once deflated, they are meticulously extracted through an umbilical incision, thereby minimizing the risk of cystic content spillage. The cystectomy procedure is performed outside the abdomen, while additional treatments such as fertility preservation are carried out using R-LESS. Moreover, the seamless transition between extracorporeal and intracorporeal phases is facilitated by the single-port system.

<https://player.vimeo.com/video/945393437?autoplay=1>

**ABST-0099 -  
Free Communication**

**Primary debulking surgery for advanced epithelial ovarian cancer with isolated enlarged para-aortic lymph node through robotic transumbilical single-port approach**

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**Background**

Since ovarian cancer is usually diagnosed at an advanced stage, accurate cancer staging and optimal cytoreduction are vital for prognosis prediction and adjuvant therapy. Recent studies suggest that robotic surgery is an alternative option to laparotomy for selected patients of advanced ovarian cancer without extensive dissemination (absence of ascites and carcinomatosis) intraperitoneally due to favourable perioperative outcomes and early onset chemotherapy without affecting survival rates. Besides, transumbilical single-port approach can reach an extensive operational field from the upper abdomen to deep pelvis and has potential benefits in safe tissue extraction. This video is to demonstrate the feasibility and safety of primary debulking surgery for selected advanced-stage epithelial ovarian cancer through transumbilical single-port approach using da Vinci Xi surgical system.

**Methods**

The patient had suspected ovarian cancer with gross lesions confined to the pelvis and an isolated enlarged para-aortic lymph node that considered to be metastasis. A 3-cm vertical umbilical incision was made for the entire surgery. After completion of the pelvic procedures, the da Vinci Xi system was dual-docked towards the upper abdominal cavity for para-aortic lymphadenectomy up to the renal vein.

**Results**

Satisfactory debulking was achieved with no macroscopic lesions under robotic enhanced amplification of view. The total operative time was 292 min with 100 mL blood loss, and the patient was discharged in postoperative day 4. No perioperative complications occurred.

**Conclusions**

Robotic transumbilical single-port approach is feasible and safe for selected patients with advanced ovarian cancer. It is simple and timesaving for dual docking of the Xi system to just rotate the arm beam without changing the cart's position or adding ports. The precise movement and improved visualization would help to resect metastatic lymph nodes that densely adhesive to the vascular wall without injury. Sufficient evaluation and extensive surgeon's experience are required before conducting such a complex procedure.

<https://player.vimeo.com/video/944865887?autoplay=1>

**ABST-0771 -  
Free Communication**

**Laparoscopic excision of round ligament endometriosis mimicking inguinal hernia**

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**Background**

Affection of round ligaments by endometrioid disease is known for more than 120 years due to publication of T. Cullen in 1896 but considered to be infrequent to the point that can be even neglected in practice. Since then, it has been mentioned in occasional articles which are mainly case reports and described as DIE or adenomyoma of intra- and extrapelvic location. The latter is rarer, characterized as an inguinal mass associated with severe pain and accounts for 0.3-0.6% of all patients. This condition is often misdiagnosed as an inguinal hernia or confused with enlarged lymph nodes, soft tissue tumours and foreign body granulomas

**Methods**

38 years aged female with a history of two caesarean sections, 4 medicated abortions before 12 weeks were referred to our centre. She suffered from intermittent swelling and pain in right groin aggravated during her menstrual cycle initially diagnosed as hernia. MR -scanning revealed a heterogeneous T1 hypo- and T2 hyperintense lesion of 43x40 mm of size with 10 mm poorly IV contrasting solid component close to abdominal wall lesion in right inguinal area.

**Results**

**Steps of surgery**

- 1 - Punction of abdominal wall in Palmer point with Veress needle, creation of pneumoperitoneum, insertion of trocars following 5 ports technique;
- 2 – Initial inspection and adhesiolysis: dissection of omentum from parietal peritoneum of anterior abdominal wall;
- 3 – Secondary revision, detection of closed anterior compartment of pelvic cavity caused by intime attachment of frontal uterine surface down to previous post-caesarean scar with lower part of anterior wall and bladder;
- 4 – Dissection of round ligament entering into the inguinal canal and cutting its affected enlarged distal part from proximal within healthy tissue;
- 5 – Suturing of lacerated anterior wall of the uterus;
- 6 – Removal of affected part of the round ligament through external incision, restore of the fascia and reattachment of the preserved part of the ligament to it;
- 7 - Check for haemostasis, let of the pneumoperitoneum, extraction of trocars, end of the operation.

Time of surgery– 130 min, EBL – 80 ml. Pathohistological examination confirmed the presence of endometrioid lesion. Patient’s satisfaction due to pain relief was noted during postoperative follow-up.

### **Conclusions**

The misdiagnose of hernia with extrapelvic round ligament endometriosis has been a matter of comment of many authors. The presence of a groin mass in women of reproductive age, associated with pain expressed during menstrual cycle must raise the suspicion of the latter. Other criteria in favour of specific endometrioid affection may include slow growth of swelling located in right side and magnetic resonance imaging.

<https://player.vimeo.com/video/968902188?autoplay=1>

**ABST-0739 -  
Free Communication**

**Quality of life after uterine artery embolization versus hysterectomy for symptomatic adenomyosis: 1 years' outcome from the QUESTA study.**

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**Background**

Uterine artery embolization (UAE) is thought to be a promising and less-invasive alternative for hysterectomy in therapy-resistant symptomatic adenomyosis. Comparative data is lacking. Our aim is to demonstrate non-inferiority of uterine artery embolization on health-related quality of life (HRQOL) in comparison to hysterectomy in the treatment of symptomatic adenomyosis, 1 year after treatment.

**Methods**

This prospective cohort study was registered at the Netherlands Trial Registry (NL5471). Twelve Dutch hospitals included participants with symptomatic adenomyosis eligible for hysterectomy from November 2015 to March 2022. Participants were offered UAE as an alternative treatment choice. Primary endpoint was the change in HRQOL between UAE and hysterectomy after one year, measured with standardized WHO-QOL-Bref (physical, psychological, social and environmental domain) and SF-12 (mental and physical) questionnaires. UAE was considered non-inferior to hysterectomy when HRQOL did not differ more than five points ( $\Delta 5$ ). Secondary endpoints were a subsequent hysterectomy after UAE and changes in WHO-QOL100 facet Pain and Discomfort and facet Sexual Activity. Linear mixed models were used for the within and between group analyses, adjusted for relevant covariates.

**Results**

Of 101 participants, 51 underwent a hysterectomy and 50 a UAE. Both hysterectomy and UAE led to a significant increase of all HRQOL scores, one year after intervention (all  $p < .05$ ). UAE and hysterectomy were comparable for almost all HRQOL ( $\geq \Delta 5$ ), only UAE was inferior to hysterectomy for WHO-QOL-Bref Physical domain ( $\beta -8.3$ ; 95%CI  $-17.2 - 0.6$ ). Both hysterectomy and UAE resulted in an increase of facet Pain and Discomfort and facet Sexual Activity (both  $p < .001$ ). However, hysterectomy had a greater effect on Pain and Discomfort than UAE ( $p = .002$ ). Six patients (12%) underwent a subsequent hysterectomy in the first year after receiving UAE.

**Conclusions**

UAE for symptomatic adenomyosis is considered non-inferior to hysterectomy one year after treatment in terms of health-related quality of life and could therefore be a good and less-invasive alternative in the treatment for symptomatic adenomyosis. Nevertheless, when patients seek for a definitive solution for dysmenorrhea and/or (chronic) pelvic pain, hysterectomy remains the treatment of choice.

**Mid-term clinical results of EndoSearch: An international trial on endometriosis**

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**Background**

Endometriosis is a very common gynaecological disease affecting 10% of women of reproductive age. Main symptoms are chronic and severe pain in pelvis area and infertility in up to 40% of affected women. Currently, the only method to obtain a reliable diagnosis is the analysis of endometriotic lesions removed during surgery under general anaesthesia. There is a real need to diagnosis endometriosis non-invasively and quickly in order to improve patient management.

**Methods**

EndoSearch ((ClinicalTrials.gov ID NCT03376451).) aims to analytically validate a cluster of endometrial and blood biomarkers identified in previous studies and specific for the endometriosis diagnosis and disease prognosis recurrence. 25 clinical centres worldwide recruited 2000 patients and controls, collect biological samples and personal and clinical data processed at Endodiag labs, Paris, France though lab biotechnology techniques. Results will allow the assessment of sensibility and specificity (NPV and PPV) of the biomarker signature for endometriosis diagnosis and disease recurrence.

**Results**

We present the clinical data and outcomes after a one and two year follow up of patients, showing the importance and impact of operating even stage 1 and 2 endometriosis to lower pelvic and general pain, with a highly positive impact on EHP5 scores, constipation, sexual life, quality of life scores and use of medications.

**Conclusions**

Mid-term clinical results of endometriosis operated by key leader teams on four continents shows a positive impact of surgery on pain and quality of life scores. Variety, volume, veracity, value and velocity of collecting and gathering big data were the key points as a quality control for future results coming up.



**ABST-0593 -  
Free Communication**

**Barometer as a new evidence-based measuring instrument to make your operating room sustainable: measuring = knowing.**

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<sup>1</sup>*Leiden University Medical Center, Gynaecology, Leiden, The Netherlands*

**Background**

The operating rooms, with an area of less than 10% of the hospital floor, are responsible for 20-30% of hospital waste, high energy consumption and anaesthetics. This results in a large CO<sub>2</sub> footprint. It is clear that we can - and must do something, because with this huge amount of pollution we inherently disrupt healthcare. To provide insight into the CO<sub>2</sub>-footprint of the OR and to make it comparable how sustainable your own operating room is. This barometer has been developed that shows how sustainable you are compared to your national peers and where you can become more sustainable.

**Methods**

Five themes were defined to assess your level of sustainability. Questions within each theme gathered information about specific sustainability measures. The themes are: 1. Organization and reporting. 2. Energy use 3. Anaesthesia 4. Materials and waste 5. Sterilisation.

Based on literature research, data on each topic was obtained. The studies used were mainly LCAs and data was analysed and used in the model. The model defined an ideal sustainable OR. This allows a score g to be calculated for each hospital separately on the different themes. After validation, the barometer could be enrolled in all Dutch hospitals.

**Results**

After validation of the model, 36 of the 70 hospitals (51%) participated. The following results were found.

- In the current situation, it appears that everyone has started making the OR more sustainable, but opportunities for improvement lie in purchasing and education. The recommendations were to transcend personal initiatives and invest sustainability in education and training.
- The switch to green energy has been initiated in many hospitals and energy-saving measures have been taken. The recommendations to switch to green energy and reduce energy use remain in force.
- Desflurane is being phased out, nitrous oxide not yet. The recommendation is to ban desflurane and reduce the use of inhalation anaesthetics and switch to intravenous anaesthesia.
- There are opportunities for the introduction of reusable medical devices, but the rollout lags behind other themes. The recommendation is to prioritize based on insights of the R-ladder, sharing best practices and making purchasing policy more sustainable.
- The in-house sterilisation offers options for sustainability. Start in small steps with energy and water saving methods.

## **Conclusions**

The barometer is a unique and dynamic instrument to measure the sustainability of your own operating room on evidence-based data. This makes it possible to compare with other hospitals how sustainable you are, Especially, where you can become even more sustainable. This benchmark makes it the best instrument to motivate both, the organization and the individual employee to implement sustainability. New collected (LCA) data can be incorporated in the tool when available. This dynamic instrument accelerates the transition to fulfil the urgency and mandatory criteria for future sustainability.

**ABST-0581 -  
Free Communication**

**The Double Flap Technique for Diffuse Adenomyosis**

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**Background**

The objective of this video is to demonstrate a step-by-step approach of a double flap technique used in cases of diffuse adenomyosis involving both the anterior and posterior uterine walls. The case involves a 36-year-old nulliparous woman with primary infertility, repeated failed IVF cycles, and unsuccessful medical treatment.

**Methods**

A preoperative MRI scan identified diffuse adenomyosis involving the anterior and posterior uterine walls, with a thickened junctional zone (>12 mm). An intracavitary diluted indocyanine green (ICG) dye was utilized to maximize the precise excision of adenomyosis tissue while maintaining adequate myometrial residual around the cavity. A double flap technique was performed to excise the adenomyosis tissue and reconstruct the uterine walls.

**Results**

The patient was discharged on the same day of surgery with no complications.

**Conclusions**

In selected cases, uterus-sparing surgical techniques for diffuse adenomyosis are indicated where medical management fails, and repeated IVF cycles are unsuccessful. A double flap approach can be used to excise the adenomyosis tissue while maintaining adequate myometrium. The use of the robotic platform, in conjunction with ICG dye, can facilitate these surgical techniques and potentially improve outcomes.

<https://player.vimeo.com/video/951356222?autoplay=1>

**ABST-0554 -  
Free Communication**

**Obstetrical complications in women suffering from concomitant adenomyosis: a single center retrospective cohort**

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**Background**

The objective of this study was to characterize the population of pregnant women diagnosed with adenomyosis with potentially related obstetrical complications in our tertiary centre.

**Methods**

A retrospective single centre study was conducted on women who delivered in the OBGYN Department at Citadelle Hospital-CHU Liège. Clinical data were collected from the medical reports and the electronic patient data files.

The first inclusion criteria was the availability of imaging prior to the selected singleton pregnancy or during the postpartum describing the uterus and identifying signs of adenomyosis (if applicable). From this pool, all the women with complicated pregnancies or deliveries were selected and then matched with women with an uncomplicated pregnancy and delivery occurring on the same day. Complications of interest were late miscarriage, prematurity (early and late), small for gestational age, intrauterine growth retardation, gestational hypertension, pre-eclampsia, HELLP syndrome, stillbirth, placenta praevia, placenta accreta spectrum and postpartum haemorrhage.

**Results**

From 1st January 2020 to 31st December 2023, 9696 women delivered in our maternity ward, from which we identified a total of 2620 cases based on our first inclusion criteria. The cohort consisted of mostly Caucasian women (79%), the conception was in 88.9% spontaneous, and the mean age at delivery was 30.7 years (range: 14 – 49 years) with a predominance for vaginal delivery (70.4%). The total rate of adenomyosis was 3.3% (86 women).

With the aim of determining the impact of adenomyosis on pregnancy, we first compared the group with adenomyosis (n =86) with the group without adenomyosis (n= 2534). We observed that women diagnosed with adenomyosis were older (34.0 years vs 30.6 years,  $p < 0.001$ ), delivered 9 days earlier (gestational age in days: 258.8 vs 267.5,  $p < 0.05$ ), and their estimated blood loss during the delivery was higher (456.2 ml vs 384.9 ml,  $p < 0.05$ ). Moreover, the overall rate of complication observed in the adenomyosis group was higher (63.9%) in comparison to the group without adenomyosis (49.2%) ( $p < 0.01$ , OR 1.8).

When focusing only on the group with complications (1302 cases including 55 with adenomyosis), we observed significant higher rates of late miscarriages (10.9% vs 3.8%,  $p < 0.05$ , OR 3.05) and placenta praevia (7.3% vs 2.1%,  $p < 0.05$ , OR 3.68) in the subgroup presenting adenomyosis. For other pregnancy and delivery complications such as described above, no statistically significant difference related to adenomyosis was observed.

## **Conclusions**

In this cohort, pregnant women with adenomyosis are at a higher risk for earlier delivery and higher estimated blood loss at delivery. Moreover, special attention must be taken within this group regarding late miscarriage and placenta praevia as their rates are increased.

**ABST-0489 -  
Free Communication**

**Edelweiss-6: long-term effects of linzagolix in women with endometriosis-associated pain**

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<sup>4</sup>*Theramex HQ UK Ltd, Medical Affairs, London, United Kingdom*

**Background**

The GnRH-antagonist linzagolix, currently under development for the reduction of endometriosis-associated pain (EAP) was tested in this prospective, randomized, placebo-controlled phase 3 study. This extension study assessed the long-term effects of linzagolix in women with moderate to severe EAP.

**Methods**

After the 6-month treatment period in the principal Edelweiss-3 study, women could choose to continue treatment for a further 6 month with either linzagolix 75mg alone or linzagolix 200mg plus add-back therapy (ABT; 1mg estradiol/0.5mg norethindrone acetate). Women previously on placebo were randomized to either dose of linzagolix. Co-primary endpoints were a clinically meaningful reduction from baseline in dysmenorrhea (DYS) and non-menstrual pelvic pain (NMPP) up to month 12, along with a stable or decreased use of analgesics for EAP measured daily on a 4-point verbal rating scale. Secondary endpoints assessed the maintained efficacy up for dyschezia, overall pelvic pain (OPP) and the interference of pain with daily activities up to month 12.

**Results**

Of the 484 women in the Edelweiss-3 study, 353 enrolled and were analysed in the Edelweiss-6 study. At the beginning of the extension study (month 6), 84.7% of women in the linzagolix 200mg+ABT group demonstrated a meaningful reduction in DYS, which increased to 91.0% at month 12. In the 75mg group, the proportion of subjects with response was 49.6% at month 6 and 55.9% at month 12. For NMPP, 61% of subjects in the linzagolix 200mg+ABT group had a meaningful reduction at month 6, which increased to 67.6% at month 12. In the 75mg group, the proportion of subjects was 54.0% at month 6 and 59.5% at month 12.

A steady reduction in dyschezia scores measured on an 11-point numerical rating scale (NRS) was observed. The mean change from baseline for dyschezia at Month 12 was -2.72 (vs -2.20 at Month 6) and -2.11 (vs -1.85 at Month 6) for the 200 mg+ABT and 75 mg groups, respectively. Marked improvements in mean OPP scores (NRS) were observed for both linzagolix groups. The mean change from baseline for OPP at month 12 was -4.35 (vs -3.76 at month 6) and -3.46 (vs -2.92 at month 6) for the 200mg+ABT and 75mg groups, respectively. The mean change from baseline in the difficulty to perform daily activities score at month 12 was -4.00 (vs -3.46 at month 6) and -3.16 (vs -2.68 at month 6) for the 200mg+ABT and 75mg groups, respectively. Overall, linzagolix was well-tolerated over the course of the 12 months treatment.

**Conclusions**

Improvements observed at Month 6 in DYS and NMPP were generally increased at month 12 in both linzagolix 75 mg and 200 mg+ABT groups. Similarly, the observed efficacy on secondary endpoints showed a trend for improvement at month 12.

**ABST-0488 -  
Free Communication**

**Edelweiss 3: efficacy results from a multinational, randomised, placebo-controlled phase 3 study testing two doses of linzagolix in women with endometriosis associated pain.**

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<sup>4</sup>Theramex HQ UK Ltd, Medical Affairs, London, United Kingdom

**Background**

Linzagolix is a novel, oral GnRH-antagonist that suppresses estradiol in a dose-dependent manner and is currently under development for the treatment of endometriosis-associated pain (EAP). This prospective phase 3 study evaluated the efficacy and safety of two doses of linzagolix in women with moderate to severe EAP.

**Methods**

EAP was assessed on a daily 4-point verbal rating scale. Women were equally randomized and treated with linzagolix 75mg, 200mg plus add-back therapy (ABT; 1mg estradiol/0.5mg norethindrone acetate) or placebo for 6 months. Co-primary endpoints were a clinically meaningful reduction from baseline at month 3 in dysmenorrhea (DYS) and non-menstrual pelvic pain (NMPP), along with a stable or decreased use of analgesics for EAP. Secondary endpoints explored the change from baseline to Month 6 for DYS and NMPP, dyschezia, overall pelvic pain and the interference in the ability to perform daily activities due to pain (measured with the EHP-30 pain dimension).

**Results**

484 women were randomized and treated. The mean (SD) age was 34.9 (6.6) years and mean (SD) BMI was 24.3 (5.0) kg/m<sup>2</sup> with 99% of subjects being white. At baseline, mean (SD) pain scores for DYS and NMPP were 2.28 (0.42) and 1.77 (0.45), respectively.

At month 3, women receiving 200mg+ABT demonstrated significant improvements in DYS and NMPP versus placebo, with a responder rate of 72.9% (p<0.001) and 47.3% (p=0.007), whilst the responder rates for the 75mg group were generally lower at 44% (p<0.001) and 38.9% (p=0.279), respectively. At month 6, responder rates for 200mg+ABT was 80% (p<0.001) and 57.1% (p=0.003) for DYS and NMPP, whilst responder rates of 49.5% (p<0.001) and 52.2% (p=0.036) were seen in the 75mg group.

Dyschezia, assessed on an 11-point numerical rating scale (NRS) was significantly improved for both groups, with a mean change from baseline of -1.99 (95%CI: -2.29, -1.70; p=0.012) for 200mg+ABT, and -1.98 (95%CI: -2.28, -1.69; p=0.015) for 75mg group. For overall pelvic pain (NRS), the mean change from baseline was -3.39 (95%CI: -3.74, -3.03; p<0.001) for 200mg+ABT and -2.84 (95%CI: -3.20, -2.48; p=0.024) for 75mg. Both doses offered a statistically significant improvement in the interference of pain with daily activities as measured on the EHP-30 pain dimension, with a mean change from baseline of -35.60 (95%CI: -38.73, -32.48; p<0.001) and -27.37 (95%CI: -30.50, -24.25; p=0.001) for the 200mg+ABT and 75mg group, respectively.



## **Conclusions**

Linzagolix 200mg+ABT treatment significantly improved both DYS and NMPP at month 3 and 6, with statistically significant improvements also seen for dyschezia, overall pelvic pain and interference of pain with daily activities. 75mg dose on the other hand improved DYS symptoms alone at month 3, whilst statistically significant improvements in NMPP and other secondary endpoints were seen by month 6.

**ABST-0068 -  
Free Communication**

**Manual pelvic physiotherapy. Emerging trends in the treatment of endometriosis. A prospective cohort multisite pilot study.**

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**Background**

Endometriosis is one of the most complex gynaecological conditions that primarily affects women of childbearing age. The management of endometriosis mainly focus on alleviating pain and improving the quality of life. Nevertheless, for 20-40% of women, symptoms persist following surgical and/or pharmacological treatment. Alternative ways of managing pain are needed, which need to consider contemporary pain science and all biopsychosocial aspects of the persistent pain experience. Physiotherapists use a holistic approach to treat patients with persistent pain conditions through pain education, manual therapy, pelvic floor exercises and promotion of healthy bladder and bowel practices. Current guidelines provide minimal guidance for physiotherapy in the care of women with endometriosis, and none of the accredited or provisional endometriosis centres across the United Kingdom identify women health physiotherapists as part of their management team.

**Methods**

At London North West University Endometriosis Centre (LNWUEC), a prospective cohort pilot study was conducted across our three sites: Central Middlesex, Ealing and Northwick Park Hospitals. Thirty patients with various symptoms of endometriosis were included in the study, in the period of May 2023 until December 2023. Four to six sessions of physiotherapy were provided over the course of six months. The British Society for Gynaecological Endoscopy (BSGE) Pelvic Pain Questionnaire was conducted at the initial consultation and then at the end of their physiotherapy sessions. All the patients were blinded to their previous scores when completing the post-treatment questionnaires. As the data was collected during routine clinical practice, our study did not require approval from the institutional review board.

**Results**

At the end of six month of the study, 69 % of patients recruited in the study reported improvement in symptoms and benefits from physiotherapy. Two patients declined further medical management including surgery. Eight patients (27%) stated that psychological factors are impacting their treatment, that includes diagnosis of depression or anxiety, body image disorders or previous reports of sexual abuse as a child or adult. Only five patients (31%) found it not helpful.

**Conclusions**

The results were encouraging to prove the underestimated role of physiotherapy in the treatment of such a challenging condition. A process is in place for commencing the first multicentre randomised controlled trial to evaluate the effect of physiotherapy treatment on endometriosis agony.

**First birth and total fertility rate of women with surgically verified endometriosis – a nationwide register study of 18,320 women**

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**Background**

Endometriosis is associated with reduced fertility. However, little is known concerning the effect(s) of endometriosis on first birth rate at population level, and especially regarding the different endometriosis subtypes. We evaluated first birth rate and total fertility rate (TFR) of parous women with surgically verified endometriosis according endometriosis subtypes.

**Methods**

A retrospective register-based study of women aged 15-49 years with surgically diagnosed endometriosis (n=18,320) during 1998-2012 in Finland. Sub-cohorts of ovarian (n=6383), peritoneal (n=5786) and deep (n=1267) endometriosis were formed. Sub-cohort of other endometriosis (n=4884) comprised combined diagnoses, and rare or unknown forms of endometriosis. The population-based reference cohort (n=35,788) consisted of 1-2 age- and residence-matched women without diagnosed endometriosis.

We gathered registered births from the 15-years-of-age until first birth, emigration, sterilization/bilateral oophorectomy/hysterectomy, 50-years-of-age or December 31<sup>st</sup>, 2019. Main outcomes were hazard ratio with 95% confidence intervals (HR [95% CI]) of first birth and TFR of parous women.

**Results**

Altogether 18,320 (68.2%) women with endometriosis compared to 28,871 (80.7%) reference women gave birth during follow-up. HR for first birth was lower in women with endometriosis, 0.65 (95% CI 0.64-0.67). During the follow-up period the rate of infertility diagnosis was 44.0% and 10.6% (p<0.001), and IVF treatment 22.8% and 4.1% (p<0.001), respectively.

Among the sub-cohorts, women with peritoneal endometriosis had the highest birth rate (73.1%). Compared to peritoneal endometriosis, women with ovarian and other endometriosis had lower first birth rate, HR 0.82 (95% CI 0.79-0.85) and HR 0.81 (95% CI 0.77-0.85), respectively. However, women with deep endometriosis had similar first birth rate than the peritoneal sub-cohort (HR 1.00 [95% CI 0.93-1.08]).

TFR of parous women was 1.95 (SD 0.88) in the endometriosis and 2.35 (SD 1.26) in the reference group ( $p < 0.001$ ), without clinically significant differences between the endometriosis sub-cohorts.

### **Conclusions**

Women with endometriosis had lower first birth rate and TFR among parous women than women without the condition. Regarding endometriosis subtypes, women with peritoneal endometriosis had the highest first birth rate. Infertility diagnoses and IVF treatments were more common among women with endometriosis.

**Predictors for radical surgery in patients with an isolated rectal endometriotic nodule: a multicentre prospective study**

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**Background**

The ideal surgical technique for rectal endometriosis is still being debated: a radical approach (with colorectal segmental resection) versus a more conservative approach aiming at preserving the rectal ampulla (either by shaving or disc excision). Preoperative assessment with ultrasound and/or MRI may assist the surgeon in the decision-making process and patient counselling. The current trend is to perform a complete lesion removal with the least harmful procedure (i.e., the most conservative treatment possible). However, so far, no prospective studies have objectively assessed the link between patient characteristics and the type of surgical procedure performed. The aim of this study was to determine predictors for radical surgery (i.e. colorectal segmental resection) in patients with an isolated rectal endometriotic nodule.

**Methods**

Multicentre prospective observational study evaluating 5 candidate predictors: bowel endometriosis syndrome (BENS) score, rectal nodule characteristics (length on ultrasound, height of the nodule on MRI and MRI circumference) and history of surgery in the rectovaginal space/bowel. Patients were included in two European referral centres. Center of inclusion was also considered in the multivariable analysis.

**Results**

Of the 196 included patients, 92 (46.9%) had conservative treatment and 104 (53.1%) underwent segmental resection. From the five candidate predictors only rectal nodule length on ultrasound (in mm) and MRI circumference (affected % of the outer contour) were significant predictors. Rectal nodule length was 19.1±9.2mm in the conservative vs 25.8±11.9mm in the segmental resection group (p<0.001), MRI circumference was respectively 26.0±10.0% and 35.4±11.1% (p<0.001). Results of the multivariable regression model (only considering rectal nodule length and MRI circumference) confirm the importance of these two factors: odds ratio (OR) of 1.047 (95%CI 1.010-1.085; p=.0123) for the rectal nodule length and OR of 4.543 (95%CI 2.276-9.068; p<.001) for the (log2-transformed) MRI circumference. The discriminative ability (AUC) equalled 0.756 (0.688;0.824).

As a secondary analysis, subgroup analysis depending on centre of inclusion was performed, where both predictors remain significant. In centre-A (56/94(59.6%) segmental resection) mean rectal nodule length and MRI circumference were 19.2±7.5mm and 28.0±9.5%, in centre-B (48/102(47.1%) segmental resection) these values were respectively 25.8±13.0mm and 33.5±12.7%. Significant centre differences for these predictors were seen (p≤.001). Importantly, centre remained a significant predictor when added in the multivariable model. The latter finding may mean that the surgical team itself cannot be excluded as a contributing factor.

## **Conclusions**

Since we have established that rectal nodule length and circumference are important predictors for the type of surgery, we propose to systematically evaluate them preoperatively to aid patient counselling and surgical planning. Future studies should attempt to validate our findings, evaluate the predictive value of other patients' characteristics and look into the decision-making process of the surgeon.

**First experience of robotic sacrocolpopexy using the CMR Versius Surgical System®**

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**Background**

Minimally invasive sacrocolpopexy is regarded as the gold standard technique for Pelvic Organ Prolapse (POP) surgical treatment. It demonstrated excellent anatomical and functional outcomes, offering high success rates and low risk of recurrence compared to alternative techniques. We present the first case of robotic sacrocolpopexy (RSCP) performed using the Versius Robotic Surgical System® (CMR Surgical, Cambridge, UK). This system features independent mobile bedside units and wristed instruments, allowing for great flexibility. The surgeon operates from an open console equipped with ergonomic controller handgrips, enhancing communication with the surgical team. The purpose of this article is to evaluate the feasibility of a nerve-sparing RSCP performed using the Versius robotic platform.

**Methods**

A 63-year-old multiparous woman presented with symptomatic multicompartamental POP (ICS POP-Q: Aa: +2, Ba: +3,5, C: +2, D: +3, Bp: -2, Ap: -2, tvl:10, gh: 3,5, pb: 3). After a comprehensive preoperative evaluation, the patient underwent a subtotal hysterectomy with bilateral adnexectomy and sacrocolpopexy, using the Versius robotic system.

**Results**

The surgical procedure was completed without any intraoperative complications. No system errors or faults in the robotic arms were recorded. Operative time (OT) was 205 minutes, docking time was 8 minutes, and estimated blood loss (EBL) was 30 ml. The postoperative course was uneventful, and the patient was discharged two days later. Urogynaecological examination at one-month follow-up demonstrated a complete objective and subjective resolution of the prolapse.

**Conclusions**

The Versius robotic platform seems to be feasible and effective for performing RSCP. The results, in terms of OT, intra- and post-operative outcomes, and length of hospitalization, were comparable to previously described minimally invasive techniques. Larger series and longer follow-up studies are mandatory to define the outcomes and possible advantages of this system. We aim to provide preliminary insights and technical notes for other centres that may soon introduce this innovative technology to perform RSCP.

<https://player.vimeo.com/video/952005926?autoplay=1>



**Robotic-assisted hysterectomy using the new Dexter Robotic System™: Results of the first prospective multinational study**

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**Background**

Despite the growing interest in the benefits of robotic surgery in gynaecology, the robotic approach is still limited by the accessibility of robotic platforms. Dexter Robotic System™ is a multiport, modular platform with a small and simple format, designed to fully integrate into the laparoscopic workflow while providing all the benefits of robotic surgery. Dexter consists of two patient carts with instrument arms, an endoscope arm and an open, ergonomic surgeon's console, that allows the surgeon to remain sterile while using the robot and to easily switch to laparoscopy when needed for optimal patient outcomes. This prospective clinical study (ClinicalTrials.gov NCT05537727) evaluated the perioperative safety and performance of hysterectomy using the Dexter system.

**Methods**

Four centres in Switzerland, France and Germany recruited patients with benign and low-risk malignant indications for this study. Patients underwent hysterectomy with the Dexter system and were followed for 30 days postoperatively. Patient characteristics, procedural success, incidence of major perioperative complications (Clavien-Dindo III-V), and the clinical performance were analysed.

**Results**

Thirty-four patients with a mean age of 46±8 years and a mean BMI of 25.74±3.99 kg/m<sup>2</sup> were included in the study. Concurrent salpingectomy and salpingo-oophorectomy were performed in 76.5% and 14.7% of patients, respectively. There were no intraoperative complications, blood transfusions, or conversions to open surgery. The mean estimated blood loss was 121±95 ml, with the mean skin-to-skin operative and docking times of 139±51 min and 6±2 min, respectively. In three cases, the surgeons opted to complete the procedure laparoscopically. Two Clavien-Dindo grade IIIb postoperative complications were reported, none of which were device related. The mean length of hospitalisation was 2.0±1.4 days.

**Conclusions**

This study confirmed that robotic-assisted hysterectomy using the Dexter system is safe and feasible for both benign and low-risk malignant indications. The results showed that the performance of the Dexter system aligns with the existing minimally invasive techniques. This observation and the full potential of the system need to be confirmed in a larger study with a longer follow-up.

**ABST-0403 -  
Free Communication**

**Exploring safety, efficacy, and outcomes of laparoscopic sacrocolpopexy versus robotic surgery with the Hugo RAS System**

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**Background**

Sacrocolpopexy has established itself as the gold-standard procedure for treating Pelvic Organ Prolapse (POP). While it is feasible to perform this operation using conventional laparoscopic techniques, robotic-assisted surgery represents a new advancement in the evolution of this procedure and has emerged as a promising alternative to laparoscopy. One of the latest systems recently introduced to the market is the Hugo RAS® (MEDTRONIC Inc, USA), designed to offer greater precision and control during minimally invasive surgery. Some of its features include a remote open surgical console and four independent manipulator arms, distinguishing it from the monolithic structure of the DaVinci® system. The aim of the present study is to evaluate the outcomes of laparoscopic sacrocolpopexy procedures compared to those performed with the Hugo RAS® system.

**Methods**

We conducted a retrospective observational study to analyse and compare the safety, feasibility, and outcomes of laparoscopic procedures versus robotic-assisted surgery performed with the Hugo RAS® system. Data from 200 patients with POP were collected, with 100 patients undergoing laparoscopic sacrocolpopexy and the remaining undergoing robot-assisted surgery.

**Results**

The findings demonstrated that robotic-assisted surgery did not differ from standard laparoscopic procedure in terms of intra- and post-operative complications, post-operative pain, and length of hospitalization, except for operative time and intraoperative blood loss. Operative time was on average 20 minutes longer and the intraoperative blood loss was lower in the Hugo RAS® population. Moreover, the median 10-months follow-up demonstrated a statistically significant improvement of objective and subjective outcome in both populations, with a statistically significant POP symptoms resolution and improvement of voiding and storage symptoms.

**Conclusions**

Robotic assisted surgery procedures performed with the Hugo RAS® system appear to be safe and effective in treating symptomatic POP. These preliminary insights on this recently released robotic system may be interesting for other centres that may soon introduce this new technology.

**Unmasking the Hidden: Step-by-Step Robotic Ureteroneocystostomy for Elusive Ureteric Endometriosis**

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**Background**

Urinary tract endometriosis (UTE) affects 1–5.5% of women with endometriosis, primarily involving the bladder in 70–85% and the ureter in 9–23% of cases [1]. Ureteral endometriosis (UE) diagnosis is difficult. It is often asymptomatic in up to 30% of patients. Symptomatic cases mostly report dysmenorrhea and pelvic pain (39–79% and 47–64%, respectively). Cyclical haematuria, once thought to be a common indicator, occurs in less than 17% of cases. Symptoms do not always match the severity of obstruction, which if unnoticed, can severely impair renal function. Nephroureterectomy is recommended when renal function drops below 10-15% [2]. We present a standardised, step by step, surgical management of intrinsic ureteral endometriosis.

**Methods**

Two cases illustrate our approach. Case 1 involved a 33-year-old nulliparous woman presenting with severe left-dominant pelvic pain and deep dyspareunia. MRI showed 7 cm endometrioma, left hydroureter, and hydronephrosis, with scintigraphy showing 25% renal function. Case 2, a 36-year-old nulliparous woman, exhibited mild dysmenorrhea, with MRI revealing a hydroureter up to the pelvic brim and thick right uterosacral ligament; scintigraphy showed 30% renal function. Both underwent robotic excision of endometriosis, including bladder psoas hitch and ureteroneocystostomy after an MDT.

**Surgical Steps**

Drainage of endometrioma (case 1)

Retroperitoneal dissection with ureterolysis and rectum mobilization.

Demarcation and excision of endometriotic nodules.

Stripping of endometrioma (case 1).

Transaction and mobilization of ureter, resection of ureteral stricture.

Development of the Space of Retzius and bladder psoas hitch.

Reimplantation of the ureter into the bladder.

## **Results**

Postoperative management included a urethral catheter for two weeks and ureteral stents for six weeks, with a follow-up CT urogram at three months. Case 1 CT urogram showed normal findings; results for Case 2 are pending. Both patients had uneventful recovery.

## **Conclusions**

These cases highlight the diverse clinical presentations of ureteric endometriosis and the critical role of standardised surgical steps in preserving renal function and enhancing quality of life.

<https://player.vimeo.com/video/945933908?autoplay=1>

**ABST-0383 -  
Free Communication**

**Comparison between learning curves of robot-assisted and laparoscopic surgery in gynaecology: a systematic review**

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**Background**

Robotic-Assisted Surgery (RAS) can be used to treat both benign and malignant pathology in gynaecology, and the advantages and disadvantages compared to other minimally invasive surgical approaches are a topic of discussion in scientific literature. The assessment of learning curves (LC) in endoscopic surgery is a matter of debate and a widely accepted method to define the exact number of procedures a surgeon needs to perform to become proficient in a surgical procedure is lacking. This study aims to review different LC assessment methods in gynaecologic surgery and compare the differences in the LC between RAS and LPS, with the objective of elucidating whether the LC of RAS is shorter than that of LPS.

**Methods**

The search strategy consisted of searching five electronic databases: MEDLINE, Web of Sciences, Google Scholar, Scopus, and ClinicalTrial.gov, from their inception to September 2023. We included observational or interventional studies, as well as randomized-controlled clinical trials conducted in English that reported the absolute number of procedures necessary to achieve proficiency in both RAS and LPS gynaecologic procedures, and which also reported an objective method for assessing LC. Data were divided in two groups: RAS and LPS. Continuous variables were presented as mean  $\pm$  standard deviation, and categorical variables as absolute numbers and percentages. We performed a supplemental quantitative analysis to compare the LC in RAS and LPS.

**Results**

Six studies were included and data were extracted for a total of 545 women (254 underwent RAS and 291 underwent LPS). Several reproducible methods were used to assess the LC. Comparison of the number of procedures necessary to reach the LC in RAS and LPS showed a mean of  $15 \pm 6.16$  and  $20.25 \pm 19.19$ , respectively [ $p < 0.0003$ ].

**Conclusions**

Our findings suggest that RAS exhibits a steeper LC than LPS in gynaecologic procedures. However, further prospective and randomised studies, ideally involving inexperienced surgeons, are needed to confirm our analyses and, most importantly, to develop a standardized and widely accepted method to assess the LC in endoscopic surgery.



**ABST-0377 -  
Free Communication**

**Robotic assisted laparoscopic niche repair: Sonomorphological results and pregnancy rates**

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**Background**

Uterine scar defects, called niches, are increasingly common and reported in up to 69% after caesarean section (CS). Niches are related to an elevated risk of life-threatening complications as CS-pregnancies, placenta accreta spectrum disorders and uterine dehiscence or rupture in a subsequent pregnancy with residual myometrial thickness (RMT) as the most reliable prognostic factor. Therefore, concerns about safety are rising in women with a severe niche and a wish to conceive. Concomitantly several surgical techniques have been introduced for uterine niche repair aiming to improve RMT before conception. The purpose of the study was to sonomorphologically characterise the niches before and after surgery and to monitor subsequent pregnancy rates.

**Methods**

We conducted a retrospective cohort study including patients with a uterine scar defect after CS with RMT < 3mm and a wish to conceive who underwent robotic-assisted laparoscopic niche repair (RALNR) at our clinic between 05/2019 and 09/2023. Sonomorphological parameters as widths and depths of the niche as well as RMT were assessed by transvaginal ultrasound before and six weeks after surgery. Clinical outcomes as symptoms relieve, pregnancies and live births after surgery were obtained by telephone interviews. Descriptive statistical analyses and pre-post changes with the Wilcoxon-Test were performed using SPSS.

**Results**

Of 35 eligible patients 24 could be included in the study after having signed the general consent for further use of coded personal data. Mean niche widths (10,0 mm preoperative, SD 3,5 vs 2,6 mm postoperative, SD 3,4,  $p < 0.001$ ) and depths (mean 15,9 mm preoperative, SD 3,7 vs 1,8 mm postoperative, SD 2,6,  $p < 0.001$ ) were significantly reduced and RMT (mean 1.5 mm preoperative, SD 1,5 vs 8,3 mm postoperative, SD 2,9,  $p < 0.001$ ) was significantly improved through RALNR. 13 of 18 eligible women conceived of which 7 delivered a child at term by Re-CS. Three women experienced more than one pregnancy loss. Six women had to refrain from conceiving until end of study period due to a recommended surgery-pregnancy interval of at least six months. In 5 of 6 women with bleeding disorders symptoms relieve could be obtained by surgery.

**Conclusions**

RMT and bleeding disorders can be improved by RALNR. Postsurgical pregnancy rates are high. Further studies are needed to investigate the clinical impact of RALNR on subsequent pregnancies in larger collectives and long-term follow up.

**ABST-0255 -  
Free Communication**

**Robotic Excision of an Accessory Cavitated Uterine Malformation (ACUM) with ICG assessment of the Uterine Cavity**

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**Background**

To highlight the surgical management of a rare cause of dysmenorrhoea - accessory cavitated uterine malformation (ACUM).

**Methods**

The true prevalence of ACUM is not known, but it is rare. The proposed pathogenesis is a Müllerian Duct abnormality. There are published case series on surgical management of ACUM, but there is still a relative paucity of data.

**Results**

The patient was a twenty-two-year-old referred to a tertiary minimally invasive gynaecology centre. She reported premenstrual, menstrual and non-cyclical pain as 10/10, 4/10 and 8/10 respectively. The diagnosis was queried when an ultrasound was performed to investigate her symptoms and further MRI confirmed appearances typical with ACUM. The DaVinci Xi was used to perform the robotic- assisted laparoscopy. Following demonstration of patent fallopian tubes and excision of endometriosis, temporary vascular clips were applied bilaterally to the origin of the uterine arteries and ovarian suspensory ligaments.

Diluted vasopressin was injected into the myometrium surrounding the ACUM. A vertical incision was performed overlying the malformation and dissected to expose the capsule until it was completely excised. The myometrium was closed with continuous V-Loc 2-0 and serosa opposed with interrupted Monocryl 2-0. Indocyanine green with near-infrared light was utilised throughout the procedure to:

- Confirm tubal patency at the beginning and end of surgery.
- Ensure the uterine cavity and fallopian tube were not breached.

**Conclusions**

The patient characteristics were typical for ACUM. This video presents a safe approach to excision of this malformation that other surgeons can consult when managing patients with ACUM.

<https://player.vimeo.com/video/945769959?autoplay=1>



**Robotic-assisted pudendal nerve release to surgically manage pudendal neuralgia – a debilitating case of neurovascular entrapment**

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**Background**

Pudendal neuralgia has a propensity for women with a reported incidence of 1 in 1000. Compression of the nerve can result in chronic pelvic pain with associated parasthesia and may have a profound impact on an individual's quality of life. Nantes Criteria can be used to help guide the diagnosis (1,2).

**Methods**

We present a case of a 47-year-old suffering with chronic, debilitating left labial/ vaginal pain. She had a history of endometriosis, but this was not the causative pathology. She met the Nantes criteria, with worsening symptoms whilst seated. Examination revealed a positive Tinel sign for the left pudendal nerve. MRI demonstrated a loss of bulk of the left obturator internus, and previous CT-guided pudendal nerve block resulted in transient improvement in symptoms. She'd had a previous transgluteal release without benefit, reflecting that the lesion was either above or at the entry of Alcock's canal.

**Results**

Surgery was performed via Robotic-Assisted Laparoscopy. The left lateral paravesical space is opened – care is taken to optimise access and keep the field dry. Once the arcuate line of the pelvis is identified, the angle of dissection changes to identify the sacrospinous ligament. The left pudendal nerve is entrapped at the level of the sacrospinous ligament; when this ligament is transected, the nerve is released medially and seen to pass freely into Alcock's canal. Pulsation of the pudendal artery is seen to become more prominent. Indocyanine green highlights the relevant neurovascular bundle. Four months from the procedure, the patient has seen marked improvements in her symptoms and mobility.

**Conclusions**

The treatment for pudendal neuralgia should be individualised and carried out by a multidisciplinary team. When conservative treatment fails, surgical nerve exploration and decompression can be considered.

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<https://player.vimeo.com/video/945714073?autoplay=1>

**ABST-0191 -  
Free Communication**

### **Step-by-Step Robotic Management of Caesarean Scar Niches**

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#### **Background**

Uterine isthmocele or niche is an iatrogenic pouch-like defect at the site of the previous caesarean scar. Due to the rising caesarean rates the reported prevalence is increasing. Though most women may remain asymptomatic, post-caesarean niche has been linked to postmenstrual spotting, caesarean scar ectopic pregnancy and secondary infertility.

In this comprehensive instructional video, we demonstrate the robotic-assisted minimally invasive caesarean scar defect removal and uterus reconstruction using the DaVinci Xi platform in two cases with symptomatic niches.

#### **Methods**

The patients, 34 and 27 years old, presented with postmenstrual bleeding. The 34 y.o. patient presented additionally with secondary infertility. The first step of the procedure is the creation of a broad bladder flap. The second step is the wide excision of the scar tissue and the debridement to the level of the normal myometrium. The third step is the closure of the uterotomy in three layers. We utilize barbed unidirectional polydioxanone sutures for the two deep layers and normal continuous polyglactin sutures for the superficial layer.

#### **Results**

The total operative time was 93 and 89 minutes respectively and the estimated blood loss was ~20ml in both cases. The postoperative recovery was uneventful. In the follow-up examination 3 months postoperatively, both patients had normal sonographic findings and reported no postmenstrual bleeding.

#### **Conclusions**

Robotic-assisted minimally invasive surgery facilitates detailed dissection of the uterine scar and adequate reconstruction of the uterus.

<https://player.vimeo.com/video/945557659?autoplay=1>

**Approaches for hysterectomy and implementation of robot-assisted surgery in benign gynaecological disease: a cost analysis study in a large university hospital.**

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### **Background**

As a minimally invasive technique, robot-assisted hysterectomy (RAH) offers surgical advantages and significant reduction in morbidity compared to open surgery. Despite the increasing use of RAH in benign gynaecology, there is limited data on its cost-effectiveness, especially in a European context. Our goal is to assess the costs of the different hysterectomy approaches, to describe their clinical outcomes, and to evaluate the impact of introduction of RAH on the rates of different types of hysterectomy.

### **Methods**

A retrospective single-centre cost-analysis was performed for patients undergoing a hysterectomy for benign indications. Abdominal hysterectomy (AH), vaginal hysterectomy (VH), laparoscopic hysterectomy (LH), laparoscopically assisted vaginal hysterectomy (LAVH) and RAH were included. We considered the costs of operating room and hospital stay for the different hysterectomy techniques using the "Activity Centre–Care program model". We report on intra- and postoperative complications for the different approaches as well as their cost relationship.

### **Results**

Between January 2014 and December 2021, 830 patients were operated; 67 underwent VH (8%), 108 LAVH (13%), 351 LH (42%), 148 RAH (18%) and 156 AH (19%). After the implementation and learning curve of a dedicated program for RAH in 2018, AH declined from 27.3% in 2014-2017, to 22.1% in 2018 and 6.9 % in 2019-2021. The reintervention rate was 3-4% for all surgical techniques. Pharmacological interventions and blood transfusions were performed after AH in 28%, and in 17-22% of the other approaches. AH had the highest hospital stay cost with an average of €2236.40. Mean cost of the hospital stay ranged from €1136.77-€1560.66 for minimally invasive techniques. The average total costs for RAH were €6528.10 compared to €4400.95 for AH.

### **Conclusions**

Implementation of RAH resulted in a substantial decrease of open surgery rate. However, RAH remains the most expensive technique in our cohort, mainly due to high material and depreciation costs. Therefore, RAH should not be considered for every patient, but for those who would otherwise need more invasive surgery, with higher risk of complications. Future prospective studies should focus on the societal costs and patient reported outcomes, in order to do cost-benefit analysis and further evaluate the exact value of RAH in the current healthcare setting.

**ABST-0130 -  
Free Communication**

**Robotically assisted transvaginal surgery**

*Masaaki Andou<sup>1</sup>, Yoshihumi Ochi<sup>1</sup>, Mari Sawada<sup>1</sup>, Kiyoshi Kanno<sup>1</sup>, Tsutomu Hoshiba<sup>1</sup>, Shiori Yanai<sup>1</sup>*  
*<sup>1</sup>Kurashiki Medical Center, Gynecology, Kurashiki-shi, Japan*

**Background**

This presentation will show techniques combining transvaginal surgery and robotics using the da Vinci SP system.

**Methods**

The Da Vinci SP is a robot designed to work in very narrow surgical spaces which combines three articulating surgical in one 25mm cannula. To date, 63 cases have been operated transvaginally using the Da Vinci SP system for benign uterine pathology and borderline ovarian malignancy. Procedures performed ranged from hysterectomy with or without adnexectomy, and omentectomy. All patients gave their consent for their surgical footage and data to be used for research and educational purposes.

**Results**

No patients underwent blood transfusion, and the maximum operative time was 1hr 30mins. The post-operative courses of all patients were uneventful. Patients could ambulate and take a regular diet the day after surgery.

**Conclusions**

Transvaginal surgery offers the possibility of a scarless surgery for patients. Through using a surgical robot specifically design for operating in narrow surgical spaces, the applicability of transvaginal surgery can be expanded.

<https://player.vimeo.com/video/945409431?autoplay=1>

# BEST SELECTED ePOSTER

**ABST-0010 - P\*001**

**Best Selected ePosters**

## **Perioperative Complications in Women undergoing Thermal Balloon Endometrial Ablation after one or more Cesarean Deliveries**

*Simon-Hermann Enzelsberger<sup>1</sup>, Peter Oppelt<sup>1</sup>, Sabine Enengl<sup>1</sup>, Isabella Sophie Palme<sup>1</sup>, Philip Sebastian Trautner<sup>1</sup>*

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### **Background**

The aim of this study was to determine whether thermal balloon endometrial ablation can be safely performed in women with one or more previous cesarean sections.

### **Methods**

This retrospective cohort study included 361 women who underwent thermal balloon endometrial ablation. The dataset was divided into two groups: women with at least one prior cesarean section and those without. Complications were classified using the Clavien-Dindo classification. Fisher's exact test was used to analyze associations.

### **Results**

Among the participants, 29.3% (n=105) had undergone at least one previous cesarean section. The association between intraoperative uterine rupture and previous cesarean section was not statistically significant (0% vs. 1%; p=.292). Only one uterine rupture was observed in the cesarean section group, which was located at the uterine fundus after a preoperatively unknown previous uterine perforation during IUD insertion. Secondary endpoints, including overall complication rate, postoperative endometritis, and vesicouterine fistula, also showed no significant associations, even when considering the number of previous cesarean sections. The readmission rate for bleeding disorders did not differ significantly between the groups (11.4% in both; p=1.00).

### **Conclusions**

Women who have had one or more prior cesarean sections with transverse isthmocervical hysterotomy do not appear to have an increased risk of complications in a subsequent thermal balloon endometrial ablation.

**ABST-0048 - P\*003**  
**Best Selected ePosters**

**Diagnosis of Endometriosis by Transvaginal Ultrasound: An Online Survey of Gynecologists Practising in Greece**

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**Background**

To check the views of Greek gynecologists, members of the Hellenic Society of Gynecological Endoscopy (HSGE), on the role of transvaginal ultrasound (TVS) in the diagnosis and assessment of endometrioma and Deep Endometriosis (DE). Participants were also asked about their own clinical experience using TVS for the same purpose, as well as their views on the need for specialized TVS training for diagnosing endometriosis.

**Methods**

Anonymous, online questionnaire, distributed to all HSGE members via electronic invitations by email.

**Results**

We collected 64 responses. 61 participants (95.31%) answered that they can confidently diagnose endometrioma by TVS "always" or "most of the time". With the exception of DE of the recto-vaginal septum/posterior vaginal vault, for all other DE locations, more than 50% of participants felt that they can "rarely" or "never" diagnose it by TVS in their own clinical practice. 42 participants (65.6%) stated that additional, specialized training is required for the diagnosis of endometrioma. When asked about a diagnosis of DE, 58 participants (90.6%) felt that the same is required. The only statistically significant association was between the number of TVSs performed per year and the clinician's ability to diagnose bowel DE in their practice. The answers to all other questions did not differ significantly based on professional status, years of experience post-residency, or number of TVSs per year.

**Conclusions**

Despite the emerging view that TVS plays a key role in the diagnosis and assessment of endometriosis, our participants still had low expectations from TVS. This was even more pronounced when asked about their own clinical practice. Our results demonstrate an overall delayed adoption of TVS in the diagnosis of endometriosis and confirm the need for relevant, specialised ultrasound training.

**ABST-0107 - P\*009**

**Best Selected ePosters**

**Perioperative outcomes of transvaginal natural orifice transluminal endoscopic surgery and transumbilical laparoendoscopic single-site surgery in hysterectomy: a comparative study**

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**Background**

This study aimed to compare the perioperative outcomes of patients who underwent hysterectomy for benign gynecologic diseases using transvaginal natural orifice transluminal endoscopic surgery (vNOTES) or transumbilical laparoendoscopic single-site surgery (TU-LESS).

**Methods**

A total of 314 patients who underwent hysterectomy for benign uterine disease at West China Second University Hospital between October 2018 and December 2021 were enrolled in this retrospective study. vNOTES (n= 157) and TU-LESS (n= 157) recipients were matched 1:1 in terms of uterine volume. The operation time, blood loss, postoperative decrease in hemoglobin, uterus weight, postoperative hospital stay, postoperative pain score at 12 h, postoperative indwelling catheter time, and other clinical indicators were compared between the two groups.

**Results**

All 314 patients successfully completed the surgery, and the two groups had similar baseline characteristics, with no statistical difference. Regarding intraoperative outcomes, the operation time was shorter in the vNOTES group than in the TU-LESS group (80 vs 100 min,  $P= 0.04$ ), and there were no significant differences in intraoperative blood loss, intraoperative blood transfusion rate, postoperative decrease in hemoglobin, or uterine weight. Concerning postoperative outcomes, vNOTES hysterectomy was significantly superior to TU-LESS hysterectomy in terms of the length of hospital stay (3 vs 4 days,  $P< 0.001$ ), visual analog scale score for pain at 12 h after surgery ( $P= 0.04$ ), postoperative indwelling catheter time (39.5 vs 64.0 h,  $P< 0.001$ ), and postoperative exhaust time (24.0 vs 42.0 h,  $P< 0.001$ ). There were no significant differences in postoperative complications between the two groups.

**Conclusions**

vNOTES and TU-LESS seem safe and feasible for hysterectomy, but vNOTES hysterectomy was more conducive to the postoperative rehabilitation of patients, with less trauma, less pain, and better cosmetic effects than TU-LESS hysterectomy. As an emerging surgical approach, more studies, including large sample, multicenter, randomized controlled trials, are needed to validate our findings.

**ABST-0106 - P\*008**

**Best Selected ePosters**

**Exploring the impact of surgical interventions and identifying risk factors for recurrence in stage I of borderline ovarian tumors**

*Kyung-Jin Min<sup>1</sup>, Sanghoon Lee<sup>2</sup>, Jae-Kwan Lee<sup>3</sup>, Seon Mi Lee<sup>2</sup>, Jiheum Paek<sup>4</sup>, Keun-Ho Lee<sup>5</sup>*

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**Background**

This research aimed to evaluate surgical intervention's influence on borderline ovarian tumors (BOTs) outcomes and identify contributing recurrence risk factors.

**Methods**

BOT patients at Korea University Anam Hospital (2006–2023) were classified based on recurrence. Surgical interventions were classified conservative, comprehensive, or staging surgeries. Each group's characteristics, surgical interventions, disease-free survival (DFS), overall survival (OS), and recurrence risk factors were compared and analyzed. Statistical analyses included student's *t*-test, chi-square test, Fisher's exact test, Kaplan-Meier analysis, and Cox regression analyzing using SPSS.

**Results**

Of 177 patients, 170 were in the no recurrence group, and seven were in the recurrence group. Four relapsed patients had a borderline recurrence, and three had a malignant transformation. The median follow-up period for all participants was 47 months. There were no significant differences in DFS and OS on surgical interventions. Increased risk of BOT recurrence was observed with positive washing cytology (adjusted hazard ratio (HR), 36.02; 95% confidence interval (CI), 6.798, 641.204;  $p = 0.003$ ) and intraoperative iatrogenic rupture (adjusted HR, 5.89; 95% CI, 1.003, 27.640;  $p = 0.046$ ), but no significant OS risk factors were identified.

**Conclusions**

In early stage BOT treatment, surgical intervention differences didn't affect outcomes, DFS or OS. Conservative, comprehensive, and staging surgeries are options based on patient age and fertility preservation. To reduce BOT recurrence risk, avoiding rupture during surgery and closely monitoring postoperative patient with positive washing cytology is crucial.



### **The Anatomical Variability of Obturator Vessels - Clinically Important Variations**

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Department of Anatomy and Center for Endoscopic- Surgical and Clinical Anatomy, Prague, Czech Republic

#### **Background**

The aim was to collect information about all variations concerning the obturator vessels and the *corona mortis* (CMOR) and to present the most surgically relevant types, their prevalence and calibre in order to provide a comprehensive overview mainly for clinicians. As published by Rogers et al., 13% of injuries due to surgical errors were attributed to “abnormal or difficult anatomy”.

#### **Methods**

Systematic review of literature with clinical implications

#### **Results**

The average incidence of the variant obturator artery (OA) was 26% with the aberrant OA being the most frequent type (the mean calibre 2.10 mm, SD = 0.35 mm). The overall incidence of the variant obturator vein (OV) was 55% (the mean calibre of 2.98 mm, SD = 0.56 mm). In 76.53% cases the source of the aberrant OA is the inferior epigastric artery, in 14.65% cases it stems directly from the external iliac artery. The aberrant OV most frequently drains into the external iliac vein (73.06%) and nearly 15% of these variants opens into the inferior epigastric vein. Moreover, in order to simplify the morphological classification and results of the study for clinical needs we present a comprehensive scheme of individual variation types.

#### **Conclusions**

The term *corona mortis* (crown of death) refers to the importance of this structure as high-risk hemorrhage may occur if iatrogenically injured. CMOR represents a vascular structure crossing the superior pubic ramus. The arterial *corona mortis* is present in 26% of cases, the venous variant even in up to 55%. Due to its possible calibre larger than 3 mm it represents a structure of high clinical importance.

The risk of CMOR injury is high during pelvic lymphadenectomy for gynaecological malignancies as well as in stress urinary incontinence or pelvic organ prolapse procedures (both laparoscopic and through laparotomy), e.g. minimally invasive midurethral sling technique, pectopexy or laparoscopic pudendal neurolysis for deep infiltrating endometriosis.

**ABST-0175 - P\*012**

**Best Selected ePosters**

### **Review of minimal invasive surgery in early-stage endometrial cancer- 3 years' experience**

*Elhami Ebeid<sup>1</sup>, Kerry Sargant<sup>1</sup>, Mounica Sivuni<sup>1</sup>, Tariq Alnajjar<sup>1</sup>, Mohammad Pasha<sup>1</sup>*

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#### **Background**

Uterine cancer is the 6<sup>th</sup> most common cancer in females worldwide. In the UK it is the 4<sup>th</sup> most common cancer in females and its incidence increases with obesity and age with the highest being seen in patients aged between 75-79. The 5-year survival rate is nearly 80% as most of these cancers are confined to uterus

Though traditionally laparotomy was the standard approach for management of all stages of endometrial cancer, it has now been replaced by minimally invasive techniques. It is noted that outcomes can be improved with involvement of specialists in surgery and adoption of enhanced recovery after surgery programme (ERAS), which is now considered the standard of care. More recently, robotic surgery, where available, is shown to be non-inferior to laparoscopy with respect to peri-operative morbidity, however, robotic surgery reduced the duration of hospital stay and blood loss.

Several studies have strongly suggested that survival after laparoscopic approach to endometrial cancer is similar to that of open surgery with fewer intra-operative complications, lesser duration of hospital stay and post operative morbidity with laparoscopy.

In our study we aim to establish adherence to guidelines in the management of early-stage endometrial cancer (EC) with minimal invasive surgery and to determine the conversion rate to open surgery. This study also aims to determine the intra operative and post operative complication rates with both laparoscopic and open approach along with duration of hospital stay.

#### **Methods**

Details of patients with early-stage endometrial cancer between January 2021 to January 2024 were collected from operative database, Excell sheet was created and results analysed.

#### **Results**

Out of 110 patients, 21 were excluded from the study as 2 had VH with incidentally detected EC on histology, 9 had Surgery at a tertiary centre, and 11 had treatment with Mirena for various causes including lack of fitness for surgery and fertility sparing management. 65 patients (74.7%) underwent Laparoscopic surgery, 21(24.13%) underwent open surgery. 6 out of the 21 open surgeries were laparoscopies converted to open surgery for either control of bleeding, difficult access or dense adhesions. Post operative stay was shortest following laparoscopy with 36 (55.3%) patients staying for only one night as compared to 3 (14.2%) in the open group.

Of note the complication rate was noted to be higher in the open group

#### **Conclusions**

Laparoscopic approach remains safe and effective way in management of early endometrial cancer

Patient selection for minimal invasive approach continues to be key in regard to surgical risk profile and motivation to engage with enhanced recovery

## ABST-0210 - P\*014

### Best Selected ePosters

#### Using warmed carbon dioxide with Endoflator 50® reduces fogging of the laparoscopic lens – a randomized, controlled monocentre trial

*Karen Schurig<sup>1</sup>, Meletios Nigdelis<sup>1</sup>, Erich-Franz Solomayer<sup>1</sup>, Bashar Haj Hamoud<sup>1</sup>, Gregor Leonhard Olmes<sup>1</sup>*

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#### Background

The fogging of the laparoscopic lens is a common problem in minimally invasive surgery, caused by the physiologically higher temperature and the humidity of the abdominal cavity compared to the surroundings. Maintaining a clear field of vision is fundamental in laparoscopic procedures not only for patient safety, but also for efficacy by improving precision and thereby reducing operative time. This investigator initiated, randomized, controlled trial aimed to assess the effectiveness of the Endoflator 50® (KARL STORZ SE & CO. KG), insufflating preheated carbon dioxide, in reducing lens fogging compared with conventional insufflation. Furthermore, we examined if the Endoflator 50® would reduce the required effort to clean the laparoscopic lens.

#### Methods

Between October 2022 and July 2023, a total of 72 patients were recruited at Saarland University Hospital, Department of Obstetrics, Gynecology and Reproductive Medicine, Homburg, Saarland, Germany. They underwent randomization to group 1 (Endoflator 50®) (n = 35) and group 2 (controls) (n = 37). The primary outcome measure was the severity of laparoscopic lens fogging 1-, 10- and 30-min during surgery. The severity was evaluated by two blinded attending physicians on a 10-point visual clarity scale ranging from 0 (clearest) to 10 (foggiest). The secondary outcome measures were the number of lens cleaning, and the total time required to clean the lens. A p value of < 0.05 was considered statistically significant. Jamovi (Version 2.3.28.0) was used for the statistical analysis. The study protocol was approved by the responsible ethics committee and registered in the German Register of Clinical Trials (DRKS00033789).

#### Results

The mean age was 41, (group 1: 41 years, group 2: 39 years, p-value: 0,821), with no significant difference between the groups. Other baseline characteristics including history of abdominal surgery, comorbidity, surgical procedure, ASA classification, and total operating time were also not statistically different between the groups. The most common operation conducted was total laparoscopic hysterectomy. The severity of lens fogging was significantly decreased 1, 10 and 30 min in group 1 group compared to group 2 (all, p < 0.001). The number of lens cleanings and total time required were significantly lower in the Endoflator 50® group than in controls (all, p ≤ 0.001).

#### Conclusions

The use of the Endoflator 50®, KARL STORZ SE & CO. KG leads to a significant reduction of fog and therefore also significantly less cleaning effort, contributing to a safer and more efficient procedure.

**ABST-0275 - P\*016**  
**Best Selected ePosters**

**Caesarean section scar: histological analysis on hysterectomy specimen**

*Constance Maudot<sup>1</sup>, Elodie Debras<sup>2</sup>, Perrine Capmas<sup>2</sup>*

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**Background**

In recent years, caesarean section (CS) rate has risen worldwide. Complications associated with CS scars has risen too, such as scar dehiscence and uterine rupture. Uterine healing is a complex phenomenon still poorly understood. The aim of this study is to deepen our knowledge by carrying out a comparative histological analysis of healthy and scarred uterus.

**Methods**

Women who underwent hysterectomy for benign pathology were included prospectively and divided into two groups: previous CS (group 1) versus control (group 2). Hysterectomy specimens were analyzed histologically and immunohistochemically.

**Results**

Sixty women were included: 30 women per group. In group 1, only 19 women could be analysed, total thickness at the thinnest site of the scar is significantly thinner (4.34mm [2.76-9.45]) than that of the adjacent healthy isthmus (12.70mm [10.45-14.95]) ( $p < 0.001$ ). It is also thinner than in group 2 (13.45mm [11.03-16.90]) ( $p < 0.001$ ). Myometrial thickness within the scar in group 1 was also thinner (1.14mm [0.30-2.69]) than that of the adjacent healthy isthmus (8.90mm [8.18-10.08]) ( $p < 0.001$ ) and that in group 2 (10.00mm [8.38-13.35]) ( $p < 0.001$ ). There was a significant increase in fibrosis in the scar (55.01% [35.71-63.46]) compared with adjacent tissue (17.41% [15.08-24.78]) ( $p < 0.001$ ) and with healthy uterus (33.91% [18.93-46.53]) ( $p=0.006$ ).

**Conclusions**

In uterus with previous CS scar, total thickness of the wall and thickness of the myometrium are reduced, and proportion of fibrosis is significantly increased. This study first shows that the thickness of the wall remains reduced in scarred uterus, even very long after CS. Further studies are currently in progress to understand its pathophysiology within the uterus using animal models.

## **The Intricate Management of Persistent Retained Products of Conception**

*Dhanuson Dharmasena<sup>1</sup>, Guldzhan Vorona<sup>1</sup>, Nadia Sharmin<sup>1</sup>, Rhonda Flemming<sup>1</sup>*

*<sup>1</sup>Whittington Hospital, Gynaecology and Minimal Access Surgery, London, United Kingdom*

### **Background**

Retained products of conception (RPOC) is a common but challenging problem. It can pose a significant risk in 1-6% of pregnancies. Immediate consequences of RPOC include persistent vaginal bleeding, abdominal pain and pelvic infection. Moreover, long term complications include the formation of intrauterine adhesions, with the potential creation of Asherman syndrome resulting in adverse reproductive outcomes caused by subfertility, chronic pelvic pain, menstrual disturbances and severe pregnancy complications such as abnormal placentation including the placenta accreta spectrum.

The absence of a comprehensive, evidence-based guideline for managing persistent retained products emphasises the need for addressing this clinical challenge. At Whittington Hospital the utilisation of the TruClear™ Hysteroscopic Tissue Removal system has been proposed in the management of persistent products of conception.

### **Methods**

This quality improvement project (QIP) utilised electronic data collected from the Obstetric Risk Management Information System (ORMIS), Electronic Patient Records (EPR), and the Integrated Clinical Environment (ICE) database system retrospectively.

The data collected patients who underwent treatment for persistent (RPOC) between January 2022 and April 2024. A total of 21 patients were included, with RPOC following miscarriage management or having placental remnants after caesarean section or vaginal delivery.

### **Results**

Our QIP revealed that the management of RPOC using the Truclear produced positive outcomes, as supported by histopathological findings. Among the 21 patients analysed, the age varied from 28 to 44 years. The gestational ages ranged from 5 to 14 weeks. Notably, outpatient hysteroscopy was performed in 11 cases, while ten patients underwent the procedure under the general anaesthesia.

26.5% of patients had previously undergone medical management of miscarriage which had failed. 31% of patients previously had >1 conventional surgical management of miscarriage (with/without ultrasound guidance) before they were managed via Truclear resection. 14.5% of patients had expectant management of miscarriage which was unsuccessful. The remaining 28% of patients who had Truclear management were patients that had a term delivery but represented with persistent placental tissue.

Transvaginal sonography (TVS) with or without colour Doppler proved valuable in diagnosing RPOC, with 90% of cases showing hyperechoic vascular lesions. Furthermore, our findings demonstrated an 80% concordance rate between hysteroscopic findings and histopathological reports, underscoring the diagnostic accuracy and therapeutic efficacy of utilising the TruClear™ system for management of RPOC. These results emphasize the importance of proper diagnostic modalities and targeted interventions in the successful resolution of RPOC, ultimately improving patient outcomes and care.

## **Conclusions**

This form of treatment proves to be superior when compared to conventional blind evacuation procedures. Using a tissue removal device allows greater precision of surgery, optimises operating time, reduces risk of uterine perforation and facilitates complete excision of retained products of conception resulting in a restored normal cavity.

At present, the main barriers for its widespread use includes staff training and costs.

**ABST-0471 - P\*026**

**Best Selected ePosters**

### **High-Intensity Focused Ultrasound (HIFU) Treatment of Uterine Leiomyomas and Adenomyosis: Ex-vivo Feasibility Trials**

*Manon Basso<sup>1</sup>, Benoit De La Fournière<sup>2</sup>, Charles André Philip<sup>3</sup>, Gil Dubernard<sup>1</sup>, David Melo De Lima<sup>4</sup>*

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*<sup>4</sup>LabTau - INSERM laboratory, Acoustic of Ultrasound, Lyon, France*

#### **Background**

Uterine leiomyomas are the main organic cause of metrorrhagia in premenopausal women. They represent the primary indication for hysterectomy. Adenomyosis, is the source of pelvic pain in 30% of cases and menometrorrhagia in 50 to 60% of cases. The effectiveness of treatment by HIFU (High-Intensity Focused Ultrasound) on uterine leiomyomas and adenomyosis, guided by MRI or ultrasound, is documented. However, it varies widely depending on the location and volume of the lesion, the type of ultrasound transducer, and the treatment time. The LabTAU has developed a new HIFU treatment device allowing the treatment of large volumes. To perform HIFU treatments, it is necessary to know the acoustic properties of the exposed tissue. However, attenuation data concerning fibroids and adenomyosis are scarce, very imprecise. The objective of this study was to define the acoustic properties of leiomyomas and adenomyosis, and to perform ex vivo treatment of uterine leiomyomas and adenomyosis using this toric device.

#### **Methods**

This non-interventional, monocentric study included 34 patients for whom operative specimens of uterine leiomyomas and adenomyosis were collected at the University Hospital of Croix Rousse. Measurement of acoustic properties of these samples were performed and, feasibility tests ex vivo with simulation of the pelvic wall using porcine chest and adjustment of HIFU firing parameters to the attenuation data obtained were then carried out.

#### **Results**

The mean attenuation coefficient of the tissues was, respectively for leiomyomas, for adenomyotic uterus, and for healthy uterus, 0.18 (+/- 0.11) Np.cm-1.MHz-1, 0.20 (+/- 0.08) Np.cm-1.MHz-1, and 0.07 (+/- 0.03) Np.cm-1.MHz-1. There was a significantly different attenuation coefficient between healthy uterus and adenomyosis 0.20 (95% CI 0.14-0.27) vs 0.07 (95% CI 0.04-0.10) p = 0.0014. The same was true for leiomyomas and healthy uterus 0.18 (95% CI 0.15-0.22) vs 0.07 (95% CI 0.04-0.10) p < 0.0001.

18 operative specimens were included for ex vivo tests. 68 HIFU firings were performed on 12 leiomyomas, and 6 uteri, of which 5 ultimately presented adenomyosis. After adjustment of HIFU firing parameters, on the first firings, we performed 31 firings which resulted in 14 HIFU lesions on fibroids and 2 on adenomyotic uterus. The average size of the lesions on fibroids and adenomyotic uterus was respectively 16mm/16mm and 16mm/19mm. The muscular wall was affected 6 times and the uterus once. Four sequences of firings were subsequently performed to juxtapose the lesions to obtain a larger treatment volume. On the 2 leiomyomas and 2 adenomyotic uteri treated, we obtained lesions measuring 30mm in height and 30mm in width on average.

## **Conclusions**

The attenuation coefficients of leiomyomas, adenomyotic uterus, and healthy uterus were  $0.18 (\pm 0.11)$  Np.cm<sup>-1</sup>.MHz<sup>-1</sup>,  $0.20 (\pm 0.08)$  Np.cm<sup>-1</sup>.MHz<sup>-1</sup>, and  $0.07 (\pm 0.03)$  Np.cm<sup>-1</sup> respectively. The toric HIFU probe allowed us to perform reproducible HIFU firings, on leiomyomas and adenomyosis.



## **Unveiling the Impact of Anticoagulant and Antiplatelet Medication on Hysteroscopy and Polypectomy Outcomes in Postmenopausal Bleeding Patients**

*Rabia Haq Shaikh<sup>1</sup>, Sangeetha Palaparthi<sup>2</sup>, Jayne Murdock<sup>3</sup>*

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### **Background**

In this retrospective study, we focused on postmenopausal bleeding patients taking anticoagulants and antiplatelet therapy during hysteroscopic polypectomies. We looked at the advice given to patients before their appointments with the aim to generate separate pathway for these patients and investigate if medications need discontinued prior to these procedures. The goal was to ensure patient safety and minimize the risk of bleeding complications and to provide standard care to all these patients. We also assessed the uniformity of medication management and identified areas for improvement.

### **Methods**

We conducted our study at NHS Ayrshire and Arran, focusing on patients attending postmenopausal bleeding clinics undergoing hysteroscopic polypectomies, using Bigatti devices in outpatient settings and hysteroscopic polypectomies under general anaesthesia. We collected patient data from January to December 2023 using TRAK and the Clinical portal. Details included age, type of anticoagulant/antiplatelet agents, complications and advice given was collected.

### **Results**

In the outpatient PMB clinics: - Out of 1670 patients, 6.3% (106 patients) were on anticoagulant or antiplatelet medication. Among them, 63.2% (67 patients) had hysteroscopy, 10.4% (11 patients) had polypectomy, and 2 (18.18%) had post-polypectomy bleeding. 12.3% (13 patients) taking the above medications were referred for further operative procedures.

For outpatient Bigatti: - Out of 54 patients, 7.4% (4 patients) were on anticoagulant or antiplatelet medications- 2 on antiplatelet medications and 2 on DOACs (Edoxaban and Apixaban) -only 1 patient (25%) on Apixaban was advised to stop the medications. All 4 patients had polypectomy without immediate complications or late complications.

Polypectomies under general anaesthesia: - Out of 170 patients, 5.9% (10 patients) were on anticoagulant or antiplatelet medications - 8 were on clopidogrel (75mg) and 2 on Apixaban. Only 5 of the 10 (50%) were advised (by anaesthetists) to stop medications before the procedure.

### **Conclusions**

We evaluated medication management, identified areas for improvement to generate pathways for discontinuing these medicines if needed before the procedures to provide uniformity. Our findings contribute to patient safety by minimizing bleeding risks. Clear and consistent advice to patients on

these medications is crucial. Implementing the guidelines in practice will enhance care for postmenopausal bleeding patients. Further audit can assess long-term outcomes. Even though the numbers are small given that outpatient Bigatti procedure commenced in our hospital from last year and numbers are minimal at present. If we generate guidelines at this stage, we can develop standardized practice which is safe for patients. We hope our findings guide future practice and improve patient care.

## The Role of Barbed Suture in Laparoscopic Myomectomy: A Systematic Review and Meta-analysis

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### Background

Barbed sutures, featuring filament protuberances and self-anchoring capabilities, revolutionize wound closure methods, enhancing surgical efficiency and patient outcomes across diverse specialties. This systematic review and meta-analysis evaluate the efficacy, safety, and feasibility of barbed absorbable sutures versus conventional sutures in laparoscopic myomectomy, with a focus on optimizing surgical techniques and patient care.

### Methods

The systematic review gathered data from PubMed, Scopus, Web of Science and Cochrane databases up to June 2023. Pooled mean differences (MD) were calculated for continuous variables, while pooled odds ratios (OR) were used for dichotomous variables, employing the random-effects model.

### Results

The review identified 25 relevant studies, with 19 forming the basis for meta-analysis, including 7 randomized controlled trials. The barbed suture method exhibited statistically significant superiority over traditional suturing techniques in laparoscopic myomectomy, presenting notable enhancements in parameters such as duration of suturing [531 participants, MD -5.82 minutes, 95% CI (Confidence Interval) -7.14 to -4.50, P (P-value) < 0.00001], total operative time (1812 participants, MD -9.78 minutes, 95% CI -14.43 to -5.13, P < 0.0001), suturing difficulty [353 participants, MD -1.39 on the VAS (Visual Analogue Scale), 95% CI -2.18 to -0.60, P = 0.0005], intraoperative blood loss (1487 participants, MD -43.46 mL, 95% CI -73.19 to -13.73, P = 0.004), and haemoglobin drop (1614 participants, MD -0.34 mg/dL, 95% CI -0.62 to -0.06, P = 0.02). No significant difference was found regarding intraoperative complications (1777 participants, OR 0.33, 95% CI 0.10 to 1.08, P = 0.07), postoperative complications (2204 participants, OR 0.73, 95% CI 0.45 to 1.17, P = 0.19), postoperative pain at 24 hours after surgery (469 participants, MD -7.71 on the VAS, 95% CI -17.42 to 2.00, P = 0.12), length of hospitalization (1533 participants, MD -0.06 days, 95% CI -0.21 to 0.09, P = 0.42), and postoperative adhesions (76 participants, OR 0.46, 95% CI 0.16 to 1.34, P = 0.16). In terms of postoperative pregnancy and delivery outcomes, the utilization of barbed suture was statistically significantly associated with a higher likelihood of caesarean section (205 participants, OR 2.72, 95% CI 1.12 to 6.61, P = 0.03) compared to conventional suture. In contrast, there was no significant discrepancy concerning the odds for pregnancy achievement (390 participants, OR 0.81, 95% CI 0.55 to 1.21, P = 0.31), miscarriage (258 participants, OR 1.34, 95% CI 0.64 to 2.78, P = 0.44), preterm labour (175 participants, OR 1.70, 95% CI 0.54 to 5.28, P = 0.36), and placenta-associated pregnancy complications (175 participants, OR 2.26, 95% CI 0.58 to 8.76, P = 0.24).

## **Conclusions**

Barbed suture notably decreased operative and suturing duration, suturing difficulty, blood loss, and haemoglobin decline. Additional trials are required to clarify perioperative complications and pregnancy outcomes.

**Study of the usefulness of the MRI jelly method in the diagnosis of intestinal endometriosis**

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**Background**

The MRI jelly method is an MRI imaging technique developed in our department as a diagnostic method for deep endometriosis of the Douglas fossa. The method is also useful for the diagnosis of intestinal endometriosis and for determining treatment strategies. In the present study, we aimed to understand the characteristics of the MRI jelly method in intestinal endometriosis.

**Methods**

We conducted a retrospective study of 31 patients diagnosed with intestinal endometriosis at our hospital between January 2009 and December 2021, in whom the MRI jelly technique was performed.

**Results**

The mean age of the patients at their first visit was 35 (22-44) years and 23 (74%) were heifers. The main complaints were dysmenorrhoea in 16 (51.6%), haematuria and defaecation pain in 8 (29%) and analgia in 4 (12.9%). Palpable mass lesions on rectal examination were found in 4 cases (12.9%).

MRI jelly findings showed a rectal mass in 22 cases (70.9%), with an average tumour diameter of 26 mm (2-45); thickening of the Haustra was found in 15 cases (48%) and a protrusion of the anterior rectal wall in 20 cases (64.5%), leading to the diagnosis of bowel endometriosis by MRI jelly. The majority of lesions were found in the Rs-Ra region, with 4 (12.9%) in the Rb region. Surgery was performed for intestinal endometriosis in 3 cases (9.6%), and all lesions were in the Rs-Ra region. All underwent laparoscopic low anterior resection, one underwent low anterior resection and ileocecal fistula extension, myomectomy and Douglas fossa release. Of the 28 (90.3%) patients who did not undergo surgery, all except those who wished to have a baby were treated with hormonal therapy with DNG or LEP and had a good course.

**Conclusions**

Low anterior resection is required for the removal of the endometriosis lesion, and endometriosis is a difficult surgical procedure due to the high number of cases with deep endometriosis. The MRI jelly technique may contribute to the diagnosis of intestinal endometriosis and may be useful in the selection of appropriate treatment.

**ABST-0658 - P\*120**

**Best Selected ePosters**

**Predictive factors for prolonged hospital stay post hysterectomy for benign uterine pathology: a multicentric prospective study**

*Sofia Barbera<sup>1</sup>, Tommaso Meschini<sup>1</sup>, Filippo Maria Di Flamminio<sup>1</sup>, Anna Giudici<sup>1</sup>, Fabio Ghezzi<sup>1</sup>, Jvan Casarin<sup>1</sup>*

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**Background**

Post-surgical hospitalization length is an important quality parameter of surgery. Prolonged hospital-stay increases the risk of infections, physical deconditioning, psychological distress, and financial burden. This study aims to identify the predictors of prolonged hospitalization beyond 2 days in patients undergoing hysterectomy for benign indication.

**Methods**

In this prospective multicentric study we enrolled consecutive patients who underwent hysterectomy for benign disease in 17 Italian hospitals, between June 2023 and March 2024. Length of stay (LOS) of more than 2 days was defined as prolonged hospitalization. Patient demographic characteristics, comorbidities and surgical details were collected. Factors associated with prolonged hospitalization were assessed using univariate analysis; predictors of prolonged hospital-stay were determined through multivariable logistic regression.

**Results**

A total of 1,677 patients were included, of which 807 underwent laparoscopic hysterectomy, 127 robotic hysterectomy, 453 vaginal hysterectomy, and 290 abdominal hysterectomy. The median age of patients was 55 years (range 22-89). The median length of stay was 3 days (range 0-108), and 735 patients (43.83%) required a prolonged hospitalization.

Multiple factors were significantly associated with prolonged hospitalization in the univariate analysis, including age ( $p = 0.01$ ), BMI  $> 30 \text{ kg/m}^2$  ( $p = 0.005$ ), ASA score ( $p < 0.001$ ), Charlson Comorbidity Index (CCI) ( $p = 0.009$ ), surgical approach ( $p < 0.001$ ), uterus weight  $> 500 \text{ g}$  ( $p < 0.001$ ), type of hysterectomy performed ( $p = 0.001$ ), estimated blood loss  $> 500 \text{ ml}$  ( $p < 0.001$ ), and conversion to open surgery ( $p < 0.001$ ). The rate of patients who underwent surgery for fibromatosis was significantly higher in the prolonged LOS cohort (52.65% vs. 42.14%,  $p < 0.001$ ), while prophylactic surgery ( $p = 0.01$ ) and prolapse surgery ( $p = 0.004$ ) were significantly associated with a LOS of less than 2 days.

The multivariable analysis revealed significantly increased odds ratios (OR) for different surgical approaches compared to laparoscopy: 35.30 for open surgery (95% CI: 21.71-57.40,  $p < 0.001$ ), 2.08 for vaginal surgery (95% CI: 1.20-3.60,  $p = 0.008$ ), and 7.91 for robotic surgery (95% CI: 4.58-13.64,  $p < 0.001$ ). Radical hysterectomy (vs. total hysterectomy) showed a significantly increased risk of prolonged hospitalization (OR: 29.3, 95% CI: 10.31-83.16,  $p < 0.001$ ). CCI showed a direct correlation with an increased likelihood of a prolonged hospitalization (increased OR per unit: 1.31; 95% CI: 1.09-1.59,  $p = 0.002$ ).

## **Conclusions**

This study highlights several key factors associated with prolonged hospitalization following hysterectomy for benign disease. Patients undergoing open abdominal, robotic, and vaginal surgery had significantly higher odds of extended hospitalization compared to those who underwent laparoscopic procedures. Additionally, a higher CCI and the type of hysterectomy performed played critical roles in influencing hospitalization. These results underscore the importance of considering patient-specific factors and surgical approaches when planning hysterectomies to minimize hospital-stay and improve postoperative outcomes.

### **Robotic approach for the treatment of gynaecological cancers recurrences: a ten-year single-institution experience**

*Camilla Certelli<sup>1</sup>, Luca Palmieri<sup>1</sup>, Claudio Lodoli<sup>2</sup>, Alex Federico<sup>1</sup>, Riccardo Oliva<sup>1</sup>, Giovanni Scambia<sup>1</sup>, Valerio Gallotta<sup>1</sup>*

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#### **Background**

Although the management of gynaecological cancers recurrences may be challenging, due to the heterogeneity of recurrent disease, influenced by several factors including anatomical site of relapse, infiltrative pattern, primary treatment(s), chemo- and/or radio-sensitivity, and clinical characteristics of patients, secondary cytoreductive surgery through minimally invasive approach is gaining increasing interest in recent years. However, few cases of robotic surgery are reported. The aim of this work is to present a descriptive analysis of gynaecological malignancies recurrences in our institution and the choice of a surgical treatment by robotic approach.

#### **Methods**

We performed a retrospective review and analysis of data of patients who underwent robotic surgery for recurrent gynaecological malignancies at Catholic University of the Sacred Heart in Rome (Italy) from January 2013 to January 2024.

#### **Results**

In the study period 54 patients underwent successful robotic cytoreductive surgery. The median age was 63 years (range 43-84) and 20 patients (37%) were older than 65; the median BMI was 33 kg/m<sup>2</sup> and most of the patients (59%) were obese (BMI>30). All the patients experienced a single site recurrence, except for the lymph node recurrences in which more lymph node stations could be involved. In 12 cases (22%) the relapse presented was the second or third relapse. The most frequent patterns of recurrence were represented by lymph nodes (41%), followed by peritoneal (26%), pelvic (22%) and parenchymal (11%). In all patients complete cytoreduction was achieved. In 29 patients (54%) the surgical field was previous treated (surgery and/or radiotherapy). The median operative time was 270 min (range 80-660) and the median estimated blood loss was 100 ml (range 50-1000). There were 2 (3.7%) intraoperative complications, managed endoscopically; 10 early postoperative complications (18.5%), of which 4 were grade 3, and 3 late postoperative complications (5.5%), of which 2 were grade 3. Most of the early (72.7%) and all the late postoperative complications were related to pelvic exenteration procedures. The 2-year progression-free-survival and overall survival were, respectively, 39.8% and 72.3%. Eight patients (35%) underwent further surgical procedures for the treatment of the new recurrence.

#### **Conclusions**

In the era of personalized medicine, the integration of different kinds of treatments, among which surgery through minimally invasive approach, may prolong survival and implement therapeutic possibilities. Robotic approach in the treatment of recurrent gynaecological cancers should be



considered in selected patients with oligometastatic disease, in high-volume centres with expert surgeons, especially in obese patients.

**ABST-0736 - P\*040**  
**Best Selected ePosters**

**Clinical and ultrasound characteristics of ovarian cancers arising from mature cystic teratoma**

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**Background**

The aim of the study is to describe the clinical and ultrasound features of malignant tumours arising from mature cystic teratoma (MCT), a rare condition.

**Methods**

This was a retrospective multicentre study of patients with a histologically confirmed malignancy arising from MCT. Gray-scale and colour Doppler images were retrieved from 22 patients examined between 2015 and 2023. All lesions were described using the terms of the International Ovarian Tumour Analysis (IOTA) group. Clinical data were also collected.

**Results**

Squamous cell carcinoma was detected in 11 (50%) tumours, carcinoid tumours in 6 (27.3%), and adenocarcinomas in 5 (22.7%) tumours. All lesions were unilateral. The median largest diameter was 110 mm (range 21-310 mm). 8 tumours (36.4%) were classified as unilocular cysts with mixed content; 4 lesions (18.2%) were classified as multilocular tumours with "low-level" (2/4), or mixed (2/4) content; 6 tumours (27.3%) were described as unilocular-solid tumours with mixed content; two tumours (9.1%) were described as multilocular-solid tumours, with "low-level" and mixed content respectively; two lesions were purely solid. All solid components were described with inhomogeneous ecostructure. Colour Doppler examination predominantly showed a moderate vascularization (40.9%).

**Conclusions**

This is the first study describing the ultrasonographic appearance of cancers arising from MCT. Most are large unilateral adnexal masses, cystic with a solid component or purely solid, moderately vascularized, with a heterogeneous echogenicity of the solid component.

**ABST-0290 - P087**

**Best Selected ePosters**

### **Gender equity among gynaecological surgeons is still a myth: a national survey in Italy**

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#### **Background**

Women's participation in the medical and surgical fields is undergoing rapid growth, with women now constituting 30% of the residents in surgical areas and the majority of residents in Obstetrics and Gynaecology. However, despite this progress, existing literature continues to underscore the persistence of discrimination and injustice within the surgical sphere.

Objective: this study seeks to examine the status of female gynaecological surgeons in Italy concerning both discriminatory practices and the availability of opportunities of improvement within the operating theatre.

#### **Methods**

The survey was conducted from November 1 to December 31, 2020, gathering data from 219 female gynaecologists across Italy. The survey focused on various professional aspects, particularly surgical practice. We collected data concerning subjective satisfactions by respondents. Satisfaction was evaluated with a 5-points LIKERT scale. Data were described calculating mean, median or frequency.

#### **Results**

This sub-analysis includes these 207 respondents. Among respondents, 47% reported having children, while 31% opted out of parenthood due to professional reasons. Nearly half of them were trainees (42%). Despite a considerable workload (with a mean working week of 45 hours), 96% of the participants reported spending less than half of their worktime in the operating theatre. They performed a median of 2 surgical operations per week, compared to 5 for male counterparts. Despite challenges, 65% expressed a commitment to their career path.

#### **Conclusions**

Efforts to address gender bias, promote work-life balance, and enhance female leadership representation are essential. These findings emphasize the need for systemic changes to create a supportive environment for female gynaecologists. Further research with broader sampling is warranted to fully understand and address these challenges.

**Association of anti-mullerian hormone (AMH) levels with treatment efficacy of laparoscopic ovarian drilling (LOD) for polycystic ovarian syndrome.**

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**Background**

Laparoscopic ovarian drilling (LOD) is an effective treatment for drug-resistant polycystic ovary syndrome (PCOS), but it is difficult to predict in advance which patients will benefit from LOD and there are concerns about postoperative ovarian dysfunction. In this study, we analysed the outcomes of LOD at our hospital, including the relationship with anti-mullerian hormone (AMH) levels.

**Methods**

Among infertility patients with drug-resistant PCOS, 17 patients who underwent LOD between 2011 and 2023 were included in this study. Intraoperative drilling counts, pre- and postoperative LH, LH/FSH, and AMH trends, as well as postoperative ovulation rate and pregnancy rate were examined retrospectively. The surgical procedure for LOD in our clinic is drilling the hole in incision mode using a needle monopolar.

**Results**

Median (range) age was 31 (27-38) years, BMI was 21.6 (17.2-25.8) kg/m<sup>2</sup> and the number of intraoperative unilateral drillings were 56 (30-100). The median hormone levels before and after surgery were LH: 16.8(5.7-27.2) to 7.2(5.9-11.6) mIU/ml, AMH: 19.9(6.3-43.4) to 5.9(1.6-36.9) ng/ml. All values decreased significantly postoperatively. Postoperative ovulation was observed in 12 cases (70.6%). Eleven pregnancies (64.7%) were achieved, and 7 (41.2%) were spontaneous pregnancies. Comparing the postoperative AMH levels according to whether the patient had a spontaneous pregnancy or not, the AMH level was significantly lower in the pregnant group (5.5 ng/ml) than in the non-pregnant group (11.9 ng/ml). Furthermore, the AMH change before and after surgery showed a positive correlation with the number of drillings.

**Conclusions**

LOD is very useful for PCOS, suggesting that lowering AMH to the appropriate range may contribute to improving the therapeutic efficacy of LOD. The preoperative AMH value could also be an indicator to determine the number of intraoperative drillings.

## **Not presented**

**ABST-0021 - P\*002**

**Best Selected ePosters**

### **Incidence and risk factors for incidental discovery of preinvasive or invasive uterine lesions during sacrocolpopexy for genital prolapse.**

*Sarah Marcelle<sup>1</sup>, Michelle Nisolle<sup>1</sup>, Katty Delbecque<sup>2</sup>, Frederic Goffin<sup>1</sup>, Laurent DeLandsheere<sup>1</sup>*

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#### **Background**

This study aimed to describe the rates of unanticipated premalignancy and malignancy at the time of hysterectomy performed for pelvic organ prolapse and to determine the risk factors for unanticipated pathology.

#### **Methods**

A retrospective monocentric study was conducted on all cases of sacrocolpopexy with supracervical or total hysterectomy performed for pelvic organ prolapse from 2010 to 2023. The collected data were analysed, including clinical history, diagnostic evaluations, surgical procedures performed, and histopathological findings.

#### **Results**

A total of 235 women were included in this study. All these patients had undergone a reassuring preoperative gynaecological assessment, including at least a cervical-vaginal smear and a pelvic ultrasound. Fifteen cases of simple endometrial hyperplasia with atypia, one endometrial carcinoma and 3 cyto-nuclear atypia of the tubal epithelium were found. The first two patients had undergone uterine morcellation without the use of an endobag. None of the patients required surgical re-intervention. No recurrence or malignant transformation was reported. Some risk factors for occult endometrial malignancy have been identified, such as older age, excessive BMI, and the presence of metrorrhagia in a postmenopausal patient.

#### **Conclusions**

In this study, the rates of unanticipated premalignant or malignant lesions at the time of hysterectomy performed for pelvic organ prolapse were 8,08% (19/235). Our results highlight the relevance of an optimal preoperative gynaecological assessment with particular attention to high-risk patients and emphasize the importance of avoiding intra-abdominal morcellation without the use of an endobag.

## Gynaecologists' Practices in Inquiring about Sexual Harassment in the Netherlands: a cross-sectional study

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### Background

Sexual harassment is a major problem in the Netherlands. 53% of Dutch women have experienced sexual harassment in their lives, while the Dutch Center of Sexual Violence indicates that sexual violence and harassment is often not recognized by healthcare professionals. Literature showed women with a history of sexual violence were at 42% higher risk of developing gynaecological symptoms, as abnormal menstrual bleeding and urine incontinence. The multifactorial cause of gynaecological symptoms is challenging, explaining why the link with a history of sexual violence is sometimes neglected. As a result, women seeking gynaecological care for symptoms from a history of sexual violence are streamlined to receive routine symptomatic treatment, which may be inadequate to address the underlying cause of their symptomatology and increase the risk of misdiagnoses and unnecessary treatment. To our knowledge there is no standardized way Dutch gynaecologists inquire about negative sexual experiences during a consultation. Our study aims to examine the current practice for identifying patients' sexual harassment within Dutch gynaecology clinics, along with an exploration of the factors that aid or hinder this screening process.

### Methods

In this population-based cross-sectional study, an expert panel developed a 32-item web-based questionnaire and contains 23 closed and 9 open questions in four domains: 1) demographics 2) knowledge and training 3) method of inquiring sexual harassment 4) barriers and facilitators of inquiring sexual harassment.

### Results

246/1531 (16%) completed questionnaires were returned (179 specialists and 67 residents). A total of 77/239 (32.2%) of respondents feel they often inquire about sexual harassment of their patient during a first consultation. 175/246 (71%) respondents feel competent to inquire sexual harassment. However, 143/246 (58%) of respondents did never receive specific training on this topic and 106/223 (48%) would like to improve skills (e.g. communication and follow-up after inquiring sexual harassment). Conducting gynaecological examinations was the primary motivator for inquiring about sexual harassment in 96/246 cases (39%) as opposed to investigating any potential correlation with gynaecological complaints, which accounted for 82/246 cases (33%). The main facilitators of inquiring sexual harassment were a history of domestic violence 193/222 (86%), general signs of reserved attitude 184/222 (83%) or non-verbal 216/222 (97%) or verbal expression of restraint to gynaecological examination 217/220 (99%). The main barrier reported by the respondents was time restriction. Subgroup analysis showed that gynaecologists feel more competent than residents to discuss sexual harassment (Odds Ratio 2.73; 95% Confidence Interval [1.51-4.95]).

## **Conclusions**

Dutch gynaecologists feel competent to discuss patients' sexual harassment during a consultation but would like to be trained on the subsequent steps to take.

## Ureteral endometriosis : A rare cause of silent recurrent of hydroureteronephrosis

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### Background

Ureteral endometriosis is a rare condition but can lead to serious complications such as urinary tract obstruction and kidney dysfunction. We present the case of a 39-year-old woman with right upper quadrant pain, ultimately pathological end diagnosed with ureteral endometriosis.

### Methods

This patient is a 39-year-old, gravida 2, parity 1 individual who presented with progressively worsening right upper quadrant and right flank pain for the past 12 years. Reviewing her medical records revealed a history of grade 4 hydronephrosis in the right kidney during pregnancy, necessitating the placement of a double J catheter. However, post-pregnancy, there was no urological follow-up. Renal ultrasound demonstrated pelvic AP diameter of 33 mm in the right kidney with dilatation of the right ureter. Additionally, a 2 cm cystic lesion in the right ovary and a 3 cm posterior myoma were identified. Abdominal pelvic tomography (CT) revealed a stricture in the course of the right ureter. A decision was made for surgical diagnostic laparoscopy. Initially, a double J catheter was inserted into the right ureter by a urologist. Intraoperatively, the ureter was observed to narrow in the pelvic sidewall before dilating. Laparoscopic exploration confirmed no organ compression was observed. Further exploration of the right retroperitoneal space revealed excision of the peritoneum entirely on the right parametrium. Subsequently, the surgery was concluded. Pathological examination revealed endometriotic foci within the peritoneal tissue excised from the right parametrium. The double J stent was removed three weeks postoperatively. Follow-up with abdominal CT and renal ultrasound showed complete regression of right hydroureteronephrosis with persistent normal renal function.

### Results

Urinary endometriosis is a rare manifestation of a common disease, the incidence of genitourinary involvement ranges from 1% to 3% most commonly affects women between the ages of 25 and 40 years. More than half of the patients report dyspareunia, dysmenorrhea, and pelvic pain. This diagnosis could be suggested preoperatively in only 40% of patients, as shown in one study. For endometriosis diagnosed preoperatively or discovered incidentally during intraoperative surgery, resection is performed to reduce obstruction. Relieving pressure through ureterolysis in extrinsic lesions reduces obstruction without the need for resection. In these cases, inserting a double j catheter and performing a good anatomical dissection before the procedure is important for surgical success. After resection, uretero-ureteral anastomosis is the most frequently performed surgical procedure. On the prognostic level, favourable outcomes, particularly regarding renal function can be reached when diagnosis and surgery are early, with a long-term follow-up.



## **Conclusions**

Endometriosis involving the urinary tract is exceedingly rare. With the possibility of obstruction and subsequent renal dysfunction and nonfunctioning kidney, patients must be thoroughly evaluated to avoid such often-preventable sequelae. Surgical excision remains the mainstay of treatment and appears to have favourable effect.

**A unique case of haemorrhagic shock from a ruptured corpus luteum cyst with bromadiolone poisoning**

*Jonathan Han<sup>1</sup>, Angeline Chua<sup>2</sup>, Smita Lakhota<sup>1</sup>, Shahul Hameed Mohamed Siraj<sup>1</sup>, Bernard Chern<sup>1</sup>*

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**Background**

Ruptured corpus luteum cysts are a common cause of hemoperitoneum in a woman of reproductive age. We report a unique case of a lady presenting with haemorrhagic shock due to a ruptured corpus luteum cyst leading to a massive hemoperitoneum that was complicated by an acquired correctable coagulopathy from bromadiolone poisoning.

**Methods**

A 19-year-old healthy lady presented with abdominal pain, vomiting and haematuria. Her heart rate was 135 beats per minute and her blood pressure was 81/56 mmHg. She was pale but alert. Ultrasound imaging revealed fluid with echos at all 4 quadrants and a 3.8cm left corpus luteum. She was resuscitated with intravenous fluids and blood transfusion. An indwelling catheter was inserted, and a bladder washout was commenced.

Her haemoglobin on arrival was 8.9 g/dl, which subsequently dropped to 4.7 g/dl. Her platelet count was normal. We noted a severe coagulopathy with prothrombin time of >120 seconds, activated partial thromboplastin time of 134.4 seconds and fibrinogen of 2.63 g/L. She had no family history of bleeding disorders; however her aunt was warded with similar symptoms and clinical presentation, and her brother was admitted for severe epistaxis. Their symptoms started after a family meal.

In view of her coagulopathy, a decision was made to hold off immediate surgery. She was stabilised in the intensive care unit with a multidisciplinary team comprising the gynaecologist, haematologist and anaesthetist. She was started on intravenous tranexamic acid, fresh frozen plasma, cryoprecipitate and vitamin K replacement. She was covered with broad spectrum antibiotics in view of the possibility of sepsis. A toxicology screen was sent. A computed tomography (CT) scan reported a likely ruptured corpus luteum.

Upon correction of her coagulation, she underwent a diagnostic laparoscopy and left ovarian cystectomy. Intraoperatively, we noted a hemoperitoneum of 2.5 litres and a ruptured 3cm left corpus luteal cyst. A cystectomy was performed and the hemoperitoneum was evacuated. Her total estimated blood loss was 3 litres. She recovered well and was discharged on post operative day 11.

**Results**

Factor assays matched a warfarin like pattern with factor II, VII, IX and X involvement and toxicology screen identified bromadiolone poisoning.

She was asymptomatic upon outpatient follow up. Histology reported a haemorrhagic corpus luteal cyst. The haematologist advised her to complete a total of 6 months of oral vitamin K replacement.

## **Conclusions**

This case highlights the importance of identifying and correcting contributing factors such as coagulopathy in a patient presenting with haemorrhagic shock from a ruptured corpus luteum. A high index of suspicion should be present with atypical presenting complaints such as haematuria. Rushing for surgery without first addressing the coagulopathy may result in further massive haemorrhage and severe consequences. This case also emphasizes the importance of a multi-disciplinary team.

**ABST-0154 - P\*010**

**Best Selected ePosters**

**Comparison of Relugolix Monotherapy with Leuprorelin for Pre-Surgical Treatment of Uterine Leiomyomas: A Retrospective Comparative Study**

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**Background**

Preoperative pseudo menopausal therapy is commonly administered prior to Laparoscopic Myomectomy (LM), Total Laparoscopic Hysterectomy (TLH), and Trans Cervical Resection (TCR) to facilitate myoma reduction. In Japan, Relugolix Monotherapy is utilized as a pseudo menopausal therapy for uterine fibroids and endometriosis. This study aims to compare the efficacy of Relugolix Monotherapy versus Leuprorelin as preoperative treatment.

**Methods**

Two hundred sixty patients scheduled for LM, TLH, or TCR between March 2020 and August 2021 at our institution were included. Patients received either relugolix (40 mg, oral, once daily) or leuprorelin acetate (1.88 mg, monthly injection) for a minimum of 3 months before surgery. Study parameters included age, BMI, maximum diameter of uterine fibroids, percentage of patients with submucosal uterine fibroids, Haemoglobin levels post-administration, Estradiol levels post-administration, and incidence of Hot Flashes. Statistical analysis was conducted using the Mann-Whitney test and chi-square test with SPSS software.

**Results**

Parameters assessed in both the Relugolix and leuprorelin groups included age, BMI, maximum diameter of myoma, percentage of patients with submucosal myoma, Haemoglobin levels, and the incidence of Hot Flashes. The incidence of Hot Flashes was significantly lower in the Relugolix group (13.5%) compared to the Leuprorelin group (26.9%) ( $p < 0.05$ ).

**Conclusions**

These findings suggest that Relugolix monotherapy may be as effective as Leuprorelin and potentially associated with fewer side effects.

**ABST-0179 - P\*013**

**Best Selected ePosters**

**Heterotopic pregnancy after bilateral salpingectomy, IVF and multiple embryos transfer. A case report and systematic review of the literature**

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**Background**

Heterotopic pregnancy (HP) is defined as a multiple pregnancy with both an intrauterine and an ectopic conceptus, occurring in 1:30000 of natural conceptions. Assisted reproduction techniques have though raised the overall incidence of HP to 0.09% or approximately 1:1000. Heterotopic pregnancy may extremely rarely lead to abdominal implantation, resulting to an abdominal pregnancy (AP). As AP occurs approximately in 1:1000 ectopic pregnancies, it is obvious that heterotopic abdominal pregnancy (HAP) is an extremely rare complication of in vitro fertilisation/ embryo transfer cycles, least of all after prior bilateral salpingectomy.

**Methods**

We report a case of a ruptured abdominal pregnancy on the omentum which was the stimulus to conduct the first systematic review on this complication according to 'PRISMA' guidelines (PROSPERO R.No CRD42020134104). PubMed, EMBASE and OpenAIRE databases were systematically reviewed for studies reporting (a) cases or case series of, (b) heterotopic pregnancies after, (c) prior bilateral salpingectomy, and (d) embryo transfer cycles.

**Results**

Twenty-two articles met the selection criteria including, with our case, 28 cases. The mean age of affected women was 33 years old (range 27–40 years old) and the mean gestational age in weeks at diagnosis, excluding two cases of prolonged gestational age of 32 and 26weeks, was seven weeks and five days. The leading reason for previous salpingectomy was ectopic pregnancy (44%), including nine women that had two consecutive or simultaneous previous ectopic tubal pregnancies. In most of the cases (57%) the ectopic implanted conceptus was ruptured prior to admission at the hospital. Of all women, 25% were asymptomatic, 46% presented with abdominal pain, 21% with vaginal bleeding and 7% with weakness or unstable vital signs. The ectopic part of the heterotopic pregnancy was managed conservatively with local injection of either KCL or methotrexate in only two cases. In the rest 26 cases, laparoscopy (21%), conversion to laparotomy (11%) or laparotomy (57%) was needed. Among abdominal pregnancies only our case was managed successfully with laparoscopic access. Finally, in 65% of the cases the intrauterine pregnancy proceeded to a viable neonate, 60% of which were term neonates. One pregnancy was ended with a medical abortion due to trisomy 21 while seven of the intrauterine pregnancies miscarried from which three preceded the diagnosis of the

ectopic pregnancy. No maternal death was reported, and the main delivery mode was Caesarean Section in 87% of the cases.

### **Conclusions**

Clinical manifestations and laboratory findings can be unspecific or misleading. Transvaginal ultrasound is the main diagnostic tool as the ectopic foetus is more frequently located in the intramural part of the fallopian tubes, the tubal stump or the ovaries. Laparotomy or laparoscopy are the main treatment options with adequate perinatal outcome.

**Laparoendoscopic single-site surgery (LESS) in benign gynaecology: experience in a tertiary centre**

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**Background**

Laparo-endoscopic single-site surgery (LESS), also known as single-port surgery, is a novel and increasingly popular minimally invasive technique. Compared to conventional laparoscopy, it minimises the morbidity associated with multiple incisions and is associated with improved cosmesis. The study aims to determine the clinical profile and surgical outcomes of a series of benign gynaecology patients treated with LESS.

**Methods**

This is a retrospective analysis of benign gynaecology patients treated with LESS from 2015 to 2020 at Singapore General Hospital. Data on demographics, co-morbidities, indication, type of surgery and outcomes were collected and analysed. Malignant cases were excluded from this study.

**Results**

A total of 128 women underwent LESS for benign conditions. 56 patients underwent total hysterectomy bilateral salpingoophorectomy (THBSO), 14 patients underwent total hysterectomy with or without bilateral salpingectomy (ovaries conserved), 38 patients underwent salpingoophorectomy and oophorectomy, 17 patients underwent cystectomy and 3 patients underwent salpingectomy. The age of patients ranged from 18-85 years old. 35% of patients had a previous abdominal or pelvic surgery prior to LESS. The most common indication for surgery was ovarian cyst (50%), followed by fibroids (18.8%), and adenomyosis and endometriosis (5.5%). The median operating time ranged from 40 – 315 mins and differed according to the type of surgery performed. The median estimated blood loss (EBL) ranged from 50 – 650mL. The rate of perioperative complications (Grade II and above) was low (6.2%). One patient required intraoperative transfusion. There were no cases of conversion to conventional laparoscopy or laparotomy, and no cases of intraoperative injury.

**Conclusions**

LESS is feasible and provides safe and effective outcomes in gynaecology patients with various benign conditions.

**ABST-0276 - P\*017**

**Best Selected ePosters**

### **The impact of myofascial pelvic pain on female sexual function**

*Lejla Sandrieser<sup>1</sup>, Jana Heine<sup>1</sup>, Christine Bekos<sup>1</sup>, René Wenzl<sup>1</sup>, Heinrich Husslein<sup>1</sup>, Lorenz Kuessel<sup>1</sup>*  
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#### **Background**

Myofascial pelvic pain (MFPP) is a prevalent, yet frequently overlooked condition characterized by painful myofascial trigger points (MTrPs) located within the pelvic muscles. Affected women often experience a severe negative impact on their quality of life. As female sexual health is of high significance for both individual quality of life and in relation to myofascial pelvic pain, we here aim to investigate the connection between MFPP and women's sexual functioning.

#### **Methods**

83 premenopausal women with benign gynaecological conditions like ovarian cysts, endometriosis and fibroids were included in this pilot study. Assessment involved anamnesis, subjective pain intensity measured by visual analogue scale, an established standardized examination method providing internal palpation scores for MFPP, and the German Female Sexual Function Index (FSFI) questionnaire.

#### **Results**

Women with MFPP (37; 44,6%) had more days with pain per month (8 vs 3,  $p=0.002$ ), and higher median VAS scores for dyspareunia (4 vs 0,  $p<.001$ ) than women without MFPP (46; 55,4%). We found a significant negative correlation between the extent of MFPP and FSFI scores ( $r=-0.35$ ,  $p<.001$ ). In detail, we observed significant negative correlations in the subdomains pain ( $r=-.364$ ,  $p<.001$ ), lubrication ( $r=-.230$ ,  $p\leq.005$ ), and arousal ( $r=-.360$ ,  $p<.001$ ).

#### **Conclusions**

With dyspareunia and recurrent pelvic pain as key features, MFPP has a significant negative impact on female sexual health and functioning with an emphasis on pain, arousal, and lubrication. This understanding combined with raised awareness for MFPP could provide the foundation for an individualized therapy, thereby improving the quality of life of affected women.



**Seven steps to standardize laparoscopic surgical treatment for deep endometriosis**

*Igor Gladchuk<sup>1</sup>, Valery Marichereda<sup>1</sup>, Natalia Rozhkovska<sup>1</sup>, Vitaliy Kozhakov<sup>1</sup>, Khrystyna Haidarzhii<sup>1</sup>, Yuriy Petrovskiy<sup>2</sup>*

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<sup>2</sup>*Odesa National Medical University, Multidisciplinary Medical Center, Odesa, Ukraine*

**Background**

Deep endometriosis (DE) is a common disorder in women of reproductive age with chronic pelvic pain and/or infertility. Organ boundaries can be lost due to damage, making surgery challenging for experienced surgeons.

The objective of this study was to standardize the surgical treatment procedure of deep endometriosis for easy reproduction of the sequence of surgical steps, which will lead to balancing the completeness of the excision of tissues affected by endometriosis, and prevention of intra- and postoperative complications, preservation of female fertility.

**Methods**

A retrospective observational study was conducted during the last 9 years (2013-2022) at Odessa National Medical University clinics. For this study, we selected all the 989 laparoscopic operations that were performed in patients with DE who suffer from chronic pelvic pain and/or infertility during this period.

Our standardized technique of surgical procedure in laparoscopic treatment of DE included seven main steps: 1) laparoscopic revision of pelvic and abdominal cavity; 2) adhesiolysis and “second-look” laparoscopic revision, verification of DE, its localization and stage by #Enzian classification system, visualization of ureters; 3) ovarian surgery (using the technique of enucleation of endometriomas and partially ablation) and ovarian fixation; 4) lateral/central peritoneal resection (total or partial), removing all peritoneal endometriosis lesions; 5) shaving or resection of endometriosis nodules in rectum, bladder, sigmoid colon, ureter, appendectomy if needed; 6) evacuation of macro preparation, inspection of integrity of pelvic organs (bladder, rectum, colon); 7) haemostasis and drainage.

**Results**

Adhesiolysis was performed in 885 (89,5%) cases, ovarian fixation - in 702 (71,0 %) cases. Enucleation of endometriomas was done in 91% of cases. Total peritoneal resection was in 157 patients (19,8 %), partial – in 263 (33,2 %) cases. Removal of the deep endometriosis lesions in compartment A – 372 cases (37,6%), in compartment B – 411 (41,6 %). Ureterolysis was performed in 64 patients (6,47 %), bladder shaving/resection – in 52 (5,25 %). Rectal shaving was performed in 107 cases (10,78 %), rectal resection – in 12 (1,2 %), bowel resection – in 22 (2,2%), appendectomy – in 9 patients (0,91%). Chronic pelvic pain symptoms were reduced or decreased in 757 (76,6 %) patients. The pregnancy rate was 34 %. Recurrence of DE symptoms was detected in 48 (4,8 %) patients who withdrew postoperative treatment or didn't conceive in 12 months after surgical treatment.

## **Conclusions**

Standardization of laparoscopic surgical procedures in DE improves short-term and long-term treatment results and may be recommended in clinical practice at endometriosis centres.

## Evaluation of Women's Reproductive Health after Emergency Gynecological Surgeries

*Khaoula Belaid*<sup>1</sup>

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### Background

Diagnostic and therapeutic laparoscopy offer a precise and effective approach to evaluate and treat acute gynaecological conditions and is widely used in these cases. However, despite the advantages of laparoscopy, the long-term consequences of these interventions on women's reproductive health remain understudied. In this study, we evaluated their impact on women's reproductive health, specifically examining postoperative symptoms (pelvic pain, menstrual disorders, and infertility) and their medium-term prevalence.

### Methods

A descriptive, observational, cross-sectional study was conducted in our department to assess the impact of emergency surgical interventions on women's reproductive health. The study period spanned three years, from January 2020 to January 2023. The study population included all patients undergoing emergency gynaecological surgery in our department during the mentioned period. Data collection was done using survey forms, operating room registers, and patients' medical records. The collected data were entered and processed using IBM SPSS Statistics version 27.0. For statistical analysis, several tests were performed, including the chi-square test, the Student's t-test and the Fisher's exact test. The significance thresholds used were generally set at  $p < 0.05$  to determine statistically significant associations.

### Results

The reproductive health status of 167 women aged 19 to 42 years was analysed at least 1 year after emergency surgical intervention. Among these women, 101 (60.5%) underwent laparoscopic intervention for "acute abdomen," while 66 (39.5%) underwent open laparotomy. In the laparoscopic intervention group (study group), the indications were as follows: adnexal torsion (33; 31.4%), ectopic pregnancy (29; 44.6%), and complicated ovarian cysts (19; 24%). The mean age of women in this cohort was  $28.9 \pm 6.2$  years. Before surgery, among the 167 women, 5 (4.9%) had dysmenorrhea, 22 (22%) had oligomenorrhea, and 9 (9%) had abnormal uterine bleeding, totalling 36 women (35.6%) with menstrual disorders. Additionally, 30 women (29.7%) had a history of genital infections, and 6 (5.9%) had a history of foetal losses. Fourteen (13.9%) women had been examined and treated for infertility before surgery. After surgery, it is noteworthy that hormone therapy was prescribed in 13 (24.5%) of 53 cases where it was indicated. The analysis of reproductive function status after surgery showed a significant increase in the incidence of dysmenorrhea (from 22% to 35.9%,  $p < 0.05$ ), and infertility (from 13.9% to 21.6%,  $p < 0.05$ ). Additionally, chronic non-cyclic pelvic pain appeared in 30 women (29.7%) after surgery, whereas it did not exist before.

### Conclusions

our findings highlight the significant consequences of emergency gynaecological surgeries, even using a laparoscopic approach, on women's reproductive health. These findings underscore the importance of careful evaluation of women's reproductive health after such interventions, as well as

the need for appropriate management strategies to mitigate adverse effects on patients' fertility and quality of life.

**ABST-0399 - P\*021**

**Best Selected ePosters**

## **Reproductive outcomes after hysteroscopy for female genital tract congenital anomalies**

*Teodora Morales Caminiti<sup>1</sup>, Begoña Ayuso Llorente<sup>1</sup>, Josefa Ignacia Valdivieso Jara<sup>1</sup>, Juan José Delgado Espeja<sup>1</sup>, Rocío García Berrio<sup>1</sup>, Aldina Couso González<sup>1</sup>*

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### **Background**

Infertility is a major problem in our society mainly due to the increasing age at which women fulfil their genesic desire. However, female genital tract congenital anomalies (FGTCA) are a less frequent cause related not only with primary infertility but also with recurrent miscarriage and preterm deliveries.

FGTCA have an incidence in the population of 4-7% and in the infertile population they increase up to 10%. Diagnosis is made with 3D ultrasound or magnetic resonance imaging. Hysteroscopy is the treatment technique of choice for some of these FGTCA.

### **Methods**

We have performed a descriptive study in our centre evaluating the diagnostic hysteroscopies requested from the infertility reproduction visit, obtaining a total of 87 patients from January 2019 to June 2023.

The variables included were women's age, previous gestations and miscarriages, hysteroscopic diagnosis, assisted reproductive technique (ART), subsequent gestations and live birth rate (LBR).

### **Results**

Out of the 87 patients who underwent diagnostic hysteroscopy only 9 (10,3%) had uterine malformations: 5 septate uteri (U2aC0V0 and U2bC0V0), two bicorporeal uteri (U3cC2V0 and U3aC0V0), and 2 dysmorphic uteri (U1aC0V0 and U1bC0V0).

The most frequent FGTCA is septate uteri (U2) in up to 35% of the cases of uterine anomalies. It may be a partial or a complete septum and it can also be associated with a cervical and a vaginal septum. The treatment is a hysteroscopic septoplasty with the aim of increasing the volume of the uterine cavity. This technique is not risk free, the myometrium can be injured, and the uterus can be perforated, so it is indicated in patients with infertility, implantation failure or repeated miscarriages. In our database, all the patients had a history of infertility; however, hysteroscopies were requested not only for infertility but also for abnormal uterine bleeding and for the study of suspected FGTCA. With a mean age of 35,5 years, 55% (5) of our patients had a history of one or two previous miscarriages, without LBR. Those 5 patients with septated uteri underwent hysteroscopic septoplasty with no incidences. After diagnostic hysteroscopies, 6 patients (66,7%) achieved subsequent pregnancy and 2 (22,2%) had a spontaneous pregnancy. Eventually, 5 (55,5%) of these women achieved LBR.

## **Conclusions**

In summary, hysteroscopic study of the uterine cavity is especially important in patients with FGCA, not only for its diagnostic capacity, but also for its therapeutic capabilities. This technique allows to improve the reproductive results in patients with an infertility history or a history of previous miscarriages.

**Laparoscopic management of postmenopausal endometriosis of the rectum with cellular atypia: a case report.**

*Meletios Nigdelis<sup>1</sup>, Gilbert Georg Klamminger<sup>2</sup>, Mathias Wagner<sup>2</sup>, Gregor Leonhard Olmes<sup>1</sup>, Erich-Franz Solomayer<sup>1</sup>, Bashar Haj Hamoud<sup>1</sup>*

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**Background**

Despite its well-known prevalence among women of reproductive age - almost 10% of the general population - postmenopausal endometriosis remains largely uncaptured, mainly due to its ambiguous pathophysiology in the setting of global hypoestrogenism caused by menopause. What is more, its management constitutes a perplexing task given the necessity to exclude malignancy, which is more prevalent in older women, and the lack of effective medical treatments. The aim of this case report is to describe the operative and medical management of a postmenopausal woman with rectal endometriosis.

**Methods**

We collected clinical data of the case from the electronic medical records system of the hospital. The patient provided informed consent for publication of relevant clinical data.

**Results**

We report a 71-year-old patient presenting with chronic left lower quadrant pain along with haematochezia over the past three years. The patient reported having undergone laparotomic right partial oophorectomy and total hysterectomy on the grounds of deep infiltrating endometriosis and left total nephrectomy due to unclear reasons. The patient's medical history included metabolic syndrome and depression. Additionally, the patient reported receiving oral oestradiol for perimenopausal vasomotor symptoms. Investigations included computerized tomography of the abdomen and colonoscopy with biopsy, demonstrating a 5cm large tumour infiltrating the lumen of the sigmoid colon and possible contact with the vaginal stump, histologically proven to be endometriosis. Tumour markers (Ca-125) were within normal range. Given the clinical complaints, the patient opted for a laparoscopic endometriosis removal with partial colectomy and low anterior resection of the rectum with protective double-barrelled ileostomy, given patient age and low anastomosis. Apart from the rectum, the endometriotic lesions affected the left pelvic side wall, including the ureter. Intraoperative frozen section and final histology demonstrated intramucosal endometriosis of the rectum with oestrogen receptor positive glands showing focal cellular atypia with retained CD10 positive endometrial stromal components (exclusion of malignancy). The patient was discharged on the sixth postoperative day, and there were no abnormalities noted postoperatively. The ileostomy reversal operation took place 6 weeks after the first procedure. On the three-month follow-up, the patient reported residual pain of significantly decreased intensity. An off-label use of letrozole 2,5mg *per os* daily led to a complete subsiding of pain.

## **Conclusions**

Postmenopausal endometriosis is a rare entity presenting most commonly as a tumour of the abdomen or pelvis. Exclusion of malignancy constitutes one of the priorities of diagnosis. The use of hormone replacement therapy is reported to increase the risk of endometriosis recurrence and malignant transformation of pre-existing foci. Operative management seems to be the most appropriate form of treatment in the absence of contraindications, while medical treatment with aromatase inhibitors can be helpful in cases of residual pain.



**ABST-0456 - P\*023**

**Best Selected ePosters**

### **does vasopressin reduce blood loss and surgical time in total laparoscopic hysterectomy?**

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*<sup>3</sup>Broomfield Hospital Chelmsford, Gynaecology and Obstetrics, Chelmsford, United Kingdom*

#### **Background**

Objective of this study is to evaluate effectiveness of intracervical vasopressin in minimising blood loss and surgical time in total laparoscopic hysterectomy.

hysterectomy by minimally invasive approach is now preferred as it obviates the need for a huge abdominal incision, longer hospital stay, longer convalescence time, and associated complications with added advantages of better visualization, faster recovery, less pain, and cosmetically better. intracervical injection of vasopressin is a safe and effective haemostatic technique for controlling regional blood flow from the uterine artery to peripheral blood vessels, without having a significant effect on systemic circulatory dynamics. systolic/diastolic blood pressure tended to increase immediately after vasopressin administration, but the increase was not significant.

#### **Methods**

This is an ongoing prospective study at two large district general hospitals in united kingdom. We are presenting results of our pilot study carried out at both the centres with 30 cases in group a and group b. in group a intracervical normal saline of 60 ml was injected and group b received 60 ml of intracervical vasopressin. All patients undergoing laparoscopic hysterectomy were included in this study, the exclusion criteria were contraindication for vasopressin injection like coronary artery disease.

The primary outcome was blood loss during surgery which was calculated from blood loss measured from suction bottle, pre and post operative haemoglobin. The surgical time was recorded for all the procedures. the secondary outcome was ease of surgical dissection and amount of oozing during the procedure was noted by operating surgeon.

The side effects related to vasopressin like oliguria and hyponatremia were measured by urinary output, pre and postoperative sodium levels or also any other side effects of vasopressin were recorded.

#### **Results**

Overall, two groups were similar with regards to their demographics, size of the uterus and relevant findings at the time of surgery. our results showed a small difference in terms of intraoperative blood loss among both groups for a normal size uteri although blood loss for a large size uteri (>12 weeks) with fibroids was less but not statistically significant. The surgeons experience in terms of dissection of surgical planes, securing uterine artery, vein at the level of isthmus, blood loss during colpotomy and overall surgical time was better in group b compared to group a.

In few cases, there was a transient oliguria and hyponatremia which didn't require any further treatment. None of these patients in either groups required blood transfusion.

## **Conclusions**

Our study supports the use of intracervical vasopressin injection at the time of total laparoscopic hysterectomy which reduces blood loss without increasing morbidity. It is a useful adjunct in terms of getting good surgical field of dissection. In addition, vasopressin was safe and did not correlate with an increase in the rates of febrile morbidity or pelvic infection.

**ABST-0464 - P\*025**

**Best Selected ePosters**

### **Hysteroscopy and Reproductive Outcomes in Patients Diagnosed with Infertility due to Endometrial Polyps: Experience in Our Center**

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#### **Background**

Hysteroscopy has become an essential tool for the diagnosis and treatment of various uterine pathologies, with endometrial polyps being prominent among them.

Endometrial polyps are benign growths of endometrial glands that can significantly contribute to infertility and other reproductive disorders. While their association with infertility has been well documented, questions still linger regarding the precise impact of these polyps on reproductive outcomes and the effectiveness of hysteroscopy in addressing them

#### **Methods**

A descriptive study was conducted to analyse the indication and outcomes of hysteroscopy in patients diagnosed with infertility at our Príncipe de Asturias University Hospital. A database was created that included all patients referred from the Reproductive Service with a diagnosis of infertility who were scheduled for hysteroscopy from January 2019 to June 2023.

The variables included were patient age, indication for hysteroscopy, hysteroscopic findings, particularly the presence of endometrial polyps, pathological anatomy results, and reproductive outcomes following the study.

#### **Results**

A total of 87 hysteroscopies were performed on patients referred from the Reproductive Service. Out of all patients, 39 (44%) were due to ultrasound findings suggestive of endometrial polyps. The diagnosis of endometrial polyps is initially made by ultrasound and confirmed by direct visualization during hysteroscopy.

In our study, among all diagnostic hysteroscopies, endometrial polyps were identified in 34 patients (40%), with the majority of these polyps measuring between 7-10mm (45%) and located on the anterior wall and fundus, consistent with the hysteroscopic characteristics reported in the literature for endometrial polyps. Complete resection of these polyps was confirmed by histopathological examination in 100% of cases. Among cases with diagnosed endometrial polyps, a spontaneous pregnancy rate of 59.4% was observed after polypectomy compared to 37% who did not achieve subsequent pregnancy.

#### **Conclusions**

These results suggest that hysteroscopy is a valuable diagnostic tool in patients with infertility and/or uterine ultrasound abnormalities, allowing for the identification and treatment of endometrial polyps, which may improve spontaneous pregnancy rates in this patient population

**Accuracy of ultrasound diagnosis and effectiveness of laparoscopic treatment of deep endometriosis**

*Taisiia Melnychuk<sup>1</sup>, Rocio Luna Guibourg<sup>1</sup>, Noelia Rams Llop<sup>1</sup>, Maite Murcia Oliveras<sup>1</sup>, Ramon Rovira Negre<sup>1</sup>*

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**Background**

Detailed preoperative description of endometriotic lesions using non-invasive methods is an important tool for accurate diagnosis and for developing effective treatment strategies for the disease. Transvaginal ultrasound is a sensitive method for the diagnosis of deep infiltrating endometriosis. Furthermore, there are few studies that evaluate the effectiveness of surgical treatment of pain associated with deep endometriosis in terms of general pain measurement instruments. One of these instruments is the visual analogue scale (VAS), which evaluate pain from 0 to 10. According to a recent systematic review by Cochrane, there is not enough data to conclude that deep endometriosis surgery reduces the global pain scale in patients with deep endometriosis.

The objective of this study was to evaluate the diagnostic accuracy of ultrasound for the detection of deep endometriosis and to assess the effectiveness of laparoscopic treatment of pain associated to deep endometriosis.

**Methods**

A retrospective cohort study of patients who underwent ultrasound study prior to laparoscopy for the treatment of pain associated with deep endometriosis between January 2022 and December 2023.

**Results**

19 patients diagnosed with deep endometriosis by transvaginal ultrasound with severe pelvic pain without response to hormonal treatment underwent laparoscopy by removing of endometriotic lesions. The average age of the patients was 38.8 years, 79% of the patients performed intestinal preparation prior to surgery. The patients presented the following symptoms: dysmenorrhea (84%), dyspareunia (47%), dyschezia (68%), dysuria (10%) and chronic pelvic pain (47%). The following ultrasound findings were evaluated in comparison with surgical findings: endometrioma (sensitivity 90% and specificity 66.6%), ovarian adhesions (sensitivity 100% and specificity 66.6%), obliteration of the pouch of Douglas (sensitivity 85.7% and specificity 50%), rectosigmoid involvement (sensitivity 100% and specificity 83%) and uterosacral ligament involvement (sensitivity 72% and specificity 87%). Pain was collected using the VAS scale in the pre-surgical visits and in the post-surgical follow-up at 3, 6 and 12 months. Pain at 3 months post-surgery was reduced by 5 points (95% CI 3.51-6.49) p 0.0001: pre-surgical mean 7.95 +/-1.35 SD vs pain at 3 months post-surgery 2.95 +/- 3.15 SD. Pain at 6 months post-surgery was reduced by 4.84 points (95% CI 3.19-6.50) p 0.0001: pre-surgical mean 7.95 +/-1.35 SD vs pain at 6 months post-surgery 3.11 +/- 3.51 SD. Pain at 12 months post-surgery was reduced by 4.45 points (95% CI 2.50-6.40) p 0.0001: pre-surgical mean 7.95 +/-1.35 SD vs pain at 6 months post-surgery 3.50 +/- 3.92 SD.

## **Conclusions**

This study demonstrates a high sensitivity of ultrasound for diagnosis of endometriosis, especially in the evaluation of ovarian adhesions and rectosigmoid involvement, and a significant reduction in postsurgical pain in patients with deep endometriosis at 3, 6 and 12 months.

**ABST-0511 - P\*030**

**Best Selected ePosters**

### **Pathomorphological features for the formation of endometrial hyperplasia with atypia**

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Ternopil, Ukraine*

#### **Background**

Recent scientific studies claim that in women with polyposis or atypical endometrial hyperplasia routine histological examination may be necessary in patients with risk factors for timely verification of atypical changes and prognosis of cancer is justified.

Goal. To identify pathomorphological markers of atypia in endometrial hyperplasia in patients with endometrial polyps for early prediction of malignancy risks.

#### **Methods**

A prospective randomized cohort study was conducted in 37 women of reproductive age with abnormal uterine bleeding and endometrial polyps. All patients conducted hysteroscopy as a treatment method followed by histological examination of the resected material. The control group consisted of 20 women who was conducted diagnostic hysteroscopy with biopsy. Endometrial samples were stained with haematoxylin and eosin and viewed under a microscope at x200 magnification. Statistical analysis of the collected data was performed using the Statistica 8.0 Software Package (StatSoft, USA) on a personal computer.

#### **Results**

During the histological examination, it was found that in 51.4% the endometrial glands were unevenly located and had different shapes and sizes, the glandular epithelium was structurally slightly different from the proliferation stage, oval nuclei prevailed in the epitheliocytes, and the cytoplasm was mainly basophilic. Mitoses took place only in individual cells. At the same time, the stroma was dominated by fibroblast-like cells with oval nuclei, single spiral arteries, moderate stagnant whole blood.

The structure of the polyps showed a structural rearrangement of the glandular component: the glands had different shapes and sizes, were located compactly, and branched glandular structures with folds in the direction of the lumen prevailed. At the same time, the epithelium was mainly single-row, in some cases - two- and three-row. Nuclei were oval or rod-shaped, rich in chromatin, blood vessels were unevenly distributed, phenomena of stasis and isolated fibrin thrombi were observed.

It should be noted that in 40.5% of cases both the endometrium and the structure of the polyps showed atypia signs with loss of polarity of the epithelium, numerous papillary intussusceptions of the glands, micropapillary growths with the formation of "epithelial membranes", areas of adenoacanthosis, increased mitotic activity, nuclei deformation with accumulation of chromatin. The glands were predominantly cystically enlarged with single-row cylindrical or flattened epithelium, uneven blood supply, microthrombi and stasis.

## **Conclusions**

In patients with endometrial polyposis, in 40.5% of cases, a marked structural rearrangement of the glands is revealed, with the formation of numerous pathological formations, an atypical structure of the epithelium, uneven blood supply, and an increased number of pathological mitoses.

Timely hysteroresectoscopy makes it possible to carry out histological identification of endometrial structures and polyps to predict the risks of malignancy at an early stage and to carry out adequate treatment of pathological conditions to preserve the reproductive health of women.

**ABST-0602 - P\*033**

**Best Selected ePosters**

**Pushing the boundary: Route of Hysterectomy for benign (non-prolapse) indication in a large teaching hospital**

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*<sup>3</sup>Norwich medical School, Gynaecology, Norwich, United Kingdom*

**Background**

- **Objectives**

To review and analyse routes of hysterectomy, operative complexities and complications of different routes of hysterectomy and compare the outcomes.

**Methods**

Retrospective review of all the case notes of women who underwent hysterectomy for benign gynaecological indication (Non prolapse) over a period of 5 years at Norfolk and Norwich University Hospital, UK

**Results**

We had a total of 232 cases of hysterectomy for benign indications over the 5 years from 2018-2023 operated by 5 different consultants. There was a total of 135 total laparoscopic hysterectomies, 51 total abdominal hysterectomies, 45 vaginal/laparoscopic assisted vaginal or V—NOTES and 1 subtotal hysterectomy.

In the total laparoscopic group of patients there were 42 patients with BMI >30 (out of which 24 were BMI >35).

48/135 patients had previous caesarean sections ranging from 1- 4. There were 3 patients with previous 4 caesarean sections, 6 had previous 3 and 18 had previous 2 caesarean sections. There were 21 patients who had 1 previous caesarean section.

Only 2 had normal sized uterus and the rest of the cohort enlarged uterus ranging from 6 weeks to 18 weeks size bulky uterus and enlarged fibroids. 13 of them had uteri larger than 14 weeks size and 22 had fibroids of >4cm.

Significant adhesions requiring adhesiolysis were present in 34/135 cases.

In the total abdominal hysterectomy group 14/51 had uteri <14 weeks and the rest were for large fibroid uteri. These 14 cases are discussed in detail for the reasons of choosing abdominal route.

In the vaginal hysterectomy group 6/45 were more than 14 weeks size. All of them were enlarged uteri ranging from 6 - 16 weeks size.

Complications -

Total laparoscopic hysterectomy – 2 Vault haematoma, 2 wound infections

Total abdominal hysterectomy – 1 bladder injury -repaired with ureteric stents, 1 haematoma needing drainage, 1 incisional hernia, 4 wound infections.



Vaginal hysterectomy/Laparoscopic assisted vaginal hysterectomy/V-NOTES – 1 haematoma, return theatre.

In the TLH group 104/135 were discharged in less than 24 hours and 24 in less than 48 hours. In the vaginal route group 37/45 were discharged in 24 hours. In the total abdominal hysterectomy group 4/51 were discharged in 24 hours.

### **Conclusions**

Selection of the route of hysterectomy for benign cases is determined by a number of factors including size of the uterus; accessibility, experience of surgeon, availability of appropriate equipment, medical co morbidities of the patient. The well-known advantages of minimally invasive procedures including quick postoperative recovery, short hospital stay make the minimally invasive techniques the most preferred route. In our institute with the expertise of experienced surgeons, the risk of complications is minimal, and we have shown that despite several complexities including high BMI, previous multiple caesarean sections, large uteri, minimally invasive approaches to hysterectomy can be performed.

**Complete Septate Uterus with Double Cervix and Vaginal Septum: When and How to Treat – a case report**

*Mariana Gamito<sup>1</sup>, Ana Figueiredo<sup>1</sup>, Inês Lourenço<sup>1</sup>, Lílíana Barros<sup>1</sup>*  
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**Background**

Müllerian anomalies result from a defect in the genital tract development during embryogenesis and can have various anatomical and clinical presentations. They can affect up to 5% of the population. The most common is the septate uterus (SU), which can be associated with a longitudinal vaginal septum (LVS). Women with SU may experience infertility and obstetric complications. LVS is often asymptomatic, but may also present as dyspareunia, difficulty with tampon insertion or bleeding from its rupture.

Genital tract malformations diagnosis can be challenging and requires imagiologic studies, such as pelvic ultrasound with 3D evaluation and magnetic resonance.

Several surgical techniques have been described, although their indication for some of these anomalies is controversial.

We present a case of genital malformation and discuss the surgical approaches.

**Methods**

We consulted the patient's medical records and reviewed the literature. Patient consent was obtained.

**Results**

We describe the case of a 22-year-old nulliparous woman who complained of dyspareunia. She has isolated dextrocardia and left pulmonary artery stenosis.

Physical examination revealed a longitudinal non-obstructing vaginal septum with 4 cm and two cervixes. An ultrasound was performed with 3D evaluation, which showed a completely septate uterus with extension to the cervix and 2 endocervical canals. (U2bC2V1 ESHRE/ESGE)

Surgical treatment was proposed. She was admitted for excision of the vaginal septum and diagnostic hysteroscopy. The vaginal septum was resected with bipolar cutting electrocautery.

Diagnostic hysteroscopy was performed and confirmed the presence of two cervixes and two uterine hemicavities. Partial excision of the uterine septum was performed with scissors under ultrasound guidance. No complications were reported.

There is conflicting evidence about the benefits of uterine septum removal on obstetric outcomes, although it may increase pregnancy rates in selected patients. SU treatment is mainly based on hysteroscopy and different techniques can be used. The simultaneous use of transabdominal ultrasound can help guide the procedure and prevent complications.

LVS should be excised in symptomatic patients. Traditionally, it was resected with cold scissors/scalpel and the mucosal surfaces were sutured. Other techniques for the vaginal approach are the use of bipolar electrocautery, electrothermal bipolar vessel sealing system, monopolar needle, laparoscopic bipolar forceps, harmonic scalpel and GIA stapler. Treatment of LVS by hysteroscopy has been reported to be a safe and effective alternative to traditional surgery, providing a better view of the LVS at a high magnification. There are reports of LVS excision by resectoscopy under general anaesthesia or by office hysteroscopy using the mini-resectoscope or the hysteroscope with cold scissors, monopolar or bipolar energy instruments.

### **Conclusions**

We present a case of a rare Müllerian anomaly, in which imaging studies associated with physical examination were essential for diagnosis. Many surgical techniques are available and further studies are needed to understand whether any of them is superior.

**ABST-0681 - P\*036**

**Best Selected ePosters**

**Structured regional teaching incorporating patient centred approach, innovation and structured evaluation of diagnostic and operative skills in outpatient hysteroscopy day**

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*<sup>2</sup>RSCH, Gynaecology, Guildford, United Kingdom*

**Background**

We designed a 1-day outpatient hysteroscopy (OPH) motivated by the drive for OPH in the UK. This is mainly in the cancer/ two-week rule (TWR/2WW) and abnormal uterine bleeding (AUB) clinics.

We assessed the efficacy of the training day by assessing the delegates before and after feedback and training.

**Methods**

During the training day we aimed to educate trainees from ST1 to 7 about OPH. We outline the layout of the training day from theory, service provision, techniques, analgesia, pathology and finally a hands-on session. We then assessed participants twice and followed progress after feedback. This was all performed in one day on simulation models. We used the Bettocchi evaluation protocol. 1st and 2nd attempt scores were analysed using simple one tailed T-Test. We also gathered feedback from all trainees in order to fine tune and further develop the day

**Results**

Statistically significant ( $p < 0.05$ ) increase in scores were found on total scores and all individual domains. Data from all trainees was pooled (N=24)

**Conclusions**

We were able in a one-day structured session show improvement in theoretical knowledge, practical skill, diagnostic knowledge using a reproducible model. We also shed light on patient insight and service considerations such as identifying needs and innovating to meet those needs.

**ABST-0733 - P\*039**

**Best Selected ePosters**

### **Diagnosis of neurofibromatosis type one from the detection of a pelvic neurofibroma**

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#### **Background**

Neurofibromas are benign nerve sheath tumours arising from the peripheral nervous system. These tumours can arise either de novo from a large nerve, thus usually occurring close to a plexus or from a pre-existing nerve-sheath tumour. The majority of neurofibromas are sporadic and solitary; in case of multiple lesions, neurofibromatosis Type 1 (NF1) should be considered. Symptoms may include pelvic pain, urinary and sexual dysfunction. Malignancy is rare, but patients with NF1 have a 10% lifetime risk of developing a malignant tumour.

#### **Methods**

We report a case of a 42-year-old woman with right crural pain in the last few months referred to our Department. Transvaginal ultrasound examination showed a rounded solid mobile mass in the right parametrium, measuring 34x44x41 mm, with regular margins, without posterior acoustic shadows, poorly vascularized at colour Doppler examination. MRI confirmed the presence of the lesion.

#### **Results**

Patient underwent an ultrasound-guided biopsy of the lesion and histological examination diagnosed a mesenchymal neoplasm with features consistent with a benign tumour of the peripheral nerve sheaths, and specifically a schwannoma. Patient underwent surgery, and the excision of the right paravaginal mass was performed. Final histology report was positive for a neurofibroma, characterized by spindle cells with S100 positivity. After histological report genetic tests were performed and the diagnosis of NF1 was made.

#### **Conclusions**

In conclusion, pelvic neurofibroma is a rare entity that should be considered in the differential diagnosis of pelvic masses and may be considered in patient with NF1.

**ABST-0540 - P049**  
**Best Selected ePosters**

**Artificial Intelligence, the ChatGPT Large Language Model: Assessing the Accuracy of Responses to the Gynaecological Endoscopic Surgical Education and Assessment (GESEA) Level 1-2 knowledge tests**

*Matteo Pavone<sup>1,2</sup>, Luca Palmieri<sup>1</sup>, Chiara Innocenzi<sup>1</sup>, Federica Campolo<sup>1</sup>, Rudi Campo<sup>3</sup>, Giovanni Scambia<sup>1</sup>*

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*<sup>3</sup>Life Expert Centre, European Academy for Gynaecological Surgery, Leuven, Belgium*

**Background**

In 2022, OpenAI launched ChatGPT 3.5, widely used in medical education, training, and research. Despite its valuable use for the generation of information, concerns persist about its authenticity and accuracy. Its undisclosed information source and outdated dataset pose risks of misinformation. Although it is widely used, AI-generated text inaccuracies raise doubts about its reliability. An ethical use of such technologies is crucial to uphold scientific accuracy in research. This study aimed to assess the accuracy of ChatGPT in doing GESEA tests 1 and 2.

**Methods**

The 100 multiple-choice theoretical questions from GESEA certifications 1 and 2 were presented to ChatGPT, requesting the selection of the correct answer along with an explanation. Expert gynaecologists evaluated and graded the explanations for accuracy.

**Results**

ChatGPT showed a 59% accuracy in responses, with 64% providing comprehensive explanations. It performed better in GESEA Level 1 (64% accuracy) than in GESEA Level 2 (54% accuracy) questions.

**Conclusions**

ChatGPT is a versatile tool in medicine and research, offering knowledges, informations, and promoting evidence-based practice. Despite its widespread use, its accuracy has not been validated yet. This study found a 59% correct response rate, highlighting the need for accuracy validation and ethical use considerations. Future research should investigate ChatGPT's truthfulness in subspecialty fields and compare different versions of chatbot for continuous improvement.

What is new? Artificial intelligence (AI) has a great potential in scientific research. However, the validity of outputs remains unverified. This study aims to evaluate the accuracy of responses generated by ChatGPT to enhance the critical use of this tool.

**Comparison of low- and standard-pressure pneumoperitoneum in laparoscopic hysterectomy: a systematic review and meta-analysis**

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*<sup>2</sup>Dong-A University Hospital, Gynecology, Busan, Korea- Republic Of*

**Background**

Laparoscopy offers advantages over laparotomy in gynaecology, such as reduced hospital stay, postoperative pain and cosmetic concerns. Carbon dioxide (CO<sub>2</sub>) insufflation is used for optimal visualization during laparoscopy but can lead to peritoneal irritation and shoulder discomforts. Several studies have investigated reducing intraperitoneal pressure to alleviate pain. However, the effectiveness of low pneumoperitoneal pressure (LP) versus standard pneumoperitoneal pressure (SP) remains inconclusive. This study compares the outcomes of LP and SP in laparoscopic hysterectomy, focusing on postoperative complication, postoperative pain and shoulder pain, analgesic use, hospital stay, operative time, conversion rate to laparotomy and blood loss.

**Methods**

We conducted a meta-analysis of selected randomized controlled trials (RCTs) that compared the effects of LP with SP in laparoscopic hysterectomy published from January 2000. We included women who underwent LH for gynaecological indications and excluded women with gynaecological malignancies. The primary outcomes of the present analysis were the incidence of overall complications, operative time, blood loss, conversion to laparotomy and increase of insufflation pressure. Secondary outcomes were postoperative abdominal and shoulder pain, amount of analgesic dose and length of hospital stay.

**Results**

The final meta-analysis included four articles reporting results from RCTs. The study pressure ranges were LP group (8mmHg) and SP group (12 to 15 mmHg). There were no significant differences between the LP and SP groups in overall complications (RR 0.67, 95% CI 0.20 to 2.33, I<sup>2</sup>=34%, p=0.53), operative time (WMD -4.48min, 95% CI -22.35 to 13.38, p < 0.00001) and blood loss (SMD -0.47, 95% CI -0.89 to -0.06, I<sup>2</sup>=41%, p=0.19). VAS pain scores at 48 hours after surgery was lower in LP group (WMD -13.06 95% CI -17.9 to -8.21, p < 0.00001). Additionally, LP group was associated with a lower VAS score of shoulder pain (WMD -9.51, 95% CI -11.80 to -7.22, p < 0.00001). There were no significant differences in postoperative analgesics dose (SMD -0.52, 95% CI -1.10 to 0.05, I<sup>2</sup>=86%, p = 0.08) and hospital stay (SMD 0.12, 95% CI -0.83 to 1.07, I<sup>2</sup>=93%, p = 0.8).

**Conclusions**

This study suggests that laparoscopic hysterectomy with low pneumoperitoneal pressure may offer advantages in terms of postoperative pain, particularly in the abdomen and shoulder, without significantly affecting postoperative outcomes including overall complication, operative time, blood loss, postoperative analgesic dose and hospital stay. In patients who are morbidly obese and are cardiopulmonary compromised, low pneumoperitoneal pressure laparoscopic surgery may be an alternative. Additional research in this area can contribute to enhancing the effectiveness and broader adoption of low peritoneal pressure techniques.

# EPOSTER STATION PRESENTATION

**ABST-0017 - P200**

**ePoster and Video Presentations**

## **Comparison of complications and recovery after laparoscopic and abdominal hysterectomy for benign disease: The LAParoscopic Versus Abdominal hysterectomy (LAVA) randomised controlled trial**

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### **Background**

Several RCTs, mostly small and of low or moderate quality, have compared the surgical approach to hysterectomy for benign disease. The 2015 Cochrane review identified 25 trials (2983 women) comparing laparoscopic and abdominal hysterectomy (AH). Laparoscopic hysterectomy (LH) was found to have significantly more urinary tract injuries (bladder or ureter) but the available evidence was of low quality. Thus, we designed a large RCT called the LAVA trial (LAParoscopic Versus Abdominal hysterectomy) to determine the effectiveness of laparoscopic hysterectomy compared to open abdominal hysterectomy for women with a benign gynaecological condition.

### **Methods**

The detailed LAVA trial protocol has been previously published. In short, a parallel, open, non-inferiority, multicentre, randomised controlled, expertise-based surgery trial was conducted. The trial aimed to recruit 3250 women requiring a hysterectomy for a benign gynaecological condition and who were suitable for either laparoscopic or open, abdominal techniques. Women were eligible for recruitment to the LAVA trial if they were aged between 18-55 years, able to give informed consent to participate and did not require concomitant gynaecological surgery for bladder / pelvic support or deep endometriosis requiring dissection of the para-rectal space.

Women were randomised to LH or AH by a surgeon with self-declared expertise. Major complications and personalised recovery were assessed by regular text messaging (censored at six months) and postal questionnaires at six and 12 weeks.

### **Results**

75 women were randomised; 32/39 (82%) and 30/36 (83%) women underwent hysterectomy in the LH and AH groups respectively. Major complications occurred in 2/32 (6%) LH vs. 4/30 (13%) AH groups. There was no difference in personalised recovery (median [IQR, N] 7.0 (3.6-7.9, 24) LH vs. 7.5 (3.6-10.6, 26) AH groups; HR 0.92, 95% CI 0.49, 1.73; restricted mean survival time difference -0.49, 95% CI -2.54, 1.58). Recovery quality was comparable between LH and AH (Mean [SD, N] 81.1 (13.4, 27) vs. 72.3 (17.6, 22) respectively; adjusted mean difference 7.4 (-3.0, 17.8).

### **Conclusions**



Patients can be counselled that whilst there is a small, but significant risk of major complications, a problematic or protracted recovery from either approach to hysterectomy is unusual. They can be informed that most patients resume their normal activities at levels commensurate with their pre-operative abilities within eight weeks and are satisfied with the result of surgery.

Unfortunately, the fact that the LAVA trial has had to be closed down due to slow recruitment does not bode well for the future of large surgical trials. It is even more worrying that a lack of clinician equipoise is one of the main reasons for poor hospital participation given that by definition there is clear uncertainty on which is the better approach

**ABST-0784 - P363**

**ePoster and Video Presentations**

**Indocyanine green (ICG) application for fluorescence-guided mapping of ureters during the surgical treatment of colorectal endometriosis.**

*Alexander Volodarsky-Pere1, Yehiel Burke1, Shlomo Cohen1, Saar Aharoni1, Miri Erenberg1, Elad Berkowitz1*

*<sup>1</sup>Sheba Medical Center, Endometriosis Center, Ramat Gan, Israel*

### **Background**

Laparoscopic surgery for deep infiltrating endometriosis (DIE) involving the rectum poses a risk of ureteral injury as the disease may obscure anatomical landmarks of distorted pelvic anatomy. Intraoperative fluorescence-guided mapping using Indocyanine Green (ICG) offers a promising technique to enhance the visualization of ureters and improve surgical safety. The objective of our study was to demonstrate the technique of ICG-assisted ureteral identification during laparoscopic treatment of deep infiltrating endometriosis involving the rectum.

### **Methods**

We included the patients who underwent laparoscopic surgery for DIE with rectum and pelvic wall involvement and received intra-ureteral ICG injection at the tertiary medical center in the period from February 2022 to May 2024.

### **Results**

Seventy-eight laparoscopies for DIE involving the rectum were performed using the intra-ureteral ICG injection and fluorescence-guided ureteral mapping. The surgical approaches included 56 rectal shavings, 8 rectal discoid excisions, 14 segmental resections of the rectum. The mean patient age was 35.4 years (SD ± 7.1). Average cystoscopy and bilateral ureteral ICG injection time was 10.8 minutes. No patients experienced intraoperative ureteral trauma and immediate or delayed complications related to ICG injection.

### **Conclusions**

The ureteral injury occurred in up to 1% of laparoscopic endometriosis surgeries. It carries significant morbidity potential leading to recurrent surgery, prolonged hospitalization, and long-term complications. Our technique of intra-ureteral ICG injection followed by intraoperative fluorescence-guided ureteral visualization has the potential to reduce the risk of inadvertent ureteral injury, improve surgical precision, and leads to shorter operative time and faster patient recovery.

<https://player.vimeo.com/video/980117370?autoplay=1>

**ABST-0007 - P199**

**ePoster and Video Presentations**

**Laparoscopic Hysterectomy Without Uterine Manipulator, A Novel Approach And Step By Step Description Of Our Technique.**

*Andreas Kavallaris<sup>1</sup>, Stergios Kopatsaris<sup>2</sup>, Antonis Gkoutzioulis<sup>1</sup>, Panagiotis Papandreou<sup>1</sup>, Sofia Papadimitriou<sup>1</sup>, Dimitris Zygouris<sup>1</sup>*

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**Background**

The Background of this retrospective study was to evaluate the feasibility and safety of Total Laparoscopic Hysterectomy (TLH) without a manipulator or any vaginal tube. The aim of this novel technique was to avoid injuries to the cervix and vaginal wall but also to avoid cancer cells spread in case of cervical or endometrial cancer or precancer cases. We describe our technique step by step and present our data on intra-operative and post-operative morbidity.

**Methods**

Between January 2011 and February 2024, we performed 2642 total Laparoscopic Hysterectomies, without using any kind of uterine manipulator in women with benign and precancer (cervical intraepithelial neoplasia and endometrial hyperplasia) indications for hysterectomy. We analysed retrospectively the perioperative and postoperative outcomes. During the operation we used bipolar forceps, scissor and Laparoscopic cutting devices. The vagina was Laparoscopically sutured with absorbable individual sutures. All operations were performed by experience surgical team using the same technique and method.

**Results**

The average age was 52.1 years and BMI 27.1 kg/m<sup>2</sup>, while the mean operative time was 68 min (43-168 min), the estimated blood loss was 85 mL (20-260 ml) and the mean uterine weight was 282 g (40-1880 g). There was no case of conversion to laparotomy. A blood transfusion was required for 121 patients (2.1 %), while there was two cases of ureteral injury and three cases where the bladder was opened and fixed laparoscopically. The average hospital stay was 1.4 days. In the long term, we had 16 cases (0.6 %) of vaginal vault dehiscence and one case of vaginal vault hematoma.

**Conclusions**

TLH without the use of uterine manipulator is a feasible and safe procedure. While it is perhaps a more demanding procedure for young doctors, when performed by well-trained and experienced laparoscopic surgeons, the procedure entails a short operative time and a low complications rate. Our results prove that the use of uterine manipulator is not mandatory to perform total laparoscopic hysterectomy.

**ABST-0009 - VP002**

**ePoster and Video Presentations**

**SLN – Mapping in Endometrial Cancer Using IMAGE1 S™ Rubina – K. STORZ (ICG/NIR Technology)**

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**Background**

SLN mapping is based on the concept that the lymph drains in a specific pattern, away from the tumour and therefore, if first node (the SLN), is negative for metastasis, then the nodes after the SLN should also be negative.

**Methods**

Since 2017 we use the sentinel lymph node technique mapped with indocyanine green (ICG) dye for the treatment of endometrial cancer. For the first 40 cases between 02. 2017 until 10.2018 we performed always radical pelvic lymphadenectomy after the SLN mapping to evaluate the method and standardized our technique. However, obtaining sufficient and high surgeons experience (at least 20 cases per year) and standardized technique continues to be essential to preserving diagnostic accuracy. The data of the SLNs location were documented and evaluated.

**Results**

The following years between 11.2018 until 12.2023 we performed in 137 cases (111 endometrioid G1 and G2 and 26 high grades endometrial cancer) ultra-staging SLN mapping, explore the pelvic, the presacral and the paraaortic areas. The overall detection rate of SLNs was for the low- and intermediate-risk patients 100%, and 98% for the high-risk patients. The most common area to find the SLNs were in 72% the external iliac artery and vein, 15% the obturator fossa and 13% other areas.

**Conclusions**

SLN mapping in endometrial cancer is a feasible and safe procedure. While it is perhaps a more demanding procedure for young doctors, when performed by well-trained and experienced laparoscopic surgeons, the procedure entails a short operative time and a low complications rate.

In this video we demonstrate the feasibility and tips and tricks to perform the SLN mapping.

<https://player.vimeo.com/video/920604806?autoplay=1>

**ABST-0014 - VP004**

**ePoster and Video Presentations**

**Laparoscopic resection of schwannoma of the ischiadic nerve left in a 24 years old patient with symptoms**

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**Background**

Schwannoma is a type of nerve tumour of the nerve sheath. It's the most common type of benign peripheral nerve tumour in adults. It can occur anywhere in the body, at any age. A schwannoma typically comes from a single bundle (fascicle) within the main nerve and displaces the rest of the nerve. When a schwannoma grows larger, more fascicles are affected, making removal more difficult. Schwannomas are rarely cancerous, but they can lead to nerve damage and loss of muscle control.

**Methods**

In this Video we present the resection of a 8 cm schwannoma of the ischiadic nerve on the left side.

**Results**

Sensory Functions, the sciatic nerve does not have any direct cutaneous functions. It does provide indirect sensory innervation via its terminal branches: Tibial nerve – supplies the skin of the posterolateral leg, lateral foot and the sole of the foot. ·Common fibular nerve – supplies the skin of the lateral leg and the dorsum of the foot.

Motor functions: oInnervates the muscles of the posterior thigh (biceps femoris, semimembranosus and semitendinosus) and the hamstring portion of the adductor magnus (remaining portion of which is supplied by the obturator nerve). oIndirectly innervates (via its terminal branches) all the muscles of the leg and foot.

**Conclusions**

The patient had sensory and motory function symptoms before surgery. After the surgery and with physiotherapy the symptoms recover completely after three months

<https://player.vimeo.com/video/926164435?autoplay=1>

**ABST-0015 - VP005**

**ePoster and Video Presentations**

**Laparoscopic retroperitoneal sacrocolpopexy (descensus uteri III-IV, cystocele III-IV) using Dyna-Mesh PRR (PVDF)**

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**Background**

With this video presentation we demonstrate the feasibility and safety of laparoscopic sacrocolpopexy (LSCP)

**Methods**

Description and evaluation of the Technique in 146 Patients treated laparoscopically to repair advanced (III-IV) genital prolapsed.

**Results**

There were no major intraoperative or postoperative complications, and we had no mesh exposure or erosion. The mean hospitalization stay was 2.1 days. The laparoscopic sacrocolpopexy using DynaMesh ((PVDF) is an effective and safe technique to repair the pelvic organ prolapses. The long term anatomical functional results are very satisfactory with no major complications

**Conclusions**

LSCP using PVDF mesh was found to provide excellent anatomical and functional outcomes after a median follow-up duration of 54 months.

<https://player.vimeo.com/video/926175279?autoplay=1>

**ABST-0022 - P202**

**ePoster and Video Presentations**

**Laparoscopic sentinel lymph node (SLN) mapping in endometrial cancer using ICG and NIR technology, presenting our experience and follow up data.**

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**Background**

The most common gynaecological cancer in industrialized nations is endometrial cancer. Surgical staging with lymphadenectomy is mandatory for the decision to provide high-risk patients adjuvant therapy by defining recurrence risk. Sentinel lymph node (SLN) mapping is based on the concept that the lymph drains in a specific pattern, away from the tumour and therefore, if the first lymph node (the SLN), is negative for metastasis, then the nodes after the SLN should also be negative. Indocyanine green (ICG) and near-infrared technology have been the preferred dye for SLN because they provide a higher quality of bilateral mapping, which is an essential component of the SLN technique and method.

**Methods**

Since 2017 we use the sentinel lymph node technique mapped with ICG dye for the treatment of endometrial cancer. For the first 40 cases between 02. 2017 until 10.2018 we performed always radical pelvic lymphadenectomy after the SLN mapping to evaluate the method and standardized our technique. However, obtaining sufficient and high surgeons experience (at least 20 cases per year) and standardized technique continues to be essential to preserving diagnostic accuracy. The data of the SLNs location were documented and evaluated.

**Results**

The following years between 11.2018 until 06.2024 we performed in 164 cases (142 endometrioid G1 and G2 and 22 high grades endometrial cancer) ultra-staging SLN mapping according the ESGO and NCCN guidelines, explore the pelvic, the presacral and the paraaortic areas. The overall detection rate of SLNs was for the low- and intermediate-risk patients 100%, and 100%, and 91% for the high-risk patients, in 2 pts (8%) mapping had failed. A total of 492 SLNs (range 1- 4 SLNs) were identified and removed. A total of 162 patients (98.8%) had a successful procedure, in 93%, 151/162 pts bilateral mapping was successful. The most common area to find the SLN, were in the obturator region (73.4%, 119/162 pts). There were no differences in the SLN location on pelvic sides. In 6 pts (3.7%) positives SLNs were found and pelvic radical lymphonodectomy was performed. The overall survival rate in the SLN group after a median follow up of 37 months (range 4 – 64 months) was 100%, 162/162 pts. In 2 pts (1.2%) intraabdominal recurrence disease (peritoneal metastasis) had occurred and the pts underwent chemotherapy treatment.

## **Conclusions**

SLN mapping even in high-grade endometrial cancer demonstrates similar high detection rates and diagnostic accuracy as seen in low-grade endometrial cancers. These results suggest that SLN is an acceptable and safe procedure in surgical staging for early-stage and high-risk endometrial cancer, however, future studies are needed to support this suggestion by resolving potential areas of doubt and debate, especially for high-risk endometrial cancer cases.



**ABST-0018 - P201**

**ePoster and Video Presentations**

**Does prophylactic Tranexamic acid prior to vaginal hysterectomy reduce the amount of bleeding?  
A randomized control study**

*Ohad Gluck<sup>1</sup>, Shimon Ginath<sup>2</sup>, Ehud Grinstein<sup>2</sup>, Masha Ben Zvi<sup>2</sup>, Ron Sagiv<sup>2</sup>, Ginath Shimon<sup>2</sup>*

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**Background**

Tranexamic acid (TXA) is an antifibrinolytic agent commonly used to treat various types of haemorrhage and was proven to be effective as prophylaxis before surgeries. Although TXA was found effective in reducing blood loss in abdominal and laparoscopic hysterectomies, its effectiveness was not demonstrated in vaginal hysterectomies.

We aimed to investigate the effect of prophylactic Tranexamic acid (TXA) on the amount of blood loss in elective vaginal hysterectomy (VH) indicated for uterine prolapse.

**Methods**

This randomized control, double-blind study was conducted in a tertiary medical centre. Patients who underwent elective VH with or without concurrent colporrhaphy and/or anti-incontinence procedures were randomized into two groups. The study group received 1 gram of TXA, and the control group received Sodium-Chloride 0.9% before VH. The surgeons and the patients were blinded to the allocation. The primary outcome was an objective assessment of blood loss during the surgery. It was calculated by subtracting the weight of all used towels from the preoperative weight after the operation; 1 g of fluid was converted to 1 mL of blood. The bleeding assessment was performed in two stages. Immediately after the end of the hysterectomy and fixation of the vaginal vault using the McCall, and following completion of colporrhaphy and TOT, when performed.

Secondary outcomes included the difference in preoperative and postoperative Haemoglobin levels and intra-abdominal hematoma after surgery (according to ultrasound examination). We also studied the blood transfusion rates, bleeding-related complications, and trombone-embolic events.

**Results**

Both groups had similar backgrounds and operative characteristics.

The primary outcome of intraoperative total blood loss was lower in the study group compared to the placebo group (240±143 vs 421±240 ml, p< 0.01).

Intraoperative blood loss was also reduced when we analysed hysterectomy and concomitant procedures separately (VH: 150±90 vs. 258±149 ml, p=0.002, concomitant procedures: 93±67 vs. 162±127 ml, p=0.03).

The incidence of blood loss 500 mL was also significantly reduced in the study group (3.3% vs 26.7%, respectfully, P=0.02).

No thromboembolic events or death incidents were observed in any of the groups.

**Conclusions**

Treatment with TXA reduces the overall total blood loss and the incidence of substantial blood loss in vaginal hysterectomy. Therefore, we suggest considering the use of TXA as a prophylactic treatment before vaginal hysterectomy.

**ABST-0025 - P205**

**ePoster and Video Presentations**

**Laparoscopic nerve sparing resection of deep infiltrating endometriosis in patients of reproductive age.**

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## **Background**

Endometriosis is a chronic condition affecting 8-12% of women of reproductive age with an impact on the quality of life of patients, with personal and social consequences. The most common symptoms of endometriosis range from severe dysmenorrhea to infertility, chronic pelvic pain, bowel dysfunction and urinary tract involvement. Worldwide the laparoscopic surgery is still the gold standard procedure for the surgical treatment of the deep infiltrating endometriosis.

## **Methods**

We introduce a case series report in a time period between the 01. 2011 and 02.2024 of 106 patients with laparoscopic nerve-sparing surgery of deep infiltrating endometriosis. We describe the technique step by step and present our follow up data.

## **Results**

In all patients at least single-sided resection of the uterosacral ligaments were performed. In 62 patients, a double-sided and in 44 patients, a single-sided identification of the inferior hypogastric nerve and plexus were performed. In 6 patients bowel resection and in 5 patients anterior wall resection were performed additionally. In 5 patients bladder wall resection were performed. Postoperatively dysmenorrhoea, pelvic pain, and dyspareunia disappeared in all patients. The average operating time was 82 min (range 45-185). Postoperatively, the overall time to resume voiding function was 2 days. The residual urine volume was in all patients <50 ml at two ultrasound measurements

## **Conclusions**

Uterosacral ligament is constituted by two layers: the medial and lateral. The lateral part contains the hypogastric nerve. The radical surgery of the deep infiltrating endometriosis of the rectovaginal septum and the uterosacral ligaments with or without bowel resection can cause a serious damage of the pelvic autonomic nerves with urinary retention and the need of self-catheterization. Identification of the inferior hypogastric nerve and plexus was feasible. In our case series report no cases of bladder self-catheterization for a long or even lifetime was observed, confirming the importance of the nerve-sparing surgical procedure. Despite the small number of follow-up patients, our long term 104-month follow-up data demonstrated that deep infiltrating endometriosis with bowel involvement and radical resection was associated with significant reductions in painful and dysfunctional symptoms, a low recurrence rate (6.6%) and high pregnancy rate (36.6%).

**ABST-0027 - P056**

**ePoster and Video Presentations**

### **A rare case report of Steroid Cell Ovarian tumour**

*Carmen Tong*<sup>1</sup>

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#### **Background**

The incidence of steroid cell tumour of the ovary is only 0.1% of all ovarian tumours. Steroid cell tumours have three subtypes according to cellular origin: Leydig cell tumour arising from Leydig cells in the hilus, stromal luteoma arising from ovarian stroma and steroid cell tumour (not otherwise specified, NOS) when the lineage is unknown. As far as steroid cell tumours (NOS) is concerned; it constitutes about 56% of all steroid cell tumours. This type of tumour can be functioning and produce testosterone, leading to virilization, hyperandrogenism, and amenorrhea.

#### **Methods**

A case report to describe a rare case of Steroid cell tumour, a subgroup of sex cord stromal tumours of the ovary in a 25-year-old girl.

#### **Results**

Here we present a case of a 25-year-old who complains of sudden hirsutism, acne and dysfunctional uterine bleeding. Laboratory analysis revealed raised total testosterone, free testosterone and raised 17 alpha hydroxy progesterone. Ultrasound shows a solid nodule in the left ovary and salpingo-oophorectomy was performed. Histology confirmed it is a steroid cell tumour, NOS of the left ovary. The diagnosis was supported by the fact that her symptoms of virilization disappeared and menstrual cycle regulated after the lesions were removed. Repeat 17 alpha hydroxy progesterone, free and total testosterone normalized two months after surgery. She has been on follow-up for 5 years with no recurrence.

#### **Conclusions**

This case illustrates the importance of recognizing symptoms of virilization and to have an index of suspicion for rare ovarian tumours. Early identification is critical in order to institute appropriate surgical therapy and management.

**ABST-0029 - P207**

**ePoster and Video Presentations**

**The role of laparoscopic myomectomy in reproductive women. Presentation our follow up results of more than 500 cases in a period of 10 years**

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### **Background**

The objective of this retrospective study was to assess the current surgical method's safety in order to maintain fertility and accomplish a successful uterine repair in order to facilitate a full-term pregnancy. The main steps of the surgical technique are described and present our data on achieving pregnancy.

### **Methods**

Between 03.2013 and 06.2023, 2163 uterine and 27 cervical myomas were laparoscopically removed in 561 patients and all proved to be benign. We analysed retrospectively perioperative and postoperative outcomes. All operations were performed by the same surgical team. During the operation we used bipolar forceps, and the uterus was Laparoscopically sutured with 2-0 absorbable vicryl individual sutures. Finally, the large myomas were electrically morcellated in vitro.

### **Results**

The mean number of removed myomas was 4.2 (1- 41) and the mean size 6.8 (0,5 – 36) cm. The average age of patients was 33.5 years (range 24–48) and BMI 23.7 kg/m<sup>2</sup> (range 18.7–28.1), while the mean operative time was 78 min (43-168 min). Estimated blood loss was 110 mL (range 60-1400 ml).

In 381 cases, a Robinson drain was placed and left for at least 24 h. There was no case of conversion to laparotomy. No anaesthesiologic problems were reported. Cephalosporins were administered postoperatively in all patients, and no fever was registered. A blood transfusion was required for 61 patients (10.8 %), while there were 43 (7.7%) cases of opening the endometrial cavity. In these cases, we performed laparoscopically two-layer suturing technic for better and safer endometrial cavity closed. The average hospital stay was 1.3 days, with only 44 (7.8%) patients staying for two or more days.

After surgery 423 patients desired pregnancy and 231 (54.6%) had single pregnancy, 31 of them two pregnancies and 7 of them three pregnancies. A total number of 58 (23%) patients occur pregnancy after IVF treatment, in total 71 children were born with the help of human assisted reproductive technology (ART). Ectopic pregnancy occurs in 6 patients who underwent ART treatment. Delivery was carried out with Caesarean Section in 249 (93%) pregnancies.

### **Conclusions**

Uterine myomas are common in women in their third and fourth decade, often leading to infertility. Laparoscopic myomectomy is the preferred technique due to its short hospital stay, minimal post-operative care, lower complications rate, and short recovery time. Laparoscopic surgery is also used for large and/or symptomatic myomas. We believe, laparoscopic myomectomy performed by an experienced surgical team is a safe and feasible technique, with satisfactory pregnancy rate and a low risk of uterine rupture. We believe this procedure in compare with laparotomy is the treatment of choice for patients in reproductive age, lowering the risk of adhesions and improving the fertility of the patients.

**Modified laparoscopic Urethrocolposuspension without mesh for simultaneously treatment of Stress urinary incontinence in cases of level 2 lateral defects and a hypermobile Urethra.**

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**Background**

In cases of a stress urinary incontinence in young patients between 30- 45 years old there is in the majority of patients a hypermobile Urethra due to the avulsion of the lateral vaginal attachments of the endopelvine fascia. In these cases, the cause of the incontinence is anatomical due to the hypermobility of the Urethra and alteration of the vesicourethral angle. An isolated standard operative treatment of the stress incontinence will be only for the distal paraurethral spaces as either a tvt or Burch operation.

The standard treatment has many disadvantages:

1. Use of a synthetic mesh material in TVT
2. Not correcting the lateral defect at the insertion of the endopelvine fascia along the arcus tendinous.
3. Afterwards in advanced age of those Patients a correction of a traction cystocele which hangs behind a distal fibrous tvt or a fixed Urethra after a classical burch operation will be challenging to treat and accompanied by a high failure and recurrence rate.
4. Both suburethral tvt and burch have a relative moderate risk of overcorrection and voidance problems due to kincking of mid-urethral level.

**Methods**

Laparoscopic retroperitoneal/ transperitoneal opening of retzi space bilaterally. Exposition of arcus tendenos from symphythis pubis till region of ischial spine. Continuous suspensory loose suture between vaginal wall para urethral and para vesical above the level of bladder neck and the pectinial ligament till the level of Corona mortis and shortly before the external iliac vein (at the level of pectinopexy). Median operation time 75 min. Hospital stay 2 days. Standard pain Therapy postoperative.

Treating the lateral defect in a similar loose sutures' method as in burch operation but till a higher level of suspension. Postoperative ultrasound check shows a normmobile Urethra, corrected a&ß angles and no increased residual urine volume.

**Results**

In almost 50 Patients. Treatment of incontinence. No postoperative voidance problems. No prolonged catheterisation. During a random and also a planned follow up about 1-2% recurrence of the stress incontinence in a median period of 12 Months. No prolonged hospital stay (2 Days). No major complications or revision.

Prolonged operative time in comparison with tvt.

Limitation in Adipositas or due to incontinence preoperated patients.

## **Conclusions**

A modified Urethrocolposuspension is a reliable method of treating the paravaginal lateral defect with stress urinary incontinence in young patients at its origin of anatomical cause with an excellent results, low failure or recurrence rate and low complications profile.

<https://player.vimeo.com/video/941297868?autoplay=1>



**ABST-0036 - P058**

**ePoster and Video Presentations**

**A rare case of hemoperitoneum secondary to a ruptured ovarian ectopic pregnancy superimposed by a bleeding corpus luteum cyst.**

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## **Background**

An ovarian ectopic pregnancy is a rare form of an ectopic gestation, with an incidence of 1 in 7000 pregnancies. The diagnosis of an ovarian ectopic pregnancy is usually made intraoperatively. Despite its diagnostic challenges, ovarian ectopic pregnancies can usually be managed safely with laparoscopic surgery.

## **Methods**

We report a young girl who presented to the emergency department with an acute abdomen and elevated serum beta-human chorionic gonadotropin levels. A bedside ultrasound pelvis revealed an empty uterus and a left adnexal mass measuring 4cm x 3cm. There were also echogenic contents in the Pouch of Douglas suspicious for hemoperitoneum.

## **Results**

She subsequently underwent surgical laparoscopy for a suspected ruptured ectopic pregnancy. Intraoperatively, she was noted to have a ruptured haemorrhagic corpus luteal cyst and product of conception in the same ovary. She recovered well postoperatively and was discharged on post-operative day one. Histology confirmed an ovarian ectopic pregnancy with a concomitant ruptured corpus luteal cyst.

## **Conclusions**

Both haemorrhagic ovarian cysts, as well as ectopic pregnancies, are frequent causes of acute pelvic pain in women of childbearing age, and their similarities in clinical signs and symptoms pose a diagnostic dilemma for any gynaecologist. Additionally, scan findings of these two pathologies can be similar, making pre-operative diagnosis even more challenging. It is important to consider ruptured corpus luteal cysts, as well as ruptured ovarian ectopic pregnancies, as a rare but differential diagnosis in women presenting with acute abdominal pain, an adnexal mass, and ultrasound features of hemoperitoneum. The mainstay of treatment is a diagnostic laparoscopy, which has shown to be safe and feasible management strategy without compromising on patient safety nor ovarian function in the long run.

**Angular pregnancy and placenta accreta: Uterine wedge resection**

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**Background**

Angular pregnancy is a rare type of ectopic pregnancy and its frequency increases depending on the location of the embryo after intrauterine insemination. This presentation aims to show that radical wedge resection decisions reduce mortality and morbidity and in emergency surgeries.

**Methods**

At 36 weeks and 4 days, a 29-year-old woman with no previous pregnancies, Gravida:1 Parity:0, had a head-down position and singleton pregnancy. Pregnancy was achieved with intrauterine insemination (IUI) after 2 cycles of clomiphene citrate treatment. At the emergency department admission, the foetal heart rate was recorded at 90 beats per minute during the Nonstress Test (NST) control. The cervix was observed to be fully dilated at 10 centimetres, and active vaginal bleeding was detected. Due to foetal distress and suspicion of abruption, an emergency caesarean section was planned. The foetus weighing 2180 grams was delivered via a uterine Kerr incision line through a Phannenstiell incision, with an APGAR score of 7/8. After the placenta was retained, the uterus was removed from the abdomen and observed placental invasion and increased vascularity located in the right cornual area. Wedge resection was performed with a preliminary diagnosis of placental invasion anomaly and angular pregnancy (Figure 1A). The placenta was removed entirely from the fundus, including the wedge resection area (Figure1B,1C).

The area of defect is closed in a way that the endometrial lining is fully closed, and the area was sutured using a continuous non-locking technique with 1/0 polyglactin absorbable suture. Subsequently, the serosa and myometrium were sutured with a full-thickness continuous locking/blanket technique. After bleeding control was achieved, the myometrium was sutured at the lower segment hysterotomy line of the uterus with a continuous locking/blanket technique with a 1/0 polyglactin absorbable suture. No suturing for uterine atony, such as B-Lynch, was planned since there were no indications of uterine atony.

Figure 1: A: Intraoperative view of placental invasion and vascularisation B: Intraoperative view of wedge resection C: Placental and myometrial tissue after wedge resection



### **Results**

After the operation, the patient was monitored for one night in the adult intensive care unit. Before the surgery, the patient's hemogram indicated a haemoglobin level of 13.0 g/dl and a platelet count of  $224 \times 10^9/L$ . On the sixth hour post-operation, the hemogram showed a haemoglobin level of 11.1 g/dl and a platelet count of  $213 \times 10^9 / L$ , and the patient did not require a blood transfusion. The patient was discharged after making a full recovery on the fourth day after the operation.

### **Conclusions**

Ultrasonographic evaluation is vital in atypically located ectopic pregnancies that occur after intrauterine insemination. In case of intraoperative placental retention, excision of the placental area and wedge resection should be considered as a method that can reduce the risk of atony.

**ABST-0042 - P208**

**ePoster and Video Presentations**

**Pelvic Exenteration (PE) in gynaecologic cancer, complications and oncological outcome, DFS and OS of 11 years of follow up data.**

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### **Background**

Total pelvic exenteration (PE) is a radical operation, involving en bloc resection of pelvic organs, including reproductive structures, bladder, and rectosigmoid. PE is indicated in cases of unresponsive, recurrent pelvic cancer or for palliative intent. Careful patient selection and counselling are of paramount importance when considering patients for PE.

### **Methods**

Between January 2011 and December 2023, 26 women underwent radical pelvic surgery (Exenteration) at gynaecology oncology department St. Luke's Hospital in Thessaloniki, Greece. Data related to surgery, complications and outcomes were recorded.

### **Results**

Fifteen (15) patients underwent supra-levator anterior exenteration and 2 patients had combined LEER. Two (6) patients had supra-levator posterior exenteration and 5 patients' infra-levator total exenteration. **The 5 years Overall Survival was 54% (14 pts).**

### **Conclusions**

PE is an alternative treatment in carefully selected cases with good oncological outcomes. It is crucial though to be performed in well-organized Oncological centres, by experienced and well-trained surgeons. Prognostic factors which impact overall and recurrence-free survival were the size of recurrence and resection margins and complications rate after Pelvic Exenteration

**ABST-0043 - P060**

**ePoster and Video Presentations**

## **Primary Marginal Zone Lymphoma of the Endometrium in a Pre-Menopausal Woman: A Case Report**

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### **Background**

We report an exceptionally rare case of primary extranodal marginal zone lymphoma (MALT type) of the endometrium (PEMZL-EM) in a pre-menopausal woman in her mid-thirties.

### **Methods**

Case notes including total laparoscopic hysterectomy operation notes and intra-operative images were obtained. Scans including magnetic resonance (MR) images of the pelvis were analysed. Histology, immunohistochemistry, and DNA analysis reports were examined. The patient was consulted regarding post-operative follow-up. An expert opinion from pathologists within our department was obtained.

### **Results**

The patient had a history of chronic pelvic pain, and an MR pelvis scan revealing a bulky uterus, adenomyosis and a subserosal fibroid. She underwent a total laparoscopic hysterectomy, histology detected nodular aggregates of small lymphoid cells with a monomorphic appearance focally within the basal aspect of the endometrium and extending to the endo-myometrial junction. Immunohistochemistry detected features of lymphoid proliferation, consistent with a marginal zone lymphoma (MALT lymphoma). DNA analysis confirmed the presence of a clonal B-cell proliferation. A diagnosis of extranodal marginal zone B-cell lymphoma of the endometrium was made. Post-operative follow-up showed no evidence of lymphoma elsewhere.

### **Conclusions**

Our patient is a unique case of PEMZL-EM, being younger than the other reported cases, having a pre-menopausal status and her only presenting symptom being chronic pelvic pain. Due to the low incidence of PEMZL-EM, there is limited experience in treatment of this condition. Further research is required regarding the aetiology, pathogenesis and classification of PEMZL-EM, in addition to prognosis and management options.

**ABST-0045 - P136**

**ePoster and Video Presentations**

**Atypical endometrial hyperplasia and concomitant adult-type granulosa cell tumour of the ovary: a case report**

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**Background**

Atypical endometrial hyperplasia (AEH) is a high-grade pre-malignant condition. RCOG guideline recommends total hysterectomy for women with AEH and considering bilateral salpingo-oophorectomy (BSO) based on age, menopausal status, and personal preferences. Granulosa cell tumours (GCTs), rare oestrogen-secreting ovarian tumours accounting for 2% to 5% of ovarian cancers, are a known risk for AEH, often posing diagnostic challenges due to unremarkable ultrasonographic findings and various histologic patterns.

**Methods**

A case report of incidental finding of an adult type granulosa cell ovarian tumour, confirmed by histology after laparoscopic hysterectomy and BSO for AEH.

**Results**

A postmenopausal woman in her late 50s presented to the gynaecology outpatient clinic with abnormal uterine bleeding and an 18.7 mm thickened endometrium on ultrasound. Both ovaries could not be seen clearly. She has a BMI of 29.2kg/ m<sup>2</sup>. Past history included a benign hysteroscopic polypectomy and midline laparotomy for a ruptured appendix. She underwent an outpatient hysteroscopy which showed endometrial polyps and histology confirmed AEH.

Further ultrasound scans to rule out ovarian pathologies were inconclusive, leading to an MRI pelvis showing a 3.6 cm sub-serosal fibroma on the left ovary. Her CA 125 was 11. Gynaecology oncology MDT recommended surgical management including a total hysterectomy and BSO, which aligns with national guidelines. The surgery proceeded uneventfully, confirming AEH on histology. Unexpectedly, the right ovary showed an adult-type GCT with spindled morphology, confirmed through immunohistochemistry after multiple MDT discussions. The final diagnosis is FIGO stage 1A granulosa cell tumour which does not warrant further surgery or chemotherapy and expects a good prognosis.

Regarding the surveillance strategy, the current National Comprehensive Cancer Network guideline recommends having physical examinations and repeating tumour markers, if they were originally elevated, for the first two years, every two to four months, and then every six months thereafter.

**Conclusions**

while the current first-line recommendation for AEH is performing total hysterectomy +/- BSO as surgical treatment, in cases of recurrent endometrial polyp without obvious risk factors for AEH, a high index of suspicion must be maintained for potential additional oestrogenic sources. Appropriate imaging tests to rule out concomitant ovarian tumour e.g. MRI should be considered when ultrasound is inconclusive or showing suspicious features. This case also highlights the importance a multidisciplinary approach for rare cancer cases in terms of management and follow-up.

**ABST-0047 - P137**

**ePoster and Video Presentations**

## **The Impact of Deep Endometriosis Surgery on Chances of Spontaneous Conception: A Literature Review**

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### **Background**

Deep endometriosis (DE), the most severe form of endometriosis, is commonly associated with infertility. The aim of this presentation is to discuss the role of surgical management of DE in achieving a spontaneous conception.

### **Methods**

Review of the available literature focusing on spontaneous pregnancy rates (SPR) following DE surgery in women wishing to conceive, with or without known pre-operative infertility.

### **Results**

Following DE surgery, pregnancy rates exceeding 60% (with the majority of conceptions being spontaneous) may be anticipated, based on the existing literature. Identifying, however, the exact impact of DE, and its surgical removal, on natural conception is highly challenging. The surgical approach should be favoured in symptomatic patients with pregnancy intention. Limited data from infertile patients suggest that outcomes may not differ from patients without known infertility. Complex DE surgery carries a risk of serious complications; therefore, it should be performed in centres of expertise. Such complications may, however, not have a significant negative impact on fertility outcomes, according to limited available data. Regarding the surgical route, the feasibility of minimal access approach (laparoscopic or robotic) in DE surgery has been well demonstrated and evidence suggests a clear benefit over laparotomy in terms of chances of SPR. The duration of attempts for spontaneous pregnancy should be tailored, taking into account other factors (e.g. patient's age), however, a period of 9-12 months post- surgery may seem reasonable in most cases. Data on obstetric outcomes of spontaneous conceptions after DE surgery are too scarce. In asymptomatic, infertile patients the debate between primary surgery or Artificial Reproductive Technology is ongoing, until randomized studies report their results.

### **Conclusions**

Surgical treatment of DE appears to increase chances of spontaneous conception in appropriately selected patients, wishing to conceive. However, our recommendations, still in present day, are mostly based on retrospective, observational data. DE surgery should, ideally, be performed in centres of expertise in order to reduce risk of serious complications. In the decision to operate or not, the clinician should objectively present the available evidence to the patient and a mutual agreement should be reached, based on the clinical scenario as well as the patient's preferences and expectations.

**Multidisciplinary healthcare for women with Mayer-Rokitansky-Küster-Hauser syndrome**

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**Background**

To study the provision of multidisciplinary care for women with MKRH syndrome in a centre of expertise for 10 years.

**Methods**

A retrospective cohort study by medical file review was performed. Women with MRKH syndrome were included in case they had at least one gynaecological consultation regarding the diagnosis or neovaginal treatment at the Radboud university medical centre (Radboudumc) between 2012-2021. The data concerning characteristics, diagnostics, therapy, social embedding, psychological aspects, sexual aspects, multidisciplinary approach, and follow-up was extracted. Data was analysed through descriptive statistics in IBM SPSS Statistics 25.

**Results**

There were 112 women with MRKH seen for consultation and 85 met the inclusion criteria. The median age of diagnosis was 16 (12-29) years. In 59 women (72%) the diagnosis was made in secondary care. In 53 women, a vaginal examination (66%) was described, in 57 women hormonal laboratory tests (67%), in 29 women genetic tests (34%), and in 71 women MRI (92%). Renal anomalies occurred in 19% of women. Forty women (51%) consulted a psychologist, 12 (15%) a sexologist, and 7 (9%) a pelvic physiotherapist. Nineteen women (35%) were in contact with a peer. Forty-nine women (58%) started dilation therapy. Twelve women (14%) underwent a neovaginoplasty of whom 9 (75%) underwent a Davydov procedure, and 3 women (25%) underwent a Vecchietti procedure.

**Conclusions**

Although all women with MRKH syndrome had had medical diagnostics, only half of them made use of recommended multidisciplinary options when offered.



**ABST-0055 - P062**

**ePoster and Video Presentations**

**Successful minimally invasive management of a voluminous cervical pregnancy: an integrated approach for fertility preservation**

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**Background**

We aim to report a case detailing the successful management of a voluminous cervical ectopic pregnancy (CEP) at nine weeks gestation using minimally invasive techniques, with a focus on preserving fertility and minimizing haemorrhagic complications

**Methods**

A 25-year-old nulliparous woman with a history of uterine curettage presented with a suspected CEP at nine weeks gestation. Diagnostic workup revealed an empty uterine cavity and a voluminous cervical pregnancy with an embryo measuring 19.5mm and no cardiac activity. Initial  $\beta$ -hCG levels were notably elevated at 109,850 IU/L, indicating a high risk of haemorrhage. A multi-step conservative treatment approach was employed, including emergency preventive uterine artery embolization (UAE), in situ methotrexate (MTX) administration with transvaginal ultrasound guidance, oral mifepristone, and intramuscular systemic MTX. Regular follow-up monitoring was conducted via  $\beta$ -hCG levels and transvaginal ultrasound examinations.

**Results**

The patient's  $\beta$ -hCG levels exhibited a rapid decline, dropping by half within nine days and becoming negative by day 104 post-treatment. No complications were experienced. Serial transvaginal ultrasound assessments revealed a gradual decrease in the size of the cervical mass, leading to its complete disappearance at six months post-treatment. Diagnostic hysteroscopy performed at seven months post-treatment demonstrated a normal uterine cavity without trophoblastic retention or synechiae and the patient resumed normal menstrual cycles.

**Conclusions**

Minimally invasive management combining UAE and in situ MTX represents a successful strategy for advanced CEP, particularly in cases with elevated  $\beta$ -hCG levels and significant embryo dimensions. This strategy effectively mitigates haemorrhagic risks and preserves fertility without the need for intrauterine or intracervical surgery. The addition of mifepristone to the treatment regimen may have contributed to the favourable outcome, although further research is warranted to elucidate its role in non-tubal ectopic pregnancies. The proactive use of preventive UAE, prior to initiating medical treatment, represents a novel approach deserving consideration in cases of advanced CEP. Overall, this case underscores the importance of individualized management strategies tailored to the patient's clinical presentation and risk profile, offering promising prospects for future fertility outcomes in similar cases.

**Infiltrating bladder endometriosis: A case report**

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**Background**

Present a rare case of bladder endometriosis with non-specific symptoms.

Stress the importance of clinical acumen and imaging for accurate diagnosis.

Discuss treatment options, especially surgical intervention for symptom relief and bladder preservation.

**Methods**

1. Clinical data collection from a 32-year-old woman with pelvic symptoms.  
Diagnostic workup: pelvic ultrasound and <sup>1</sup>H-MRI confirming bladder endometriosis.  
Treatment: conservative measures and laparoscopic partial cystectomy.  
Post-operative follow-up to assess outcomes and recurrence.

**Results**

1. Ultrasound and MRI confirmed bladder endometriotic nodules.  
Conservative therapy provided temporary relief, leading to surgery.  
Histopathological examination confirmed bladder endometriosis.  
Post-operative recovery was uneventful, with symptom resolution.

**Conclusions**

1. Bladder endometriosis warrants careful diagnosis and management.  
Surgical intervention, notably laparoscopic partial cystectomy, is often necessary for symptom control.  
Physician awareness is crucial for timely intervention and improved outcomes.

**ABST-0057 - P064**

**ePoster and Video Presentations**

**Title: Retrospective Analysis of Hysterectomy Cases for Endometriosis: Identifying Areas for Improvement in Patient Management**

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**Background**

Endometriosis is a prevalent gynaecological condition characterized by the presence of endometrial-like tissue outside the uterus, commonly causing pelvic pain and menstrual irregularities. Hysterectomy is often considered a last resort for managing severe endometriosis when other treatments fail to provide relief. However, the decision to undergo hysterectomy warrants careful consideration, as it is associated with significant implications for a patient's reproductive and overall health. This retrospective analysis aims to evaluate the management of patients undergoing hysterectomy for endometriosis in the Darlington Memorial Hospital (DMH). Specifically, the study seeks to assess preoperative evaluation, treatment modalities, surgical approaches, histological findings, postoperative follow-up, and identify areas for improvement in patient care.

**Methods**

Data were collected from June 2023 to November 2023 from medical records of patients who underwent hysterectomy with endometriosis as the primary indication. A total of 13 cases were audited, relevant clinical information was extracted, including symptoms, diagnostic imaging results, medical management, waiting times before surgery, previous surgeries for endometriosis, surgical approaches, histological findings, and postoperative follow-up.

**Results**

Pelvic pain, menorrhagia and dysmenorrhea were predominant symptoms among the audited cases (n:8;30%, n:7;26%, n:6,22%). Diagnostic ultrasound revealed normal findings in 8 cases (61%), while 4 cases (31%) showed evidence of endometrioma or deep endometriosis, no ultrasound was done in 1 case (8%). MRI was performed in 5 cases, detecting adenomyosis in 3 cases, endometrioma in 1 case and normal MRI in 1 case. Regarding medical management, 5 patients used Mirena coil (38%), 3 patients opted for oral contraceptive pills (OCCP) (23%), 3 cases tried progestin-only pills (POP)(23%), 3 cases used gonadotropin-releasing hormone (GNRH) analogues(23%), 3 cases were prescribed Dienogest (23%) and one case was on no medication (8%).

waiting time before hysterectomy ranged from 6 to 25 months, 5 patients waited for 24-25 months (38%). No complications happened in all audited cases. 7 patients had undergone previous surgeries for endometriosis (54%), with histological confirmation of endometriosis in 3 cases (23%). Laparoscopic hysterectomy was preferred surgical approach in majority of cases(n:9;69%), while others underwent open, vaginal, or robotic procedures (n:2;15%, n:1;8%, n:1;8%). Post-hysterectomy histology frequently confirmed adenomyosis in 7 cases (54%). Of all the cases, only one case (8%) had a scheduled follow-up appointment, with vast majority (92%) not having one.

## **Conclusions**

This retrospective analysis highlights areas for improvement in the management of patients undergoing hysterectomy for endometriosis. The extended waiting period before surgery for certain patients suggests possible delays in timely intervention, although no complications were recorded during the study period. It is particularly crucial to improve postoperative follow-up protocols to monitor symptom improvement effectively. Tackling factors contributing to surgical delays, including waiting times, is essential to improve overall patient outcomes. Implementation of telephone reviews for all cases could facilitate more efficient follow-up and management of postoperative outcomes.

**ABST-0350 - P041**

**ePoster and Video Presentations**

**Persistent low levels of  $\beta$ -hCG led us to an unexpected finding of tumor. How to avoid delays in diagnosis within childbearing age patients?**

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**Background**

Given a yearly incidence of ovarian germ cell tumours of 4:100,000, positive  $\beta$ -hCG associated to an adnexal mass in a woman in their reproductive years must be considered as an ectopic pregnancy (EP) until proven otherwise. In some rare cases, neoplasms can mimic an EP. It is the case of malignant germ cell tumours (GCT) of the ovary. GCTs account for 2-5% of ovarian cancers and mainly affect adolescents and young women.

**Methods**

We report the case of a 25-year-old G1P0 patient with no notable medical history. The patient had been diagnosed with a spontaneous miscarriage 6 months earlier however the pregnancy has never been visualized and a persistent low level of  $\beta$ -hCG was observed (minimum 4 UI/L on several blood samples), without complete negativisation. Due to the lack of any symptom and the diagnosis of complete miscarriage, follow-up was therefore stopped.

Four months later, the patient presented to the emergency department with pelvic discomfort and a delayed period.  $\beta$ -hCG value was at 714 UI/L and progesterone at 3.7 nmol/l. A pelvic ultrasound showed a suspicious image for EP in the left adnexal region of 11x11mm and an anechogen cyst of 24x41x16 mm on the right ovary with hypervascular doppler signal mimicking a corpus luteum. An EP was diagnosed. According to our protocol, the patient received two consecutive intramuscular (IM) doses of methotrexate (MTX). Due to unfavourable  $\beta$ -hCG evolution despite administering a second MTX injection, the patient finally underwent laparoscopy, which confirmed the ovarian cyst on the right adnexa. A right ovarian cystectomy was performed.

**Results**

The histopathological analysis revealed a mixed germ cell tumour with a component of embryonal carcinoma (60%), yolk cell tumour (35%) and choriocarcinoma (5%) and a minimal component of mature teratoma. A blood analysis showed an alpha foetoprotein (AFP) at 86 ng/ml and a free hCG at 0,29 pg/l. No distant lesions were found on the PET-CT scan. Following the diagnosis, the patient underwent a second surgery with an oocyte retrieval, right oophorectomy and partial omentectomy. FIGO IC3 stage was determined. Adjuvant chemotherapy was initiated. The patient is still under chemotherapy.

**Conclusions**

This case demonstrated a rare finding of a mixed germ cell tumour, and how the diagnosis can be complex when dealing with fertile patients.

Although the incidence of hormone-secreting neoplasms is rare, they must be considered when the diagnosis of an EP is unclear and the  $\beta$ -hCG kinetics is unusual. Delays in diagnosis could lead to an advanced stage, potentially limiting treatment options.

**Robotic total hysterectomy using multichannel umbilical ports**

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**Background**

Robotic surgery has recently attained widespread practice worldwide, and its scope of application is also expanding. However, the robotic surgical equipment currently used in most robotic surgeries is the da Vinci model. The surgical instruments supported by the da Vinci model are not as diverse as expected, and there are limitations in their range of use during surgery and inadequate performance. Accordingly, the author aimed to evaluate and report the feasibility of robotic surgery using an umbilical multichannel port that can utilize surgical instruments employed during laparoscopic surgery.

**Methods**

The operation was a robotic total hysterectomy performed using a da Vinci Xi model. During such surgery, three robotic arms were used, and the procedure was performed using a camera arm and two surgical arms. The patient's umbilicus was incised approximately 2 cm in an open manner, a wound retractor was placed, and a single-port laparoscopic surgical port was used to cover the wound retractor. The abdominopelvic cavity observation was performed using a laparoscope with a camera to determine whether the surgery would proceed. If the decision was made to proceed with surgery, a robotic surgical trocar was installed after making an 8 mm long skin incision approximately 8.5 cm away on the left and right sides of the umbilicus. The surgery was performed via the insertion of energy devices and suction and irrigation devices (which are laparoscopic surgical instruments) by a surgical assistant through a multichannel port in the umbilicus and the use of these devices during surgery when necessary. Additionally, a passage for inserting suture materials was utilized when suturing was necessary.

**Results**

By performing surgery using laparoscopic surgical instruments, which are somewhat superior to energy device instruments (such as vessel sealers installed in the da Vinci surgical equipment) and suited the operator's preference, bleeding was reduced, and the surgical procedure was performed quickly. This posed a positive advantage in shortening the overall operation time. The laparoscopic surgical instruments that were needed and preferred by the operator could be used without restrictions.

**Conclusions**

Robotic surgery using da Vinci equipment allows more precise and delicate surgical procedures than does conventional laparoscopic surgery, but the limitations in the diversity of supported surgical instruments can be overcome by using existing laparoscopic surgical instruments with multichannel

ports in the umbilicus. Applying these modified surgical techniques, it is possible to perform more efficient and safer robotic surgeries. With the development of additional instruments and equipment, it is expected that markedly improved robotic surgery will be possible.

**ABST-0066 - P068**

**ePoster and Video Presentations**

**Review of local management and outcomes of Tubo-ovarian Abscess (TOA) at UK teaching hospital : Mid Yorkshire Teaching Hospital**

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**Background**

Review local inpatient management of Tubo-ovarian Abscess (TOA) within gynaecology services. Explore the role of surgical management and radiological drainage in case management. Assess the length of hospital admission related to TOA.

**Methods**

Retrospective audit of all TOA admissions over 1 year period (September 2022-September 2023). Data was captured using Clinical Record Interactive Search system (CRIS) of radiologically confirmed TOA. Analysis of data related to TOA size, site, duration of admission, intervention including conservative intravenous antibiotic treatment and surgical or radiological drainage and outcomes.

**Results**

28 admissions secondary to TOA were identified, including 3 readmissions. 6 were bilateral TOA and 16 (57%) cases were significant in size (>6cm). Surgical management was undertaken for 10 cases. A range of surgical procedures were performed for management. A complete or initial laparoscopic approach was favoured (78%). The type of surgical intervention ranged from laparoscopic washout only to laparotomy with total abdominal hysterectomy (TAH) and bilateral salpingo-oophorectomy (BSO). A laparoscopic washout alone was only successful in 1 case. In 2 further cases of laparoscopic washout, one required subsequent acute return to theatre for laparotomy and TAH within the same admission. The second required scheduled elective Total Laparoscopic hysterectomy (TLH) + BSO for persistent hydrosalpinx and chronic pelvic pain. Laparoscopic washout with unilateral or bilateral salpingo-oophorectomy was the most common surgical option and was effective in managing TOA.

Only 1 case was successfully drained radiologically but also required surgical intervention owing to ongoing clinical deterioration despite drainage. Length of inpatient admission was significant with most patients requiring a 3–8-day hospital stay. Maximum length of admission was 11 days. Follow up data for conservative approach showed radiological resolution in only 8 cases.

**Conclusions**

Our findings highlight the significant impact of TOA admissions over a one-year period. A notable proportion of cases presented with large TOA (>6cm), suggesting the need for surgical or radiological intervention. Surgical management was the predominant approach, with laparoscopic intervention favoured. Laparoscopic washout alone showed limited success, but washout combined with unilateral or bilateral salpingo-oophorectomy was effective.

Despite advancements in radiological drainage techniques, in our unit surgical intervention remained necessary for management of TOA. This was limited due to lack of transvaginal route drainage being offered in our unit therefore impacting suitability for drainage owing to risk of bowel injury or poor access. This promotes our need to develop local radiology drainage services.



Lengthy inpatient admissions were common, highlighting the substantial healthcare resource utilisation associated with managing TOA. In our cohort only 29% of conservative management with antibiotics alone was successful in long term radiological resolution of TOA. Earlier surgical intervention for larger abscesses in our cohort may lead to minimising hospital stays and improving patient outcomes.

**ABST-0071 - VP013**

**ePoster and Video Presentations**

**Sentinel lymph node dissection following cervical re-injection due to unilateral mapping failure.**

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<sup>1</sup>*Dokuz Eylül University, Gynecologic Oncology, Izmir, Turkey*

### **Background**

Our video purposed to show dissection of sentinel lymph nodes following cervical re-injection due to unilateral mapping failure.

### **Methods**

A 76-year-old patient presented with postmenopausal bleeding, and the endometrial biopsy revealed endometrial carcinosarcoma. Imaging did not identify any abnormal findings other than the endometrial lesion. The patient is scheduled for a laparoscopic hysterectomy, bilateral salpingo-oophorectomy, sentinel lymph node dissection (using 1688 Advanced Imaging Modalities 4K Platform<sup>®</sup>, Stryker Corporation), and omentectomy.

### **Results**

This video demonstrates the dissection of sentinel lymph nodes following cervical re-injection due to unilateral mapping failure in an endometrial carsinosarcoma case. Pathological examination revealed no metastatic sentinel lymph nodes in both side of the pelvic region.

### **Conclusions**

In conclusion, if sentinel lymph node mapping fails, cervical re-injection of indocyanin green can be performed successfully.

<https://player.vimeo.com/video/942914635?autoplay=1>

**ABST-0077 - VP016**

**ePoster and Video Presentations**

### **The Power of Microhysteroscopy: Multiple Polypectomy in a Double Uterine Cavity**

*Dominika Jasińska-Stasiaczek<sup>1</sup>, Jakub Woźniak<sup>1</sup>, Mariusz Wójtowicz<sup>1</sup>*

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#### **Background**

Endometrial polyps (EPs) are common gynaecological lesions, affecting approximately 25% of women. Many studies have identified the following risk factors for premalignant and malignant transformations within EPs: advanced age, nulliparity, elevated body mass index, menopausal status, symptoms of abnormal uterine bleeding, diabetes mellitus, hypertension, polycystic ovarian syndrome, use of menopausal hormonal therapy or oral contraceptives, tamoxifen treatment in breast cancer patients, and polyp multiplicity. Collectively, these factors heighten malignancy risk to an estimated 7-8%, markedly higher than the general population. In such cases, it is advisable to excise the lesions and evaluate them histopathologically.

#### **Methods**

We describe the management of an 83-year-old woman referred for hysterectomy due to suspected endometrial hyperplasia, notwithstanding negative ambulatory endometrial sampling results. The patient provided ultrasound examination report which described extensive vascularized tissue within the uterine cavity. Concomitant comorbidities substantially increased anaesthesia-related risks, precluding conventional surgical intervention. Given the patient's elevated malignancy risk profile, micro hysteroscopy was elected as an alternative therapeutic approach.

#### **Results**

The micro hysteroscopy, performed under local anaesthesia (hysteroblock), enabled effective management of the patient's condition. The procedure uncovered a bicornuate or didelphys uterus with each cavity harbouring multiple pathological malformations. Lesions were resected sequentially from each cavity across two procedural stages and submitted for histopathological evaluation, which confirmed their benign nature. Consequently, the patient preserved her uterus and circumvented high-risk surgery.

#### **Conclusions**

Modern video-guided micro hysteroscopy represents a pivotal advancement in the management of intrauterine disorders, particularly avoiding unnecessary major surgical interventions. This technique is especially pertinent for elderly patients burdened with multiple comorbidities, proposing micro hysteroscopy as a primary treatment modality in such complex clinical scenarios.

<https://player.vimeo.com/video/943983196?autoplay=1>

**ABST-0081 - VP017**

**ePoster and Video Presentations**

### **HUGO-RAS Robotic Hysterectomy with bilateral salpingectomy - a Stepwise Approach**

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#### **Background**

Hysterectomy is among the most common gynaecological surgeries, and the use of robotic technologies like the HUGO Robotic- Assisted Surgery (RAS) system has greatly improved its precision and safety, yielding better outcomes.

#### **Methods**

This video abstract outlines a comprehensive step-by-step approach to performing a hysterectomy using HUGO-RAS, showcasing techniques that focus on surgical efficacy and patient safety. We aim to provide a detailed guide that enhances the adoption and application of this advanced technology in clinical settings.

#### **Results**

The video details critical phases such as preoperative setup, system docking, port placement, pelvic cavity assessment, and specific dissection techniques like utero-ovarian ligament dissection, bladder flap creation, and uterine artery management. It emphasizes the advantages of HUGO-RAS in improving ergonomics, surgical precision, and visualization, which is critical for educating and training surgeons in adopting robotic-assisted methodologies effectively.

#### **Conclusions**

This resource aims to standardize practices and improve surgical outcomes in robotic gynaecological surgeries.

<https://player.vimeo.com/video/944142974?autoplay=1>

**ABST-0087 - VP019**

**ePoster and Video Presentations**

### **Office Operative Hysteroscopy a boon for co-morbid Postmenopausal women**

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#### **Background**

To study the feasibility of office operative hysteroscopy in postmenopausal women with bleeding and tackling the intrauterine pathology in same sitting.

#### **Methods**

A 77-year-old patient, menopausal for 20 years with hypertension and diabetes presented with on and off bleeding for one month in our university hospital. On trans vaginal sonography the endometrium was thick, hyper echoic polypoidal measuring 10-11mm, with cystic spaces. Doppler study revealed increased vascularity. within the endometrium, not extending to myometrium. Patient was counselled for office hysteroscopy without any form of premedication and anaesthesia. Her diabetes and hypertension were well controlled on medication. Diagnostic hysteroscopy was performed with Truclear elite mini and there were 2 large polyps one extending from fundus to internal os and second from above internal os to external os. Two to three polyps arising from lateral wall were identified. Areas of micro calcification with hypertrophic glands and increased neo vascularisation was noted. The vessels were linear with no loss of arborisation. The soft tissue shaver was introduced and systematically all the polyps were cut and aspirated. There was no bleeding. Our attendant gave VOCAL LOCAL anaesthesia. Patient tolerated the procedure. All the tissue was sent for histopathology. The macroscopic appearance was suggestive of benign pathology and histopathology reported as polyps with cystic glandular hyperplasia with mild atypia.

#### **Results**

Time taken for the procedure was 8 minutes and all the polyps were retrieved The Visual analogue score was 1.

#### **Conclusions**

Office operative hysteroscopy for postmenopausal patients with co morbidities with tissue retrieval system is feasible and tolerated with no complications. The entire endometrial pathology can be retrieved in the same sitting.

<https://player.vimeo.com/video/944344765?autoplay=1>

**ABST-0092 - VP021**

**ePoster and Video Presentations**

**Cocoon like syndrome with deep infiltrating endometriosis**

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**Background**

Abdominal cocoon syndrome (ACS) is a rare condition with unknown causes and most cases are still incidentally diagnosed during abdominal surgery. ACS is characterized by partial or complete cover of small intestine by a thick fibrocollagenous membrane. The aetiology of this condition is not well understood. There are two types of ACS, these are divided into idiopathic and secondary. The secondary form occurs in various situations such as abdominal surgery, familial Mediterranean fever, endometriosis, systemic lupus erythematosus, intraperitoneal chemotherapy, Peritoneal Dialysis, ventriculoperitoneal or peritoneovenous shunts, recurrent peritonitis, intraperitoneal povidone-iodine contact, gastrointestinal malignancy, abdominal tuberculosis and granulomatous peritonitis caused by infections. Although intestinal obstruction is the main clinical manifestation of ACS, there are also cases reported in the literature without intestinal obstruction. The aim of this case report to contribute to the literature the entry techniques of the abdomen and opening of adhesions laparoscopically cases such as ACS.

**Methods**

A 39-year-old lady, who completed her fertility (G2P2L3) and had two laparoscopic operations with the diagnosis of deep infiltrative endometriosis, was evaluated in the American hospital gynaecology clinic. She had severe pain with visual analogue scale 8-9. In the preoperative evaluation of the case, widespread adhesions around the uterus and retrocervical nodules were determined with ultrasound and magnetic resonance imaging. Laparoscopic operation was planned. Because of the inefficacious attempt of entrance to the abdomen in another hospital, palmar point was used as the initial abdominal entry. The anterior wall of the abdomen was completely covered with fibrous bands because of this condition we named this case abdominal cocoon-like syndrome. Fibrous bands were gradually opened with blunt-sharp dissection with the help of laparoscopic camera, scissors and LigaSure.

**Results**

Then total laparoscopic hysterectomy, bilateral salpingo-oophorectomy and appendectomy were performed in a standard manner. Ovaries were removed with patients' request after extensive counselling.

**Conclusions**

Laparoscopy is not part of the standard surgical approach in patients with ACS. There are a limited number of case reports, that have described successful excision of the membranes and adhesiolysis. We think that the technique described in the video might be useful in the management of such cases.

<https://player.vimeo.com/video/944540250?autoplay=1>

### Hysteroscopic resection of placental site trophoblastic tumour

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#### Background

Placental site trophoblastic tumour (PSTT) is a rare variant of gestational trophoblastic neoplasia (GTN). PSTT is most frequently followed by nonmolar pregnancies. PSTT is characterized by slow growth, low serum beta human chorionic gonadotropin (hCG) concentration, late-onset metastasis, resistance to chemotherapy. It is usually seen with abnormal uterine bleeding. The first treatment in PSTT is usually surgery, since it is more resistant to chemotherapy compared to other GTNs.

#### Methods

In this case report, A 31-year-old woman with G5P0Y0 applied to our clinic with  $\beta$ -HCG values that did not decrease after abortion. A hypervascular, hyperechogenic approximately 1.5 cm lesion located in the anterior of the uterus fundus was observed with transvaginal ultrasound. Hysteroscopic biopsy was planned. In the first observation of the cavity with operative hysteroscope there was no lesion in the endometrial cavity. Then, with transrectal ultrasound guidance, suspicious lesion in the endometrial cavity was entered with the hysteroscopic resector. 1.5 cm haemorrhagic lesion was observed under the resected endometrium. It was resected until safe tissue remained at the base of the lesion. Pathological examination revealed that these findings could be PSTT. the value of  $\beta$ -HCG was 7,72 a week after the operation.

#### Results

Thorax CT examination was performed, and no signs of metastasis were observed. The results were 2.47 and 0.89 week by week, respectively. Since it does not show high-risk GTN features and is stage 1 according to International Federation of Gynecology and Obstetrics (FIGO) staging, it was thought that full cure was provided with fertility-sparing surgery and the decision was made to follow up with  $\beta$ -HCG. Monthly checks were started after the  $\beta$ -HCG value was negative. The patient had no complaints and no signs of recurrence, metastasis for 6 months. She had a pregnancy after one year.

#### Conclusions

Generally, PSTT has a good prognosis when diagnosed at the initial stage, it is usually treated with surgery. Since patients with PSTT are usually young women, preservation of fertility a critical issue. Fertility-sparing surgical methods; Includes abdominal resection, laparoscopic resection, and hysteroscopic resection. But there is no data on which surgical method is more effective. In this case, we achieved complete cure with hysteroscopic resection. Uterine lesion resection, which preserves fertility, can be considered a safe and reasonable alternative for highly selected young women with PSTT.

<https://player.vimeo.com/video/944552935?autoplay=1>

**ABST-0097 - P217**

**ePoster and Video Presentations**

**Does IV tranexemic acid prior to laparoscopic hysterectomy decrease the blood loss : A prospective randomized controlled trial**

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**Background**

Laparoscopic hysterectomy is a widely performed gynaecological procedure known for its minimally invasive nature; however, concerns about perioperative bleeding remain. Tranexamic acid (TXA), an antifibrinolytic agent, has demonstrated efficacy in reducing blood loss during various surgeries. This study aims to investigate the impact of intravenous TXA administration prior to laparoscopic hysterectomy on haemostatic outcomes and patient well-being.

**Methods**

A prospective, randomized controlled trial was conducted with 45 eligible participants scheduled for laparoscopic hysterectomy. Patients were randomly assigned to receive either intravenous TXA or a placebo prior to surgery. Intraoperative blood loss, transfusion requirements, and postoperative complications were assessed. Patient-reported outcomes, including blood loss, recovery time, hospital stay and overall satisfaction, were also evaluated.

**Results**

The study revealed a significant reduction in the intraoperative blood loss among patients who received intravenous TXA compared to the placebo group. Transfusion rates were lower in the TXA group, demonstrating its haemostatic efficacy.

**Conclusions**

Intravenous administration of tranexamic acid prior to laparoscopic hysterectomy seems to reduce intraoperative blood loss, transfusion requirements, and improving postoperative recovery parameters. These findings support the integration of TXA into the perioperative management of laparoscopic hysterectomy, contributing to enhanced patient outcomes and satisfaction.



**Laparoscopic native tissue (non-mesh) management of recurrent anterior vaginal wall prolapse.**

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**Background**

Management of recurrent vaginal prolapse is a clinical challenge. Classically, the use of vaginal mesh has been suggested as an option in the management of recurrent prolapse. Vaginal mesh use, however, was associated with significant risk of mesh complications, without adding much benefit in terms of outcomes. Alternative options for surgical management of recurrent anterior vaginal wall prolapse include the use of native tissue reconstruction versus abdominal mesh insertion. Increasingly, native tissue options are being explored. We evaluate laparoscopic paravaginal repair as a native tissue option for management of recurrent anterior vaginal wall prolapse. In this abstract, we present the two-year outcomes and demonstrate the surgical technique we follow for this approach.

**Methods**

52 women with recurrent anterior vaginal wall that underwent previous hysterectomy and at least one anterior repair were prospectively evaluated. All women filled the Prolapse Quality of Life Questionnaire (P-QOL) and were examined using the POP-Q system preoperatively and post operatively. In this abstract we present the two-year outcomes. Post operatively, patients also filled the Patient Global Impression of Improvement Questionnaire (PGII). All patients signed an informed consent, and after routine laparoscopic entry, the retropubic space is opened and the bladder separated from the anterior abdominal wall and the pubic bone. A fourth port is then inserted in the suprapubic space. The bladder is then dissected medially with two fingers in the vagina, and the prolapsed para vaginal tissues are identified. The most cranial part of the prolapse is then attached in a tension free manner to the Cooper's ligaments, with two more sutures taken caudally. The process is repeated on the other side and the retropubic space is then closed. Cystoscopy is then performed to check bladder and ureter integrity.

**Results**

Surgery was completed successfully in all subjects. There was one case of cystotomy during initial bladder dissection, that was repaired and the procedure continued as planned. Surgical time ranged from 45-70 minutes with no major peri operative complications. All cases were discharged home next day. at two years, 49 women reported feeling "much better" or "very much better" on PGII. Anatomically, point Ba was < -1 in all cases at two years. There was significant improvement of voiding and overactive bladder symptoms postoperatively.

**Conclusions**

To our knowledge, this is the first study that evaluates laparoscopic paravaginal repair outcomes for recurrent anterior vaginal wall prolapse. The strengths of this study include the two-year outcomes, use of validated objective measures for prolapse assessment and the prospective study design. This study shows that laparoscopic paravaginal repair is an effective treatment option in patients with

recurrent anterior vaginal wall prolapse and should be offered as a native tissue minimally invasive option for patients with this condition.

<https://player.vimeo.com/video/944931396?autoplay=1>

## **Laparoscopic high uterosacral plication and hysterectomy for isolated apical prolapse**

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### **Background**

Uterosacral plication is a surgical method used to suspend the vaginal vault on the uterosacral ligaments, particularly following a hysterectomy. This technique allows clear identification of the ureters, and the strategic incision enhances the accurate placement of sutures medial to these structures. By addressing each uterosacral ligament individually, the normal anatomy is preserved, including keeping the rectouterine pouch open.

Compared to sacral colpopexy, uterosacral plication is preferred during hysterectomy due to the reduced risk of complications such as ascending infections, which can occur when mesh is used following a breach of the vaginal vault.

In the accompanying video, we will outline the steps of this procedure and highlighting the relevant anatomy.

### **Methods**

The patient reported a tissue protruding through her vagina, and was diagnosed with stage 3 pelvic organ prolapse quantification system (POP-Q) apical prolapse. The examination revealed multiple myomas and cystic formations on the ovaries, prompting the addition of a hysterectomy and bilateral salpingo-oophorectomy to the treatment plan. A frozen section examination was also planned for the ovarian cysts.

The abdominal entry was made through one umbilical and two auxiliary trocars. Following the established protocol for laparoscopic hysterectomy with bilateral salpingo-oophorectomy, the bilateral ureters were visualized and freed from the medial peritoneal leaf, which is the site for plication. The vaginal cuff was continuously sutured using 2/0 monofilament absorbable barbed suture. For the plication, polypropylene nonabsorbable suture was employed, starting from the right side of the uterosacral ligament and moving medially, with bites taken from the posterior vaginal fibromuscular tissue. The procedure was then repeated on the left side, moving from medial to lateral, creating a U-shaped configuration. Sliding knots were used to stabilize the first loop, reinforced by two additional knots to ensure a robust closure. To enhance suture security, an additional multifilament nonabsorbable suture was added.

The patient consented for her medical history and information to be used anonymously for educational and scientific purposes.

### **Results**

The Pelvic Organ Prolapse Quantification System (POP-Q) indicated a stage 3 apical prolapse, with the C point at +2. Postoperatively, the C point improved to -10, significantly enhancing the patient's quality of life. The total duration of the surgery was 75 minutes, with the hysterectomy and frozen section analysis accounting for 60 minutes and the plication procedure taking an additional 15 minutes. This timing is advantageous in scenarios with time constraints and where improved postoperative outcomes are desired.

## **Conclusions**

Surgical treatment for apical prolapse typically involves a suspension procedure, which may be performed with or without a hysterectomy to minimize the risk of recurrence. The choice of surgical approach is tailored to the patient's individual characteristics. Compared to other procedures, uterosacral plication is often preferred during hysterectomy due to its lower risk of mesh complications.

<https://player.vimeo.com/video/945158841?autoplay=1>

**ABST-0115 - P221**

**ePoster and Video Presentations**

**Laparoscopic subtotal hysterectomy followed by in-bag transvaginal specimen retrieval: surgical outcomes and complications.**

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**Background**

Laparoscopic subtotal hysterectomy (LSH) represents an alternative to total laparoscopic hysterectomy (TLH) for patients with presumed benign disease. LSH has become popular over the last decades due to the reported benefits associated with its adoption, such as shorter operative time, reduced risk of intraoperative complications and preservation of the sexual function. Recently, the use of in-bag transvaginal specimen retrieval through the posterior fornix has been proposed as a safe alternative to uterine power morcellators and conventional mini-laparotomy for uterine body removal following LSH. However, data regarding the morbidity of this procedure are still lacking. We here report the results of a single centre study aimed to evaluate the surgical morbidity and complications of LSH compared to TLH.

**Methods**

Data on consecutive patients who underwent LSH at the Obstetrics and Gynaecology unit of the Women's and Children Hospital of Varese (Italy) between January 2022 and March 2024 were collected and compared to a consecutive cohort of women undergoing TLH at the same institution in 2023. We collected baseline patients' characteristics, intraoperative data and surgical outcomes occurred within 30 days from surgery. Specifically, we focused on surgical related complications graded according to the Clavien-Dindo classification. Univariate analysis and multivariable models were run to determine the impact of the type of hysterectomy (LSH vs. TLH) on the occurrence of severe (Clavien-Dindo 2 or more) events.

**Results**

Overall, 430 patients were included: 84 (19.5%) LSH and 346 (81,5%) TLH. Patients in the LSH group were significantly younger (age at surgery LSH 47 (range 32-73) vs. TLH 49 (range 24-85),  $p=0,001$ ) and had significantly lower BMI (LSH 23 (range 17,5-34) vs. TLH 24,1 (range 16,5-47),  $p<0.001$ ). No other significant differences in terms of baseline characteristics were noted, including indication to surgery and uterus size. Operative time (LSH 89min (range 44-255) vs. TLH 98min (range 22-341)  $p=0.09$ ) and estimated blood loss (LSH 50mL (range 10-1000) vs. TLH 100mL (range 10-1100),  $p=0.06$ ) did not differ between the groups. Among patients undergoing LSH, conversion to conventional mini laparotomy for uterus retrieval occurred in 2 cases (2.4%). In total, 32 patients experienced Clavien-Dindo 2 or more complications: 1 (1,2%) in the LSH vs. 31 (8.9%) in the TLH group ( $p=0.001$ ). However, after adjusting for uterus weight, BMI and age, the performance of TLH was not associated with an increased risk of grade 2 or more complications (odds ratio: 4,95; 95%CI 0,60-40,67;  $p=0.13$ ).

**Conclusions**

LSH followed by in bag transvaginal specimen retrieval represents a safe alternative to TLH for patients undergoing hysterectomy for benign disease. The extremely low need for conversion to

mini-laparotomy and negligible risk of surgical related complications within 30 days from surgery might support larger adoption of this technique.

## ABST-0121 - P224

### ePoster and Video Presentations

#### Robotic-assisted abdominal cerclage: A Single-Center Journey

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#### Background

Transabdominal cerclage (TAC) is currently considered in women with a previous unsuccessful transvaginal cerclage. The placement of the cerclage can serve for all future pregnancies as it is not removed once it was placed, and following its placement, women are obligated to deliver by Caesarean delivery. Increasing evidence suggests improved neonatal survival rates following abdominal cerclage compared with repeat vaginal cerclage in patients who delivered prematurely despite a vaginal cerclage. The aim of this study is to present patient's characteristics and clinical outcomes of women following robotic assisted abdominal cerclage placed for history indicated cervical insufficiency.

#### Methods

This is a retrospective study conducted at a single tertiary university affiliated medical centre. All women following robotic assisted abdominal cerclage placement between November 2020 to February 2024 were included in the study. Data were collected from women's' medical files, including demographics, medical history, obstetrical and gynaecological characteristics, indication for cerclage placement, operative and post-operative outcomes. In addition, conception rate, pregnancy and delivery characteristics were also reviewed. Primary outcome was defined as the rate of delivery  $\geq 32$  weeks of gestation. Data are presented as mean and standard deviation.

#### Results

Sixteen women underwent robotic assisted abdominal cerclage during the study period, of them 6 (37.5%) were pregnant during the procedure. Women's mean age and body mass index were 34.4( $\pm 4.4$ SD) years-old and 35.7( $\pm 6.9$ SD) kg/m<sup>2</sup>, respectively. The mean gravida was 3.8( $\pm 1.8$ SD) with parity of 0.6( $\pm 1.0$ SD). Approximately 60% of the women had history of previous vaginal cerclage (n=9). The mean gestational age of previous miscarriages was 21.5 ( $\pm 4.6$ SD). Mean surgical duration was 136 ( $\pm 40$ ) minutes with minimal blood loss [mean: 50( $\pm 40$ SD) cc]. Two of the procedures performed during pregnancy were converted, one to open approach as the patient did not tolerate Trendelenburg and one to vaginal approach due substantial pelvic adhesions. Four of the seven women (70% of the non-pregnant) attempted to conceive, got pregnant with an average time of 3.1( $\pm 3.3$ SD) months. Six of the women included in the study (36%) had already given birth with an average gestational age of 34.7( $\pm 3.4$ SD).

#### Conclusions

Robotic assisted abdominal cerclage is a feasible option for the treatment of cervical insufficiency with low complication rate.

**ABST-0124 - VP029**

**ePoster and Video Presentations**

**Postoperative Endometriosis Second Look after Application of Anti-Adhesion Viscoelastic Gel**

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**Background**

Background: Case report detailing the surgical outcomes after application of anti-adhesion gel.

**Methods**

Methods: A case report of a 43-year-old woman after 17 months of endometriosis surgery, and months. after a caesarean section.

Surgical excision of endometriosis foci followed by application of an anti-adhesion gel. Subsequent resection of a isthmocele was an opportunity to evaluate pelvic structural integrity.

**Results**

Results: the application of an anti-adhesion gel was favourable in maintaining the integrity of pelvic anatomy. The adhesions were analysed according the American Fertility Society adhesion score, with low rate score.

**Conclusions**

Conclusion: the anti-adhesion gel was able to prevent postoperative adhesions, ensured pelvic structural integrity and resulted in a great reproductive outcome.

<https://player.vimeo.com/video/945397913?autoplay=1>



**Appendicular mucocele in gynaecological practice.**

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**Background**

Tumour formations of the right uterine appendages cannot always be differentiated from mucinous neoplasms of the appendix (MA) at the preoperative stage. According to the literature, it is traditionally believed that MA occurs more often in women than in men, the ratio is 4:1 at the age after 50 years. Today, there are 4 histological types of MA: 1) simple mucocele, or retention cyst (18%); 2) limited or diffuse hyperplasia (20%); 3) mucinous cystadenoma (52–84%); 4) mucinous cystadenocarcinoma (10–20%). In our practice, 3 cases of operative treatment of MA in gynaecological practice were identified.

**Methods**

Clinical case: A 50-year-old woman, a Mirena IUD carrier for 3 years, for the treatment of uterine fibroids and abnormal uterine bleeding, applied for an examination due to pain in the right iliac region and a slight increase in temperature to 37.-37.5 for the past 10 days. During the examination, it was found that the tumour had shifted to the right to 7-4 cm, it was sensitive to palpation, and the uterine myoma was 8 pw. Other history, physical examination, and laboratory tests were unremarkable, and there was no inflammatory leukocytosis. Transvaginal ultrasonography revealed a cystic mass in the right lower abdominal quadrant 3.9 cm in diameter. On MRI, a neoplasm of the right appendage is 7-5-4 cm, avascular and myoma of the uterus - 3 subserosa nodes of 10-5 mm each. Intraoperatively, intact 2 fallopian tubes were found, a 3-2-3 cm tumour formation of the appendix without adhesions was identified. Laparoscopic appendectomy was performed along with conservative myomectomy and bilateral salpingectomy. Histopathology showed a low-grade mucinous neoplasm of the appendix (pT4aNxMx), fibroid nodules and fallopian tubes without features. The patient had no relapses during 1 year of observation, the pain syndrome did not bother him.

**Results**

Appendiceal mucocele can present as a mass in the right fallopian tube that is difficult to diagnose on an outpatient basis, even with MRI. Treatment of appendicular mucinous cystadenoma can be successfully achieved by atraumatic laparoscopic removal of the tumour, which is safe, feasible, and has a short postoperative recovery period.

## **Conclusions**

When examining the pathology of the right uterine appendages, a thorough preoperative diagnosis is necessary, which does not always give a final answer to the clinical diagnosis. Diagnostic laparoscopy, visual and operative clinical experience of the surgeon, cytological and histological examination of intra- and postoperative results make it possible to carry out adequate treatment. It is advisable to repeat the stages and progress of the appendectomy operation by operating gynaecologists, if necessary, involve general surgeons. Patients should be counselled about doubts about the outpatient diagnosis, the pronouncement of the appropriate diagnosis after revision of the abdominal cavity and pelvis, and possible changes in the intraoperative plan.

**ABST-0136 - P150**  
**ePoster and Video Presentations**

**Time Never Heals**

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**Background**

Intra-peritoneal adhesions are frequently encountered during laparoscopic procedures for various indications. Previous surgical interventions, either open or laparoscopic, is an important cause of such adhesions.

These adhesions frequently cause abdominal and pelvic pain, gastro-intestinal symptoms, and even may be a cause of infertility in some patients.

The formation of adhesions starts early in the post-operative period, and persists along the years, even becoming denser and stronger as fibrosis prevails.

**Methods**

We hereby report a glimpse of many cases which we have managed over several years of laparoscopic practice, where adhesions formed as post-surgical consequence, persisted over several years, up to more than 3 or 4 decades, causing unexplained symptoms.

**Results**

Post-operative adhesions do not revert once formed. Instead, they persist and continue to cause various symptoms, which often end up with healthcare professional being an-aware of their causative origin, the original surgery. This is especially prominent with surgeries performed many years before.

**Conclusions**

Clinicians should be aware of the impact of past surgical interventions on adhesion formation, and the consecutive wide spectrum of apparently unrelated and unexplained symptoms. The interval between these surgical interventions and the presentation of such symptoms is irrelevant in such cases, as "time never heals" such scars and adhesions

**ABST-0137 - P151**

**ePoster and Video Presentations**

### **Suspended fertility**

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### **Background**

Post-operative adhesions are commonly encountered after open, or even laparoscopic surgeries. Post-caesarean section (CS) adhesions are a special category in such issue, as CS is considered the most common major surgery to which women are subjected, and with a rising trend in incidence.

### **Methods**

We report our experience in a tertiary referral centre of gynaecological laparoscopy, with cases of post-CS adhesions. Such adhesions do involve both genital and non-genital organs, including the tubes, ovaries, urinary bladder and intestine, both large and small.

Obviously, of particular significance for reproductive surgeons are the adhesions of the tubes and ovaries. However, we also wish to draw attention to the significance of utero-vesical adhesions, as well as the adhesions between the uterus and the anterior abdominal wall, in the aetiology of various gynaecological problems, and in particular infertility.

### **Results**

In our experience, many cases with secondary infertility following a previous CS have adhesions between the tubes and ovaries, or between either the tube and/or ovary and the lateral pelvic wall.

Furthermore, the adhesions between the uterus and the anterior abdominal wall contribute to the occurrence of infertility through promoting the development of uterine niches, and even negatively affect the feasibility and success of assisted reproductive techniques (ART), through deforming the cervico-uterine angle.

### **Conclusions**

Post-CS adhesions are a significant category among patients with secondary infertility following a previous CS. They not only impair spontaneous conception, but also negatively affect the feasibility and success of ART, what we call "Suspended uterus leads to suspended fertility"

Diagnosing and treating such adhesions seem to have a favourable effect on patients' chances of conceiving.

**ABST-0138 - P225**

**ePoster and Video Presentations**

### **Divide and conquer!**

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### **Background**

Post-operative adhesions are a nightmare for surgeons, especially when they are dense, and involve vital structures, such as the ureters or bowel loops.

With increasing frequencies of surgeries to which women are subjected, whether obstetrical, such as caesarean sections, or gynaecological, such as myomectomies, cystectomies, etc., laparoscopic surgeons are increasingly faced with such challenges.

### **Methods**

Through providing various examples from our extensive case series in a tertiary referral centre for laparoscopic surgery, we describe our approach of “Divide and Conquer” in dealing with dense and complex adhesions. This technique basically involves approaching the adhesions a small fraction at a time, dealing with the easier ones first, then isolating the denser ones, and finally demarcating the adhesions of the vital structures, which become then more approachable, and with increased safety.

### **Results**

This “Divide and Conquer” approach proved effective and safe for dealing with complex adhesions, making them more amenable to adhesiolysis, without compromising the integrity of vital structures that may be involved in such adhesions.

### **Conclusions**

Careful approach for dealing with complex and dense adhesions is of paramount importance, aiming at both alleviating patients’ complaints, and preserving the integrity and function of vital structures. These adhesions are becoming increasingly encountered by endoscopic surgeons with the current rising rates of obstetric and non-obstetric surgeries women are exposed to.

**Chronic cornual ectopic pregnancy**

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**Background**

Ectopic pregnancy is a complication of the pregnancy that is characterized by the growth of the fertilized egg (embryo) outside of the uterus. This complication commonly occurs (90%) in a fallopian tube and less commonly occurs in the ovary, cervix, or abdominal cavity.

Ectopic pregnancies are categorized based on their location:

•Caesarean scar ectopic pregnancy •Tubal ectopic pregnancy •Interstitial pregnancy • Heterotopic ectopic pregnancy •Cervical ectopic pregnancy •Ovarian ectopic pregnancy •Abdominal ectopic pregnancy •Cornual ectopic pregnancy

Cornual ectopic pregnancy is defined as a pregnancy that is abnormally located in the proximal portion of the fallopian tube, lying within the muscular wall of the uterus

The incidence of Cornual ectopic pregnancy is low, occurring in only 2%–4% of all ectopic pregnancies and accounting for less than 1% of all pregnancies.

Chronic ectopic pregnancy (CEP) is a variant of ectopic pregnancy (EP) characterized by low or absent serum human chorionic gonadotropins (hCG) level and resistances to methotrexate

**Methods**

We present a case of 20yrs p0+1 woman with history of previous heterotopic pregnancy that was managed previously medically 1yr ago present to our hospital with chronic pelvic pain and 2ry infertility

Transvaginal ultrasound demonstrated soft tissue lesion heterogenous hyperechoic showing increased internal vascularity measuring 4x3x3 cm located at left uterine Cornu

MRI was done and revealed: heterogenous mass at left uterine cornu about 4x4 cm most probably cornual pregnancy

So cornual ectopic pregnancy was suspected and a decision was made to proceed to surgical management through operative laparoscopy

**Results**

Excision of mass around 6\*5 cm extend from left cornu of uterus to left tube most likely cornual ectopic Then removal of mass through posterior colpotomy inside the endobag Left salpingectomy

## **Conclusions**

Diagnosis of Cornual ectopic pregnancy can be missed and present to us by atypical presentation like infertility Clinician awareness should be raised about this atypical presentation

<https://player.vimeo.com/video/945478259?autoplay=1>

**Immature teratoma with gliomatosis peritonei: a case report**

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**Background**

Gliomatosis peritonei (GP) is a rare case of glial tissue affecting omentum, peritoneum and lymph nodes, associated with immature teratoma (IT). Histologically, GP presents as mature glial tissue and is classified as grade 0 teratoma according to the World Health Organization grading system for IT. Although GP is associated with favourable outcomes, cases of transformation into malignant glial neoplasms have been reported. Here we present a rare case of ovarian IT associated with GP.

**Methods**

A 21-year-old nulligravid female presented with a six-month history of mild lower abdominal pain. Clinical and ultrasound assessments suggested an ovarian mass, prompting pelvic magnetic resonance imaging (MRI). The MRI revealed a large pelvic mass measuring 14.6x12.3x11.3 cm, displaying both cystic and solid components, indicative of an ovarian neoplasm, while ascites and irregularities in the omental and peritoneal regions raised concerns of carcinomatosis. Positron emission tomography-computed tomography demonstrated highly increased fludeoxyglucose-18 uptake in the peritoneal cavity and metabolically active paraaortic, supradiaphragmatic lymph nodes suggesting metastatic involvement. The diagnostic evaluation revealed elevated tumour markers: cancer antigen 125 = 271.5 (0.0-35) and alpha fetoprotein = 26 (0.00-7.89). Lactate dehydrogenase, carcinoembryonic antigen and human chorionic gonadotropin levels were normal. The patient underwent laparotomy with fertility-sparing cytoreductive surgery including left salpingo-oophorectomy along with resection of pelvic mass, supracolic omentectomy, peritonectomy from the uterovesical pouch, cul-de-sac and multiple lymph node biopsies. A biopsy from the right ovary accompanied by enucleation of a dermoid-like cyst was performed. Intraoperative histopathological examination of the mass indicated ovarian teratoma, leading to the decision not to expand the surgery further.

Histopathological analysis confirmed stage IC2, grade 3 IT, characterized by the presence of mature epithelial, mesenchymal, and neural tissue components. Immunohistochemical staining for glial fibrillary acidic protein, neuron specific enolase, and S100 protein markers confirmed the predominance of mature glial tissue, with localized positivity for OCT4 protein indicating immature neuroepithelial elements. Mature glial tissue was observed in peritoneal and omental samples, while lymph nodes showed no evidence of glial cell involvement. Isocitrate dehydrogenase 1 (IDH1) gene and IDH2 gene mutations, usually found in malignant gliomas, were not detected. The patient's postoperative course was uneventful with serum marker normalization. Oocyte vitrification for fertility preservation was conducted, alongside adjuvant chemotherapy consisting of two cycles of bleomycin, etoposide, and cisplatin and one cycle of etoposide, cisplatin.

**Results**

The most recent computed tomography imaging conducted 3 years post-operation revealed no definitive residual mass, and the patient's tumour markers continued to remain within normal ranges.



## **Conclusions**

GP is a rare condition necessitating comprehensive clinical, radiological, and histological evaluation, followed by individualized treatment strategies and long-term surveillance to monitor for disease recurrence and treatment outcomes.

**ABST-0156 - VP038**

**ePoster and Video Presentations**

### **Laparoscopic Sacrohysteropexy for Recurrence of a Stage 4 Uterine Prolapse**

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#### **Background**

Recurrent Pelvic Organ Prolapse is a common problem in urogynaecology, occurring in up to 41% of operated patients according to some studies. When symptomatic, these patients can represent a serious management challenge, especially after previous laparoscopic surgery, involving mesh suspension. This is a case presentation of a laparoscopic sacrohysteropexy for a recurrent uterine prolapse and an overview of the current recommendations and scientific evidence for managing these cases.

#### **Methods**

The patient was a 52-year-old woman with a BMI of 32 and a history of 3 spontaneous vaginal deliveries. She underwent a laparoscopic sacrohysteropexy by anterior and posterior mesh for stage 3 uterine prolapse in 2008 and reported prolapse recurrence 2 months after the surgery. She presented in clinic with a stage 4 uterine prolapse and after detailed discussion of the management options, decided to have surgical treatment. After reviewing the current recommendations and scientific evidence, we could identify virtually no recommendations for the management of her case. We presented her at our regional urogynaecological MDT, and after a discussion it was decided to perform a new sacrohysteropexy by using the old mesh if identified, or if not feasible, to use a new anterior mesh. The patient was counselled on the high risk of organ injury, conversion to laparotomy, risk of failure and recurrence of the prolapse.

#### **Results**

We performed a laparoscopic sacrohysteropexy by anterior mesh, as we could not identify the old mesh intraoperatively. There were no intraoperative complications. The intervention lasted for 5 hours, and blood loss was 200 ml. The patient was discharged on day 2 because of an episode of post-operative urinary retention. On 1 and 3-month follow-up she had a very well supported anterior compartment and a persisting stage 3 rectocele, however she was asymptomatic with it.

#### **Conclusions**

More evidence is necessary on the best management of recurrent prolapse in previously operated patients.

Repeat laparoscopic sacrohysteropexy is a feasible option for surgical management of recurrent uterine prolapse, however may not give the best anatomical results, requires expert surgeons and has long operating time.

<https://player.vimeo.com/video/945488957?autoplay=1>

**ABST-0177 - VP041**

**ePoster and Video Presentations**

### **Laparoscopic treatment of severe Pelvic Inflammatory Disease and twisted ovarian cyst**

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#### **Background**

Pelvic Inflammatory Disease (PID) refers to an unpleasant pathology that concerns several women and is often really difficult to be eliminated. PID includes a great range of unspecialized symptoms and signs and may affect several pelvic organs. PID may affect several aspects of patient's life, such as quality of life and reproduction.

The present case is about a patient who reported abdominal pain, fever and dyspareunia. The imaging investigation of the case (transvaginal ultrasound and magnetic resonance imaging) revealed a distended formation by the right ovary, free liquid in the space of Douglas and a cystic formation with haemorrhagic content and signs of torsion on the left ovary.

The aim of this presentation is to point out the steps of laparoscopic treatment of PID and excision of a twisted cyst from the left ovary.

#### **Methods**

A four-port laparoscopy was performed. After the initial inspection of the peritoneal cavity, the firm adhesions between omentum and anterior abdominal wall were divided. In the sequence, careful division of tight adhesions between the right fallopian tube and the distal part of ileum was necessary in order to create the appropriate surgical field and remove the distended right fallopian tube. After removing the attached sigmoid colon from the posterior uterine wall, the cystic formation on the left ovary was revealed and detached from the ovary without being ruptured. The cyst was removed from the peritoneal cavity in a laparoscopic bag and a final extended control of haemostasis was performed.

#### **Results**

The histopathological examination of the specimens revealed the inflammation, whereas the twisted cystic formation was identified as a cystadenoma.

#### **Conclusions**

Accurate surgical handlings are of great importance in order to deal with such extended PID and diminish the possibility of complications.

<https://player.vimeo.com/video/945533400?autoplay=1>

**ABST-0221 - VP172**

**ePoster and Video Presentations**

**“A sea of blue puts niche in view”; niche exposure after uterine perforation**

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**Background**

In a small population of patients following caesarean section, the uterine scar heals incompletely causing formation of a uterine niche, an indentation in the uterine body seen on imaging of at least 2mm. Symptoms of caesarean scar defect include abnormal uterine bleeding and secondary infertility. We present the case of a laparoscopic niche resection following uterine perforation through the niche.

**Methods**

We present the case of a 34-year-old G1P1 who presented to us with secondary infertility, hypermenorrhoea and dysmenorrhoea. She underwent an emergency caesarean section in the second stage of labour 5 years prior to presentation.

**Results**

A targeted clinical examination showed no significant findings. Transvaginal ultrasound examination showed normal ovaries bilaterally, with a uterine niche visible at the level of the endocervix. Endometrial thickness was 3mm. Diagnostic hysteroscopy was performed showing a wedge at the level of the endocervix representing the niche. A uterine manipulator was then placed in preparation for chromopertubation. At subsequent laparoscopy, dye spillage was noted through the lower uterine segment, representing uterine perforation at this level. This landmark was then used to perform a targeted niche resection with uterine reconstruction.

**Conclusions**

The world health organisation estimates approximately 18.5million caesarean sections globally each year. The increase in the rate of caesarean deliveries is directly proportional to the rate of caesarean scar defects and hence the need for increased awareness and ability in managing this complication.

<https://player.vimeo.com/video/945675233?autoplay=1>

**ABST-0254 - P082**

**ePoster and Video Presentations**

**A multicenter, randomized, single-blinded, non-inferiority clinical trial to evaluate the safety and efficacy of MONOFIX® PGCL suture compared to Quill Monoderm™ suture in laparoscopic surgery**

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## **Background**

To evaluate the inferiority of suturing efficacy and safety between Quill Monoderm™ suture and MONOFIX® PGCL suture in laparoscopic surgery for patients undergoing hysterectomy.

## **Methods**

We compared and evaluated the time required for suturing using MONOFIX® PGCL (Samyang Holdings Corp., Gyeonggi-do, Korea) suture and Quill Monoderm™ suture in laparoscopic hysterectomy surgery due to benign tumours, including uterine fibroids and adenomyosis, aged 19 years or older. Additionally, we evaluated the efficacy and safety by assessing surgical time, postoperative complication rates (related to suture-related bleeding and dehiscence), surgical site infection, change in haemoglobin levels, intraoperative blood loss, quantity of suture used, convenience for surgeons, and length of hospital stay. For the primary efficacy assessment, the time taken for suturing at the surgical site was presented with the upper limit of the 97.5% one-sided confidence interval based on the t distribution, and safety was analysed using the Two-sample t-test (or Wilcoxon's rank sum test if the normality assumption was not satisfied).

## **Results**

In laparoscopic hysterectomy surgery, the time taken for suturing at the surgical site was 11.81±5.26 minutes in the test group and 10.95±4.94 minutes in the control group, resulting in a difference of 0.86±5.11 minutes. The 97.5% one-sided confidence interval for suturing time was [NA, 2.98], demonstrating that the upper limit of the 97.5% one-sided confidence interval was less than the non-inferiority margin of 3 minutes, thereby proving the non-inferiority of the test group compared to the control group. The total surgery time for hysterectomy was shorter in the test group (109.44±45.63 minutes) compared to the control group (113.91±42.19 minutes), but the difference was not statistically significant ( $p = 0.3283$ ). The change in haemoglobin levels was -0.88±1.06 g/dL in the test group and -0.81±1.19 g/dL in the control group, with no statistically significant difference ( $p=0.8511$ ). Regarding safety, there was no statistically significant difference between the two groups. Surgeon satisfaction was higher with the test device compared to the control device.

## **Conclusions**

This clinical trial demonstrated the non-inferiority of MONOFIX® PGCL suture compared to Quill Monoderm™. Additionally, through surgeon evaluation, greater clinical applicability and convenience were observed with the test device compared to the control device, with no differences observed in safety-related parameters.

**ABST-0367 - P165**

**ePoster and Video Presentations**

### **Mini-laparoscopy versus conventional laparoscopy for the management of endometrial cancer**

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#### **Background**

We aimed to evaluate the feasibility of a mini-laparoscopic surgical approach versus standard laparoscopy.

#### **Methods**

A total of 75 patients with endometrial cancer treated by mini-laparoscopic (n=25) or conventional laparoscopic surgery (n=50) at a tertiary-care university-based teaching hospital and academic affiliated private hospital were included.

#### **Results**

There was no significant difference between the mini-laparoscopy and the conventional laparoscopy group in regard to surgical procedures. The mean operation time and the median estimated blood loss were similar ( $p=0.671$  and  $p=0.158$ , respectively). No difference was found in terms of the number of lymph nodes removed. No intraoperative complications were observed in either group. Return to the daily routine and the rate of additional analgesia requirements were similar in the groups. The mean duration of hospitalization was  $3.6\pm 1.2$  days in the mini-laparoscopy group and  $4.9\pm 3.6$  days in the conventional laparoscopy group ( $p=0.025$ ).

#### **Conclusions**

We demonstrated that mini-laparoscopic staging could be a competent technique that is performed regardless of harm by talented surgeons using state-of-the-art instruments. Mini-laparoscopic surgery, of note, appears as a further possibility to minimize surgical trauma by reducing the size of the ports without decreasing the extent and the effectiveness of the procedures.

**ABST-0263 - P083**

**ePoster and Video Presentations**

### **Retrospective assessment of quality of life in patients after various types of hysterectomy**

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#### **Background**

Hysterectomy is one of the most frequently performed gynaecological procedures and one of the most common elective surgeries in the world. Also in our department, it is one of the most common surgeries, mostly performed transvaginally with the modified McCall procedure. The aim of this study is to retrospectively assess the quality of life of patients after various types of hysterectomy, analyse and compare the results, and answer the question whether minimal invasive methods, which are the first-choice methods in our centre, has an advantage over other methods in this respect.

#### **Methods**

The study involved 420 patients. Each of them underwent hysterectomy for non-oncological reasons in our department. The most common reasons for hysterectomy were uterine fibroids, abnormal vaginal bleeding, adenomyosis, and cervical abnormalities. The procedures were performed between 2020 and 2022. The quality of life was assessed based on the following questionnaire: Pelvic Floor Impact Questionnaire - short form 7 (PFIQ-7). Further analysis of the quality-of-life assessment in our studies will be based on Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire, IUGA Revised (PISQ-IR) and Pelvic Floor Distress Inventory (PFDI-20). We used One-Way ANOVA Calculator, Including Tukey HSD, for statistical calculations. The patients did not differ statistically in terms of age, place of residence, marital status, or reasons for which they underwent hysterectomy. There were also no statistical differences in terms of body weight, the number of deliveries, route of delivery or previous abdominal and pelvic surgeries.

#### **Results**

There were no statistically significant differences between the methods of hysterectomy in terms of reproductive organ static disorders. In terms of anorectal disorders, there was a statistically significant difference in favour of transvaginal hysterectomy compared to laparotomy ( $p=0.008$ ). Micturition disorders occur statistically more often in patients after hysterectomy via laparotomy compared to laparoscopic hysterectomy and transvaginal hysterectomy ( $p=0.001$  and  $p=0.001$ ). The overall assessment of quality of life based on PFIQ-7 differs statistically significantly between hysterectomy via laparotomy and laparoscopic or transvaginal hysterectomy ( $p=0.001$  and  $p=0.003$ ).

#### **Conclusions**

According to the conducted research, patients after removal of the uterus using a minimally invasive methods (laparoscopic or transvaginal) assess their quality of life better in terms of anorectal disorders and micturition disorders. Research on other aspects of quality-of-life assessment is ongoing. This is further proof that minimally invasive hysterectomy is the best choice for this type of surgery.

**ABST-0272 - P364**

**ePoster and Video Presentations**

**Surgical Management of Stress Urinary Incontinence: Outcomes following Laparoscopic Burch Colposuspension – A single centre review**

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**Background**

**Background**

Restrictions on vaginal mesh has modified surgical options for women suffering from stress urinary incontinence. Laparoscopic Burch Colposuspension has been performed since the 1990's, offering excellent outcomes with minimally invasive surgical advantages. We present our data from a consultant undertaking BSUG mentorship program.

**Methods**

**Methods**

25 women underwent laparoscopic Burch colposuspension between 2019 to 2023 (numbers limited from pause during Covid). Outcomes assessed were operating time, surgical complications, hospital stay and voiding function post-procedure (defined as discharge home without a catheter or need for intermittent self-catheterisation). ICIQ urinary incontinence questionnaires were completed both pre- and post-procedure to assess clinical outcomes.

**Results**

Mean operative time was 97 minutes. There were no major operative complications or conversion to laparotomy. No patients required prolonged self-catheterisation. Baseline ICIQ score versus follow-up showed a statistically significant reduction (therefore improved quality of life) at all time periods up to 18 months.

Baseline ICIQ score was 16.7. At 3 months, the mean ICIQ score was 2.2 ( $p < 0.0001$ ). This benefit was maintained at 12 and 18 months, with ICIQ scores of 2.5 ( $p < 0.0001$ ) and 9.2 ( $p = 0.0402$ ) respectively. At 12 months, 90% of patients described their bladder condition as normal. 90% of patients reported being 'very much better' one-year post procedure.

**Conclusions**

This data demonstrates successful outcome from BSUG Laparoscopic Burch colposuspension mentorship program. A very high success rate, low complication rate and short hospital stay was demonstrated. With current mesh restrictions remaining in place, this surgical option will become increasingly important in the management of stress urinary incontinence.



**ABST-0283 - P251**

**ePoster and Video Presentations**

**Effectiveness and reproductive outcomes after various treatment modalities for interstitial pregnancies: a retrospective cohort study**

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**Background**

To evaluate primary treatment success after laparoscopic cornuotomy, dilation and curettage (D&C), medical treatment with systemic methotrexate (MTX) and expectant management for interstitial pregnancies.

**Methods**

We performed a retrospective cohort study with consecutive inclusion of all women treated for interstitial pregnancy at our tertiary referral centre at the Amsterdam UMC, the Netherlands between January 2016 and April 2024. D&C was performed only in partial interstitial pregnancies that did not cross the uterine serosal line. Primary outcome was primary treatment success, without the need for additional surgical or medical treatment. Secondary outcomes included beta-human chorionic gonadotropin ( $\beta$ -hCG) clearance time after primary treatment, subsequent pregnancy rate, time to subsequent ongoing pregnancy, recurrence of interstitial pregnancy and obstetric outcomes.

**Results**

A total of 46 women with an interstitial pregnancy were included. Primary treatment was laparoscopic cornuotomy in 26 (56,5%) women, three (6,5%) women underwent D&C, seven (15,2%) women received systemic MTX and ten (21,7%) women followed expectant management. A partial interstitial pregnancy was diagnosed in 4/26 (15,4%) women who underwent laparoscopic cornuotomy, in 3/3 (100%) women who underwent D&C, in 2/5 (28,6%) women who received systemic MTX and in 8/10 (80%) women with expectant management. Primary treatment success was 96,2% following laparoscopic cornuotomy, 100% following D&C, 42,8% following MTX and 80% following expectant management. Laparoscopic cornuotomy as primary treatment was more successful than MTX (96,2% versus 42,8%  $p=0,004$ ). Median  $\beta$ -hCG clearance time was 6 weeks (IQR 4,5-8,0) after laparoscopic cornuotomy, 3 weeks after D&C, 13 weeks (IQR 8,5-19,0) after MTX and 14,5 weeks (IQR 10,3-20,3) following expectant management.  $\beta$ -hCG clearance time was significantly shorter after laparoscopic cornuotomy compared to MTX ( $p=0,006$ ) and expectant management ( $p=0,008$ ). Time to  $\beta$ -hCG clearance was significantly shorter after D&C compared to expectant management ( $p=0,048$ ). In women with a wish to conceive ( $n=33$ ) the subsequent pregnancy rates were 100%, 71,4% and 60% following laparoscopic cornuotomy, MTX and expectant management, respectively. Three patients who underwent D&C did not wish to conceive. Time to subsequent ongoing pregnancy did not differ between the groups and was 59,5 weeks (median, IQR 30,8-82,5) following laparoscopic cornuotomy, 61 weeks (median, IQR 28,5-131,5) following MTX and 74,5 weeks (median, IQR 9,0-) after expectant management. Recurrence of interstitial pregnancy or uterine rupture did not occur.

## **Conclusions**

Laparoscopic cornuotomy for interstitial pregnancy shows high primary success rates, short  $\beta$ -hCG clearance time and high pregnancy rates compared to MTX. D&C shows favourable outcomes in partial interstitial pregnancies but reflects a small number of women. Time to subsequent ongoing pregnancy did not differ between various treatments. Although the choice of treatment modality was influenced by specific patient and ultrasound characteristics, these results might influence future decision making in women with interstitial pregnancy.

**ABST-0292 - VP173**

**ePoster and Video Presentations**

### **Complications in vNOTES surgery**

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#### **Background**

- To analyse the complications of surgeries performed by vNOTES in benign gynaecological pathology and the corresponding videos.
- Patient consent to present and publish this work has been previously obtained.

#### **Methods**

- A descriptive observational study. The inclusion criteria are all patients undergoing vNOTES at the Infanta Sofía Hospital in Madrid for benign gynaecological pathology throughout the year 2023.

#### **Results**

- In 2023, 94 surgeries were performed using vNOTES, of which 72 hysterectomies were performed due to benign pathology and 22 adnexal surgeries. The average age was 46 years. And the average body mass index was 27 kg/m<sup>2</sup> (19-50). The percentage of patients with previous abdominal surgeries was 9.5 %. The percentage of conversion from vNOTES to laparoscopy was 4.7 % (a total of 3 surgeries). The causes of conversion were: one case for bladder injury repair, another case for a rectal injury repair and one case due to size of the surgical piece. The intraoperative complication rate was 4.9 % (4 cases). All in the group of patients undergoing hysterectomy. The complications were: 3 bladder injuries and 1 rectal injury. The postoperative complication rate was 4.6 % (3 cases) and consisted of: A thermal injury of the ureter (solved with placement of an indwelling stent), a bladder leak (solved with placement of a urinary catheter) and a vaginal vault abscess (solved with medical treatment).

#### **Conclusions**

- The most frequent complication in our centre has been bladder injury, coinciding with what is described in the literature. The analysis of our data includes the learning curve, and this could justify the complication rate being slightly higher than that described in the literature. The analysis of our data after the advance in knowledge of the technique, for example in the transvaginal endoscopic opening of the anterior peritoneum in the vesicouterine pouch after placing the contained extraction system, has allowed us to drastically reduce the rate of bladder injury.

<https://player.vimeo.com/video/945845410?autoplay=1>

**ABST-0293 - VP063**

**ePoster and Video Presentations**

### **Dissection Strategies in a Case with Hydro-ureter and Deep Endometriosis**

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#### **Background**

The study aims to demonstrate dissection techniques on a frozen pelvis due to deep endometriosis.

#### **Methods**

A 40-year-old woman, gravida 1 para 1, had been suffering from endometriosis for 20 years. She had undergone two laparotomies for endometriosis and a caesarean section. Transvaginal ultrasonography revealed a uterus with multiple myomas and bilateral endometrioma. Additionally, she presented with second-degree right hydronephrosis, which was unsuccessfully treated with two attempts at ureteral stent placement. During laparoscopic dissection, anatomical regions were managed sequentially and systematically, without fixation on any specific area. Intestinal adhesions and their connections were identified by creating windows between the tissues. Simultaneously, vaginal examination aided in the dissection process. Following the dissection of the right hydro-ureter, a cystoscopically placed ureteric stent was used to assess for potential internal stenosis.

#### **Results**

The patient was discharged on the first postoperative day.

#### **Conclusions**

Cases with high-level adhesions benefit more from laparoscopic surgery when combined with technique and patience.

<https://player.vimeo.com/video/945850023?autoplay=1>

**ABST-0297 - VP064**

**ePoster and Video Presentations**

**Easy place, safe space! The Okabayashi space for safe identifying of the hypogastric nerve.**

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## **Background**

The nerve-sparing Okabayashi radical hysterectomy for cervical cancer, is aimed to achieve radical resection and function preservation. Nerve-sparing radical hysterectomy is recommended for a patient with 2018 International Federation of Gynecology and Obstetrics stage IB1 ( $\leq 2$  cm), IB2 ( $\leq 4$  cm), and IIA1 ( $\leq 4$  cm) cervical cancer. Radical hysterectomy can be indicated for selected patients with stage IB3 ( $> 4$  cm) and IIA2 cervical cancer. The Okabayashi method identifies the paravesical and pararectal spaces. A goal of the procedure is an intraoperative identification of the hypogastric nerve and pelvic splanchnic nerves.

## **Methods**

There are two ways to enter the pararectal space: creating the Latzko space and the Okabayashi space. The pararectal space is fenced by the internal iliac vessels laterally, the rectum medially, and the uterine artery and veins caudally. The Okabayashi and Latzko methods are similar in that they create paravesical and pararectal spaces to separate the three components (ventral, lateral, and dorsal parts) of the parametrial/paracervical tissue. The Latzko space is located by medial displacement of the ureter and the hypogastric nerve, and between the internal iliac artery and the ureter. However, an injury of the internal iliac vein and its branches during dissection of the loose areolar tissue is difficult to be controlled. With this in mind, a safe and easy method for identifying the hypogastric nerve is creating the Okabayashi space.

## **Results**

The easy way to enter the pararectal space is to separate the ureter and the hypogastric nerve as a component enveloped by the ureterohypogastric fascia from the posterior leaf of the broad ligament and the lateral side of the rectum (Okabayashi space). To identify the hypogastric nerve, we created the Okabayashi space after removing the subperitoneal fascia and thin membranous tissue between the posterior leaf of the broad ligament and the lateral side of the rectum and ureter. The ureter is moved laterally, and the hypogastric nerve is located below the mid-ureter. This nerve runs 2 cm parallel below the uterosacral ligament in the peritoneal leaf of the broad ligament. Correct tissue plane dissection will cause almost no bleeding.

## **Conclusions**

It is important to find the proper tissue plane separated by the layers of fascia, in order to minimize intraoperative bleeding. We showed simple and safe method to create the Okabayashi space in order to identify the hypogastric nerve during nerve-sparing laparoscopic radical hysterectomy.

<https://player.vimeo.com/video/945566892?autoplay=1>

**ABST-0299 - VP066**

**ePoster and Video Presentations**

**Robotic-assisted transumbilical laparo-endoscopic single-site metastatic para-aortic lymphadenectomy following radiotherapy for advanced endometrial cancer**

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**Background**

Patients with lymph nodes (LNs) metastasis of endometrial cancer (EC) are at high risk for recurrence, thus postoperative adjuvant therapy is usually required. However, in cases of positive LNs without adequate surgical nodal staging, the adjuvant treatment may fail to control relapse or progression, particularly for those with LNs macro metastasis. As a result, a second surgery for LNs dissect may become necessary. Nevertheless, radiotherapy can induce fibrosis of surrounding tissues and increase the difficulty of surgical resection. But efforts should be made to minimize surgical trauma while ensuring complete tumour resection. Therefore, we aim to illustrate the diagnosis and treatment process of a challenging case involving para-aortic LNs metastasis with advanced EC and introduce a robotic-assistant laparo-endoscopic single-site (R-LESS) approach for para-aortic lymphadenectomy following radiotherapy for this patient.

**Methods**

A 50-year-old woman diagnosed with EC underwent primarily staging surgery at another hospital. However, enlarged LNs (max 2.5cm\*2.0cm) around the inferior mesenteric artery identified by the preoperative CT scan were inadequately resected during this procedure, as the CT scan performed 3 months after surgery revealed that these enlarged para-aortic LNs remained unchanged in both size and location. With suspicion of LNs metastasis, the patient had received extended field radiotherapy at an adequate dose, combined with five cycles of chemotherapy. Nevertheless, residual lesions were still observed in the para-aortic LNs, with increased FDG uptake on PET-CT, suggesting a poor response to adjuvant treatment in this patient. Consequently, a decision was made to perform a second surgery for para-aortic lymphadenectomy. Considering the potential tissue fibrosis caused by radiotherapy, we opted for a robotic transumbilical single-port approach.

**Results**

The procedure was technically successful, with an operative duration of 118 minutes and less bleeding of 50 ml. The patient passed gas 19 hours after surgery and was discharged on the third postoperative day. Postoperative pathology confirmed LNs metastasis. The patient received three cycles of chemotherapy postoperatively, and there has been no recurrence or metastasis observed in the two years following surgery.

**Conclusions**

Lymph node dissection can serve both diagnostic and therapeutic purposes for patients with enlarged LNs who have shown poor response to radiotherapy. However, post-radiotherapy fibrosis and adhesions heighten surgical challenges, especially for those with high-level LNs metastasis. Robotic-assistant TU-LESS approach, with minimal invasion, enhanced visualization, precise and steady movements, offers a promising alternative to traditional laparoscopic methods for para-aortic lymphadenectomy following radiotherapy.

<https://player.vimeo.com/video/945854597?autoplay=1>

**ABST-0314 - VP070**

**ePoster and Video Presentations**

### **Robotic-Assisted Cytorreduction Technique in Partial Cystectomy for Deep Endometriosis: A Bladder-Sparing Approach**

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#### **Background**

Deep urinary tract endometriosis is a rare condition found in approximately 1% to 6% of patients diagnosed with endometriosis. The bladder is the most common site of involvement, and, for symptomatic patients, a partial cystectomy is the surgical treatment of choice.

We present a case in which the technique of nodule cytorreduction was applied in a partial cystectomy for deep urinary tract endometriosis.

#### **Methods**

A robot-assisted laparoscopy on a 31 years-old patient presenting with symptoms of cyclic dysuria and dysmenorrhea. Magnetic resonance imaging revealed a one-centimetre endometriotic nodular periureteral lesion on the distal left side, and a five centimetres nodule on the posterior wall of the bladder, with approximately two centimetres extending close to the mucosa, without affecting the vesical trigone.

The procedure began with left ureterolysis and identification of the hypogastric nerve, followed by the removal of the periureteral lesion. Partial cystectomy was then performed, starting with dissection of the paravesical and vesicovaginal spaces. The cytorreduction technique involved approaching the nodule from its superficial layer to its deepest, removing the disease in multiple fragments until reaching healthy tissue.

During central resection, mucosal opening occurred, allowing for inspection and excision of the diseased portion, completing the partial cystectomy. The surgery concluded with bladder closure by layers and instillation of methylene blue with saline solution, without extravasation.

#### **Results**

Complete resection of periureteral and vesical endometriotic lesions was achieved. In the bladder, there was notable preservation of healthy detrusor muscle tissue surrounding the central area affected by endometriosis, extending to the mucosa.

The patient progressed postoperatively with complete remission of both pain and urinary symptoms.

#### **Conclusions**

When combined, the partial cystectomy with the lesion cytorreduction technique may lead to greater preservation of healthy bladder tissue, without compromising complete disease removal. These factors are crucial in reducing complications and improving the postoperative prognosis of the patient.

<https://player.vimeo.com/video/945854936?autoplay=1>



**ABST-0587 - P174**

**ePoster and Video Presentations**

## **Barriers and Enablers of Same Day Laparoscopic Hysterectomies: A 4-year Experience in Northeast of England**

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### **Background**

Laparoscopic hysterectomies (LH) lead to a reduction in the average length of hospital stay and an earlier return to normal activities than other routes. The British Association of Day Surgery (BADs) acknowledges Same Day Laparoscopic Hysterectomy (SDLH) as a suitable day case surgery (DCS) to optimize elective surgery availability during both the pandemic and the period following it. This study established a foundational standard for our department by identifying and analysing key performance indicators in LH and SDLH.

### **Methods**

Design: Observational (retrospective) design, minimising resources required for the study. Method: All LH performed over 48 months (n=262, Jan 2019 to Dec 2022) were included. Paper medical notes, NHTop, TrakCare, MediViewer used to extract data that was analysed using Microsoft Excel. Factors associated with SDLH were comparatively analysed.

### **Results**

62 and 200 LH were performed from Jan 2019 to Dec 2020 (Pandemic Cohort), and Jan 2021 to Dec 2022 (Post-Pandemic Cohort), respectively. Percentage of SDLH was stable but low (17.7% in Pandemic Cohort and 15% Post-Pandemic Cohort). Recurring themes encountered in SDLH when compared to non-SDLH included younger patients, lower BMI, shorter operating time, lower EBL and reduced use of in-dwelling urinary catheters, in both cohorts.

TLH rate increased from 69.4% to 89% among all LH. Mean age and BMI increased from 48.4 to 50.1 and 30.5 to 31.3. Mean operating time was stable (147 vs 152). Estimated blood loss (EBL) reduced from 152.8ml to 138ml. In-dwelling catheter use was overall frequent (28.6%). Percentage of Total Intravenous Anaesthesia (TIVA) was low at 1.9%. Overall rates of complications were low at 2.3%.

### **Conclusions**

Enhancing the efficiency of LH and SDLH requires a collaborative effort across disciplines. This study pinpointed areas of effective practice, uncovered barriers to implementation, and identified opportunities for enhancement. Considering the overall trend of rising BMI and age, alongside the low rates of TIVA and high usage of IDC, it's imperative to place additional emphasis on these factors to ensure the successful implementation of SDLH. Implementing dedicated SDLH and enhanced recovery pathways, providing additional training for clinicians, and educating patients beforehand will promote the adoption of SDLH. Consistent audits will enhance service delivery and patient outcomes across all LH procedures.

**ABST-0321 - VP073**

**ePoster and Video Presentations**

## **Laparoscopic Management of a vascular entrapment of the Lumbosacral Trunk causing Chronic Pelvic and Thigh Pain**

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### **Background**

To demonstrate a laparoscopic approach of a woman with chronic pelvic pain due to lumbosacral trunk compression with an aberrant vein

### **Methods**

32-year-old, G1P1 C/S, A2 woman presented with chronic left lower quadrant pelvic pain radiating to the left anteromedial thigh for a year. Her pain was worsening while sitting and walking. No neurological deficit was found on the lower extremities. Dyspareunia VAS score was 6/10 from the beginning of the first intercourse, and Dysmenorrhea was 4/10 since her adolescent years. On her gynaecologic examination, the uterus was anteverted and adenomyotic, bilateral ovaries appeared normal, and cervical movements were painful. The sliding sign was positive. In the contrast-enhanced T1A and T2A MRI series, a 17-mm mass with homogeneous contrast enhancement was observed at the left iliac bifurcation level. She was initially hospitalized and treated with intravenous antibiotics and then received oral treatment to exclude pelvic inflammatory disease. Due to worsening her pelvic and left thigh pain, a decision was made for laparoscopic removal of the suspicious mass.

### **Results**

During laparoscopic view, an adenomyosis uterus and normal ovaries were observed. The left retroperitoneal space entered the pelvic brim, and the pararectal space was dissected starting from the ureter. Lymph nodes of the external and internal iliac vessels were dissected. Afterward, obturator space was entered, and obturator lymph nodes were dissected with protecting obturator nerve. After removing the pelvic and obturator lymph nodes, a notable aberrant vein was detected in the lumbosacral space between the obturator and internal iliac vein, exerting pressure on the lumbosacral trunk. This aberrant vein was clamped with Weck® Hem-o-lok® Polymer clips (Teleflex, NC, USA) and transected successfully with Voyant Maryland Fusion Device (Applied Medical, CA, USA). The lymph nodes were extracted via 10 mm EnDoBag, and the operation was completed without complications. Recovery was fast, pain was gone on the first postoperative day.

### **Conclusions**

Neurovascular entrapment can cause chronic pelvic pain and neuropathies. Diagnosing and managing this condition can be quite challenging due to its rarity. Laparoscopic decompression of the nerves provides excellent results.

<https://player.vimeo.com/video/945884547?autoplay=1>

**ABST-0359 - VP074**

**ePoster and Video Presentations**

### **T-shaped uterus and repeated implantation failure**

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#### **Background**

T-shaped uterine malformation is a rare Müllerian anomaly characterized by thickened lateral walls with hypoplastic uterine cavity. T-shaped uterine anomaly has been associated with diminishing endometrial receptivity and poor reproductive outcomes. Few observation studies have reported improvement in reproductive outcomes after hysteroscopic metroplasty. The objective of this video is to demonstrate the role of hysteroscopic metroplasty in restoring the anatomical and reproductive outcome in a patient with non-diethylstilbestrol (DES) related classic T-shaped uterus and repeated implantation failure after IVF-ET of euploid blastocysts.

#### **Methods**

The patient is a 35-year-old female G1PO with history of one spontaneous miscarriage at 5 week-gestation. She had no significant medical, surgical, or family history. She underwent 2 cycles of frozen-thawed euploid blastocyst transfer at a different clinic resulting in no pregnancy. Hysterosalpingogram (HSG) revealed a classic T-shaped uterus. Transvaginal 3D ultrasound scan (TV 3D US) revealed T-shaped uterus and partial septate uterus. The patient underwent hysteroscopic metroplasty and hysteroscopic septoplasty. The postoperative course was uneventful.

#### **Results**

Post-operative HSG and TV 3D US with SIH revealed a normal uterine cavity. One euploid blastocyst of excellent quality was transferred during a frozen-thawed natural cycle resulting in pregnancy. The pregnancy was complicated by preeclampsia. The patient delivered a healthy baby at 37 weeks and 2 days by caesarean section.

#### **Conclusions**

Classic T-shaped uterus like the Müllerian anomaly that occurred after DES in utero exposure can still occur, although it is rare. Diagnosis and surgical correction of severe forms of T-shaped uterus is imperative prior to IVF-ET and in patients with repeated implantation failure. Hysteroscopic metroplasty in such patients can improve endometrial receptivity and reproductive outcomes.

<https://player.vimeo.com/video/945921458?autoplay=1>

**ABST-0335 - VP076**

**ePoster and Video Presentations**

### **Minimally invasive approach in angular pregnancy: Hysteroscopic excision**

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#### **Background**

Angular pregnancy is a rare type of ectopic pregnancy with a rate of 0.7-4%. The gestational sac located eccentrically towards the cornual region in the uterine cavity is considered as intrauterine and causes delay in diagnosis. Although it is associated with a high rate of abortion, angular pregnancies progressing to term have been reported. There are publications reporting uterine rupture in 23-29% of patients

#### **Methods**

26 years old G1 P0 female patient. She presented to the gynaecology outpatient clinic with delayed menstruation. She was 6+0 weeks pregnant according to last menstrual period (LMP). Evaluation with Voluson E8 ultrasound showed a 5 mm gestational sac in the left cornual area. Control ultrasonography was planned 1 week later to confirm the diagnosis.

According to LMP, ultrasonography performed at 6+6 weeks in the left cornual region 9 mm gestational sac was observed. Yolk sac was observed. Foetal pole and embryo were not observed. The diagnosis was confirmed with 3D USG. It was evaluated as left angular anembryonic pregnancy. Spontaneous abortion was waited for 10 days. Hysteroscopic excision was planned after no spontaneous abortion.

#### **Results**

The uterine cavity was entered by office hysteroscopy under sedation anaesthesia.

Approximately 1 cm gestational sac located in the left cornual area was observed.

The gestational sac was separated from the endometrial margin with the help of scissors without rupturing and completely freed. Then the cavity was entered with a grasper and gestational sac was removed from the uterus without using energy.

#### **Conclusions**

Minimally invasive approaches are increasingly used in all areas of gynaecology. Minimally invasive treatment of angular pregnancy can provide, protect the patient from the possible complications of surgery and shorten the interval required for the next pregnancy. It may allow the patient to be treated without organ loss.

<https://player.vimeo.com/video/945900405?autoplay=1>

**Laparoscopic cornual resection for treatment of interstitial pregnancy**

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**Background**

Interstitial pregnancy is a rare and life-threatening form of ectopic pregnancy that occurs in the interstitial portion of the fallopian tube, also known as the cornual region. It poses a significant risk for uterine rupture and severe haemorrhage. Surgical intervention is often necessary, with cornual resection and the use of barbed sutures being common techniques.

**Methods**

Video case report of cornual pregnancy surgical management. 37-year-old G4P1 patient had 7 weeks + 5 days pregnancy. She had minimal complaints of lower abdominal pain and no vaginal spotting. Transvaginal ultrasound visualised a viable embryo (CRL of 1,02cm) in cornual region. Considering the pregnancy size, B-Hcg level (49500 U/L), and embryo cardiac activity, the patient was managed surgically.

**Results**

During laparoscopy, right interstitial pregnancy was confirmed - a neovascularised mass of 3 cm diameter in the right uterine cornual region. Diluted adrenaline solution was injected into the peri-cornual myometrium. Cornual resection was performed with an ipsilateral salpingectomy to achieve a complete removal of ectopic mass. Uterine cornua were excised en bloc using ThunderBeat device. A circumferential incision was closed with a single layer of continuous V-Loc barbed absorbable baseball suture. An INTERCEED fabric was applied to reduce adhesions. Operation time was 40 minutes; blood loss was less than 100mL. The patient was discharged the next day after the procedure. Three weeks after ultrasound showed a normal uterus, complete regression of hCG was obtained. Patient had first menstruation cycle in 7 weeks. The pathohistological report confirmed the presence of chorionic villi in the tube and myometrium.

**Conclusions**

Interstitial pregnancy is a complex condition that requires prompt diagnosis and surgical intervention to prevent serious complications. Cornual resection and the use of barbed sutures are valuable techniques in managing interstitial pregnancies, allowing for precise removal of the ectopic pregnancy and secure closure of uterine wall.

<https://player.vimeo.com/video/945904301?autoplay=1>

**Anatomical insights of vascular complications during urethral sling surgeries**

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**Background**

Transvaginal tension free tape (TVT) is a surgical procedure performed in the treatment of stress urinary incontinence (SUI), in which a synthetic mesh tape is inserted through the Retzius space.

Amongst the complications of sling insertion, bleeding remains one of the most common and severe. Indeed, in about 3% of patients, retro-pubic hematomas are formed.

The wide individual variety of vascular anastomoses that can be found at the level of the retropubic space can be the cause of these complications.

The homolateral anastomosis is called “Corona Mortis”, an anastomosis between the obturator and the external iliac or inferior epigastric arteries or veins, or even both types of connections, with wide variability.

Moreover, during retropubic surgery it is possible to encounter a large web of veins running within the paraurethral space, known as “vesical venous plexus” and the venous plexus of Santorini. These two plexus possess multiple variations that are not well known in female pelvis.

Therefore, Surgeons who decide to operate in the area of the anterior ring of the pelvis should be conscious of possible vascular variation to avoid significant hemorrhage.

**Methods**

Stepwise video demonstration of the Retzius space variable vascularization found during laparoscopic dissection of retropubic space in a University tertiary care.

**Results**

The aim of the study is to show the anatomical variations found during laparoscopic dissection of Retzius space to raise awareness concerning possible vascular complications during urethral sling surgeries.

## **Conclusions**

The TVT procedure is a minimally invasive technique with low rate of severe complications. Despite the correct positioning of the dispositive or the surgeon's experience, the blind passage of the needle into a space with so much variety of vessels can offer potential risks of which surgeons should be aware and prepared to face.

<https://player.vimeo.com/video/945901382?autoplay=1>

**ABST-0345 - VP175**

**ePoster and Video Presentations**

**Laparoscopic insight into promontory variability: a surgeon's challenge.**

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**Background**

Promontofixation, nowadays the standard surgical treatment for pelvic organ prolapse, consists in fixating the mesh to the anterior longitudinal ligament (ALL). Accessing the ALL requires dissecting the right sacral promontory (SP), a region rich in vessels, nerves, and close to the right ureter. Hence, a thorough understanding of its anatomy is vital for safe dissection.

Haemorrhage or transfusion have been reported in 4.4% of promontofixation cases in the literature. Moreover, in a study evaluating female cadavers, blind sutures through the peritoneum led to vascular injury in 50% of them.

Nevertheless, aortic and inferior vena cava bifurcation may occur lower than expected in up to 27% and 10% of patients respectively, with a trend for both older and thinner individuals. Furthermore, about 20% of patients exhibit anatomical variations in the iliac veins, irrespective of age or weight. Such variations can result in major vessels traversing over the sacral promontory, heightening the complexity and risk of the procedure.

Finally, the presacral space contains the median sacral artery and vein, whose positions can vary, either on the left or right of the midline sacral promontory or crossing it. Notably, SP can contain a complex sacral venous plexus formed by an anastomosis between the median and lateral sacral veins, indicating considerable variability in the vessel-free surface area.

**Methods**

Video demonstration of the promontory anatomical variations assessed during laparoscopic dissection in a university tertiary care centre.

**Results**

This video aims to provide a better understanding of anatomical variations in the promontory, concerning possible vascular complications during promontofixation.

**Conclusions**

In conclusion, mastering the nuances of anatomical variability in the promontory region is essential for surgeons performing laparoscopic promontofixation. By understanding the diverse anatomical presentations and employing tailored approaches, surgeons can overcome challenges and optimize surgical outcomes, avoiding complications.

<https://player.vimeo.com/video/945910715?autoplay=1>



**ABST-0351 - VP080**

**ePoster and Video Presentations**

## **Holistic Surgical Management of Umbilical Hernia and Mesenteric Vein Congestion Due to Fibroid Compression via Multidisciplinary Collaboration**

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### **Background**

We describe an acute presentation where a co-ordinated multidisciplinary approach was required involving joint surgery for uterine fibroids, umbilical hernia, and internal hernias with mesenteric vein varices caused by fibroid compression on the small bowel mesentery.

### **Methods**

We present the case of a 39-year-old woman who experienced abdominal pain and vomiting. An abdominal CT scan revealed a large pedunculated uterine fibroid and a mesenteric vasculature swirl pattern, suggesting small bowel malrotation with an internal hernia. The CT scan also showed enlarged, tortuous small bowel mesenteric veins. She had a prior admission for small bowel obstruction which was treated conservatively.

### **Results**

The patient subsequently had a joint procedure with para umbilical hernia reduction, detorsion of pedunculated fibroid and multiple uterine myomectomies, reduction of ileocaecal knotting/internal hernia, widening of the route of mesentery and closure of the laparotomy. Procedure started with opening the hernia sac and reducing of the omentum. Extensive adhesiolysis was carried out to free the pedunculated fibroid from small bowel adhesions. The endometrial cavity was breached during the myomectomy, and this was closed with Monocryl 2.0. Operative findings included a large, 10 cm pedunculated fibroid entrapped by the small bowel mesentery, along with additional fibroids in the anterior and posterior uterine walls. There were significant mesenteric varices, likely secondary to the fibroid compressing the mesentery. Ileocecal knotting and the internal hernia were corrected. The rectus sheath, fat layer, and skin were subsequently closed.

### **Conclusions**

This case emphasises the successful outcomes achieved through interdisciplinary teamwork. The collaborative approach led to resolving multiple medical issues in a single operation, highlighting the benefits of effective communication and leadership in surgical and gynaecological settings. The patient experienced significant relief and a swift recovery, demonstrating the positive impact of streamlined care on patient recovery process.

<https://player.vimeo.com/video/945904315?autoplay=1>

**ABST-0381 - VP084**

**ePoster and Video Presentations**

### **Cornual pregnancy: Laparoscopic management strategy**

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#### **Background**

Cornual pregnancy, a rare variant of ectopic gestation, accounts for 2%-4% of tubal pregnancies and carries a maternal mortality risk of 2%-2.5%. Characterized by implantation within the proximal fallopian tube adjacent to the uterine musculature, it poses a life-threatening condition.

Historically, management strategies involved hysterectomy, cornual resection via laparotomy, or conservative intervention with methotrexate (MTX). Presently, less invasive approaches focus on minimizing haemorrhage and enhancing long-term fertility and obstetric outcomes.

#### **Methods**

This is a case of a 34-year-old woman, gravida 2 para 1, presenting with pelvic pain at five weeks gestation. Ultrasonographic evaluation revealed an enlarged left cornua with no gestational sac in the midline uterine fundus or body. A heteroechoic mass measuring 2.9 x 2,8 x 2 cm with increased vascularity and a small cystic component (6 x 3 mm) was identified within the gestational sac, indicative of a cornual pregnancy.

Emergency intervention entailed using a preventative Tourniquet purse string suture around the cornua to achieve haemostasis and ensure effective closure of the defect. Informed consent was obtained from patient included in the video. The authors declare no conflicts of interest.

#### **Results**

The procedure was successfully conducted without perioperative complications, resulting in a minimal blood loss of 60 ml. Subsequently, the postoperative course proceeded uneventfully. Postoperative surveillance encompassed serial assessment of  $\beta$ -hCG levels until negativation.

#### **Conclusions**

Cornual pregnancy presents a potentially life-threatening condition requiring safe and timely intervention. Laparoscopy emerges as a secure and efficient approach for its management, particularly when meticulous preoperative planning is undertaken. Given its capacity to preserve fertility outcomes, laparoscopy should be considered the standard of care.

<https://player.vimeo.com/video/945923445?autoplay=1>

**ABST-0384 - P272**

**ePoster and Video Presentations**

**Inhaled methoxyflurane (Penthrox®) as a novel pain relief for outpatient hysteroscopy and other gynaecological procedures.**

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**Background**

Penthrox® (methoxyflurane) is a convenient, portable, self-administered disposable single-use handheld inhaler licenced as an emergency, rapid-onset, short-acting, analgesic in adult trauma patients. Outpatient hysteroscopy is one of the commonest procedures in contemporary gynaecology, but it can be associated with significant pain leading to poor patient experience and failed procedures. We evaluated the feasibility and acceptability of Penthrox® in women undergoing outpatient hysteroscopic procedures and its potential efficacy to reduce pain and improve patient experience.

**Methods**

We conducted a prospective observational cohort study on women undergoing hysteroscopy or other intrauterine procedures, such as coil fitting, endometrial biopsy, polypectomy, endometrial ablation and manual vacuum aspiration in an outpatient setting. Women were offered Penthrox® inhalers for pain control, instructed how to use it and asked to record the intra-procedural pain they expected and actually experienced using a 10cm Visual Analogue Scale. The acceptability, side effects and ease of use of the Penthrox® device were also recorded.

**Results**

122/146 (83.6%) women chose to use Penthrox®. 116 out of the 122 (95.1%) underwent an intrauterine procedure, including 59 hysteroscopic polypectomies and 34 global endometrial ablations. The average pain expected during the procedure was 6.0 (SD = 2.8) and the average pain experienced during the procedure was 5.1 (SD = 2.8). The intended procedure was completed in 117 (96%) women. Penthrox® was considered easy to use by 118 (97%) women and 111 (91%) would use it again, although 22 (18%) women would prefer general anaesthesia in the future. No adverse events occurred but 88 (72%) women reported mild, self-limiting side effects.

**Conclusions**

Penthrox® appears safe, feasible and acceptable as a pain relief option during outpatient hysteroscopy and other intrauterine procedures. The effectiveness of Penthrox® should be evaluated against conventional pain control in an adequately powered multicentre randomised controlled trial.

## Outcomes of Novel Vaginal Cerclage Assisted Laparoscopic Cervico-sacropepy Technique: Comparison with Hysterectomy Sacrocolpopexy

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### Background

The laparoscopic apical prolapse repair procedure is complex and requires specialized surgical skills, including precise dissection and suturing. Vaginal Cerclage Assisted Laparoscopic Cervico-sacropepy (VCALCS) is a surgical procedure that combines the insertion of a polypropylene mesh through the vagina to the cervical tissue, similar to a cerclage, with laparoscopic suspension to the anterior longitudinal ligament using tape arms inserted into the abdominal cavity through a posterior colpotomy. This approach offers an alternative to address the limitations of laparoscopic sacrocolpopexy, which may be challenging due to the need for extensive dissection and suturing. The aim of this study was to compare the operative times, complications and middle term anatomic outcomes of women with uterovaginal prolapse undergoing VCALCS with those of women undergoing laparoscopic sacrocolpopexy with concomitant hysterectomy (SCPH).

### Methods

A retrospective cohort study was conducted to compare operation times, anaesthesia times, estimated blood loss, middle-term outcomes, perioperative and postoperative complications.

**Surgical procedure:** The presented operation is performed in two phases, consisting of an initial vaginal surgery followed by a laparoscopic approach. As a part of technique an anterior 2-cm long transverse incision to the anterior cervicovaginal junction and dissection of bladder then posterior colpotomy were applied. Mid-urethral sling tape inserted into the cervical connective tissue. Free arms of tape are inserted into the peritoneum via posterior colpotomy. Two arms of tape are passed from the tunnel parallel and medial to a right sacrouterine fold then fixed to the anterior longitudinal ligament via laparoscopic route. We compared the results of 79 women who had the VCALCS to that of 74 SCPH.

### Results

The median follow up was 36 (12-60) months for VCALCS group and 37 (12-60) months for SCPH group. The VALS group had shorter hospitalization duration than AS group ( $p=0.01$ ). The mean operation time was significantly shorter in VCALCS group ( $77 \pm 24$  min.) than SCPH group ( $115 \pm 25$  min) ( $p<0.001$ ).

There was no significant difference in perioperative and postoperative complication rates. Objective failure rate (3.8% in VCALCS, 9.5% in SCPH), subjective failure rates (3.8% in VCALCS, 8.1% in SCPH), recurrence (2.7% in SCPH vs 0) and mesh exposition rates (2.7% in SCPH vs 0) were similar in both procedures. Reoperation rates were significantly higher in SCPH group (5.4%) in comparison to no reoperation in VCALCS group ( $p=0.03$ ).

### Conclusions

This novel cervico-sacrocolpopexy technique feasible and safe minimally invasive way to correct primarily apical or multicompartement defects with short operation time and shorter hospitalization. This technique is a promising modification for minimally invasive cervico-sacropexy especially for inexperienced in laparoscopic sacrocolpopexy.

<https://player.vimeo.com/video/945942177?autoplay=1>

**ABST-0397 - VP086**

**ePoster and Video Presentations**

**Lymph node recurrence in cervical cancer: Laparoscopic left pelvic lymph node dissection and left inguinal lymph node dissection**

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**Background**

The pelvic and the para-aortic lymph nodes are one of the most common sites in recurrent cervical cancer

**Methods**

Our case (Z.P. 56 y.o female.); was diagnosed squamos cell cervical cancer in 2019 with cervical biopsy and in imaginations parametrial involvement was found. In November 2019; bilateral pelvic-paraortic lymph node dissection, bilateral salpingooferectomy operation was performed. Final pathology result had shown us only one right pelvic lymph node was metastatic, and para-aortic lymph nodes were clear. After that patient received chemoradiotherapy and brachytherapy. At February 2023, In clinical controls, MRI and PET-CT imaginations were shown us left pelvic and left inguinal lymph nodes could be metastatic.

**Results**

Laparoscopic left pelvic lymph node dissection and left inguinal lymph node dissection was performed.

**Conclusions**

In surgical technique, After entering the abdomen, the left parametrial peritoneum was opened and the left pelvic lymph nodes were accessed. Obturator, internal iliac and external iliac lymph nodes were carefully dissected. The vessels around the lymph nodes were clipped and cut. At the end of the operation, left inguinal lymph node dissection was performed.

<https://player.vimeo.com/video/945933247?autoplay=1>

**ABST-0398 - VP087**

**ePoster and Video Presentations**

### **Cookbook for the Davydov Procedure**

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#### **Background**

When our patient presented to us, she was 40 years old and had been married for 10 years. She was aware of her condition, and there had been attempts of intercourse. Nevertheless, during our examination, she had a vaginal depth of 1.5 cm after the introitus. Additionally, multiple myomas were observed on the left side during the ultrasound examination.

#### **Methods**

A classic Davydov procedure with anatomical markings and narration was performed.

#### **Results**

On the second postoperative day, we change the mold placed at the end of the surgery. During the initial examination, a vagina depth of 15 cm is observed. We recommend the placement of the mold for at least 10 days and abstaining from intercourse until the next examination.

Long term follow-up results will be shared live.

#### **Conclusions**

the Davydov procedure is the most common technique for neovagina creation. This video presents a good guidebook for it.

<https://player.vimeo.com/video/945943138?autoplay=1>

**ABST-0401 - P279**

**ePoster and Video Presentations**

**PMB on HRT: Histopathological correlation**

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**Background**

Hormone Replacement Therapy (HRT) has witnessed an exponential increase in its use and prescription for menopausal symptoms, an average of 13.6% rise per year in the last decade. As a result, we have seen a 43% increase in referrals to gynaecology services of women on HRT with Postmenopausal Bleeding (PMB) over past 3 years. This has not only added burden on resources but also led to considerable anxiety amongst these women. We aim to study the diagnostic outcomes of women presenting with PMB on HRT.

**Methods**

Design- Retrospective cohort study.

Setting- Ambulatory gynaecology unit (AGU) in teaching hospital.

Hysteroscopy database and histological records reviewed for cohort of women with PMB on HRT referred to the AGU, from 1<sup>st</sup> January 2015 to 31<sup>st</sup> December 2020.

**Results**

315 women on HRT presented with PMB. Ultrasound findings- 66 (21%) women had endometrial thickness (ET) less than or equal to 4mm, 196 (62%) had ET more than 4mm, polyp was noted in 33 (10.5%) and fibroid in 8 (2.5%) cases. In 10 (3%) women ET could not be determined and 2 women did not have scan.

Histology confirmed proliferative endometrium in 92 (29.2%) cases, secretory in 8 (2.5%), inactive endometrium in 71 (22.5%), benign polyp in 106 (34%) and fibroid in 4 (1%) cases.

There were only 2 (0.6%) cases of endometrial cancer, 1 polyp with atypical hyperplasia (0.3%) and 1 endometrial hyperplasia without atypia (0.3%). There were 24 (7.6%) cases of insufficient sample. 2 women, with thin ET, did not have endometrial biopsy. In 4 women, biopsy could not be obtained due to stenosed os; 3 of these were followed with repeat scan in 3 months and 1 opted for hysterectomy after inadequate sample was obtained after repeat procedure under GA.

82% of cases of benign polyp had thickened endometrium or polyp on ultrasound.

**Conclusions**

Most common histological diagnosis in women with PMB on HRT was benign polyp, seen in a third of cases and majority had thickened endometrium or polyp on ultrasound. Another third had proliferative endometrium, secondary to HRT effect, perhaps suggesting role of switching or temporarily stopping HRT in these women. Frequent finding was inactive endometrium in keeping with atrophic changes. Incidence of endometrial cancer and precancerous lesion (atypical hyperplasia) was very low consistent with current literature. Further studies are needed for robust evidence based comprehensive assessment and counselling of these women.





**ABST-0407 - P281**

**ePoster and Video Presentations**

**Hysteroscopic diagnosis of endometrial cancer using the grasp technique or tissue removal device. Comparison of two minimally invasive approaches**

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**Background**

To investigate the diagnostic accuracy of hysteroscopic biopsy performed with miniaturized instruments comparing the grasp technique to the tissue removal device one, in an office setting for evaluation of histotype and grading of Atypical Endometrial Hyperplasia (AEH) and Endometrial Cancer (EC).

**Methods**

This was a retrospective study conducted on 38 women affected by AEH and EC and treated at our Department from January 2020 to March 2024. We included in a dedicated database the patients' information from the time of diagnosis until the date of hysterectomy. All the patients underwent office hysteroscopy performed by vaginoscopic approach, followed by a targeted biopsy using the grasp technique or the "visual D&C" as a diagnostic procedure, and received total hysterectomy as final treatment. "Visual D&C" consisted of a type of atraumatic curettage performed using Tissue Removal Device (TRD). All patients that received a treatment outside of our institution were excluded.

**Results**

In all cases the endometrial specimen obtained in office setting with both grasp technique or visual D&C was adequate for an histological evaluation.

Among the 38 cases, 16 biopsies were performed using the grasp technique, the other 16 were performed with tissue removal device. An agreement of 100% (38/38) was obtained for the histotype in both groups.

Among the TRD group, regarding tumour grade, the concordance between preoperative and postoperative findings was lower for the G3, while for G2 and G1 biopsies we obtained an agreement rate of 50% (1/2 cases) and 60% (3/5 cases) respectively. We found the highest concordance (5/8 cases, 62,5%) in case of AEH. Of 3 samples originally graded as AEH, 3/8 (37,5%) were upgraded to G1. In two cases G1 was upgraded to G2, while 1 G2 was downgraded to G1. No cases of G3 were downgraded to G1 and only 1G3 was downgraded to G2.

In the group of patients where grasp technique was used, the concordance between preoperative and postoperative findings was lower for the G1 (1/2 cases, 50%), while for G2 and G3 biopsies we obtained an agreement rate of 75% (3/4 cases) and 80% (4/5 cases) respectively. We found the highest concordance regarding AEH (4/5 cases, 80%). Of 5 samples originally graded as AEH, one was upgraded to G1. In one case G1 was upgraded to G3, while the only G2 was upgraded to G3; regarding G3, 1 was downgraded to G1.

## **Conclusions**

According to our findings, preoperative hysteroscopic-guided “grasp” biopsy and “visual D&C” technique allow an adequate amount of tissue available for examination to be taken, in order to provide a correct histotype diagnosis.

Moreover, our preliminary results demonstrate a high degree of concordance between the preoperative histological diagnosis on hysteroscopic guided biopsy and the postoperative one on hysterectomy specimen in EC in both group.

**Clinical assessment of reproductive outcomes following hysteroscopic metroplasty for dysmorphic uterus: insights from a retrospective multicentre analysis**

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**Background**

To assess long-term reproductive outcomes in patients affected by dysmorphic uterus and infertility treated by hysteroscopic metroplasty using miniaturized instruments.

**Methods**

Conducted as a retrospective multicentre study, the research enrolled women diagnosed with dysmorphic uteri based on the ESHRE/ESGE 2013 Ultrasound Classification (U1a, U1b, U1c), experiencing primary or secondary infertility; only patients undergone hysteroscopic metroplasty between June 2012 and December 2022 at the Hysteroscopy Units of the "University of Naples Federico II" in Naples (Italy) and the "Fondazione Policlinico Gemelli IRCCS" in Rome (Italy) were included. Utilizing miniaturized instruments, procedures were performed either in outpatient settings or operating rooms under anaesthesia. Follow-up assessments one-month post-surgery involved both office hysteroscopy and 3D transvaginal ultrasound. Subsequently, patients were interviewed to evaluate their long-term reproductive outcomes.

**Results**

187 patients were enrolled in this study: 144 (77%) diagnosed with dysmorphic uterus class U1a, 9 (4.8%) with U1b, and 34 (18.2%) with U1c. The mean age was  $37.2 \pm 4.3$ , while the mean BMI was  $23.5 \pm 2.9$ . 71 (38%) patients were treated in outpatient setting, and 116 (62%) in the operating room. All the patients were treated with miniaturized instruments, including 58 (31%) with 5 Fr miniaturized instruments and 129 (69%) with the 15 Fr bipolar miniresectoscope. 183 (97.9 %) procedures were completed in one surgical step, with only 4 (2.1%) cases requiring a second step. No complications were reported, all patients were discharged the same calendar day. Regarding the reproductive outcomes, we included 169 (90.4%) patients who looked for pregnancy after surgery, excluding those who have not sought it. Among them, the pregnancy rate before metroplasty was 42.0 % (95% CI: 34.6-49.4), while after the surgery was 68.6 % (95% CI: 61.6-75.6) with a p-value < 0.0001, according to the McNemar test, indicating a significant difference in pregnancy rates pre- and post-surgery. Moreover, the live birth rate per pregnancy significantly increased ( $p < 0.0001$ ) to 76.7% (95% CI: 68.99-84.41), while the live birth rate per procedure increased to 52.7% (95% CI: 45.17-60.23). A significant decrease in miscarriage rate from 40.2% to 26.0% ( $p \approx 0.004$ ) was noted. Obstetric complications were observed in 18 cases (20.1%), including 4 (4.5%) cases of postpartum haemorrhage, 11 (12.3%) of preterm delivery, 1 (1.1%) of both preterm delivery and postpartum haemorrhage, 1 (1.1%) of abruptio placentae and finally 1 (1.1%) of retained products of conception. In all cases, the newborns survived without adverse outcomes at the time of the interviews. Among

the patients who achieved pregnancy 60 (51.7%) conceived spontaneously. 16 (8.5%) patients still have an ongoing pregnancy today.

### **Conclusions**

Our long-term follow-up findings suggest that performing hysteroscopic metroplasty on dysmorphic uteri could improve the pregnancy and live birth rates, reducing the miscarriage rate and fostering spontaneous conceptions. Further prospective research is required for validation.

**ABST-0413 - VP090**

**ePoster and Video Presentations**

### **Laparoscopic Cervico-Isthmic Cerclage**

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#### **Background**

Cervical incompetence poses a significant risk factor for recurrent late abortions. Despite advancements in cervical cerclage techniques, failures can occur, necessitating alternative interventions. We present a case of a 36-year-old gravida 4 para 0 woman with a history of two cervical cerclage failures and recurrent late abortions, highlighting the efficacy of cervico-isthmic laparoscopic cerclage as a therapeutic approach.

#### **Methods**

A comprehensive evaluation was conducted following recurrent late abortions. Transvaginal ultrasound confirmed cervical incompetence, prompting the decision to perform cervico-isthmic laparoscopic cerclage. Informed consent was obtained from the patient included in the video. The video abstract provides a step-by-step description of the surgical technique employed.

#### **Results**

The procedure resulted in successful cervical reinforcement, leading to subsequent pregnancy. The patient conceived one-year post-cerclage and delivered via caesarean section at 38 weeks gestational age, demonstrating the efficacy and durability of the cervico-isthmic laparoscopic cerclage.

#### **Conclusions**

Cervico-isthmic laparoscopic cerclage presents a promising therapeutic intervention for patients with recurrent late abortions secondary to cervical incompetence. This technic offers a viable alternative in cases of cerclage failure, providing successful pregnancy outcomes and minimizing the risk of preterm birth.

<https://player.vimeo.com/video/945939541?autoplay=1>

**ABST-0418 - VP092**

**ePoster and Video Presentations**

**Bilateral sentinel lymph node mapping with near-infrared fluorescent imaging using indocyanine green for endometrial cancer**

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**Background**

The aim of the video presentation is to showcase bilateral sentinel lymph node mapping with near-infrared fluorescent imaging using indocyanine green (ICG) for endometrial cancer

**Methods**

52-year-old patient with endometrioid type endometrial carcinoma, grade 1 underwent laparoscopic sentinel lymph node (SLN) mapping and hysterectomy bilateral salpingo-oophorectomy. In the sonography uterus had normal size, endometrial thickness was 17 mm and adnexal structures were normal. There was no metastatic disease detected with computed tomography. SLN mapping was performed by using ICG cervical injection.

**Results**

Bilateral SLN was observed and sent to pathology for histologic examination and ultrastaging.

**Conclusions**

Instead of systematic lymphadenectomy, bilateral SLN was successfully detected using ICG.

<https://player.vimeo.com/video/945941606?autoplay=1>

**ABST-0417 - P284**

**ePoster and Video Presentations**

### **Total laparoscopic hysterectomy for a large fibroid uterus**

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#### **Background**

Laparoscopic hysterectomy by default is the preferred approach in modern era. Historically fibroid uterus larger than 12 weeks size was treated by laparotomy. Shift in the trend towards minimal access approach for large size uterus is possible if performed in a systematic manner with enhanced training and modern equipment.

#### **Methods**

This presentation demonstrates stepwise approach for successful achievement of hysterectomy via minimal access approach for a large size fibroid uterus in following steps

1. Patient selection, consenting, procedure related information was provided
2. Preoperative MRI scan was performed within 6 months
3. Uterus were divided into 3 groups according to the large uterus classification system
4. Improved productivity and success rates due to known theatre team with theatre setup
5. Utilising familiar instruments improved efficiency like known instruments, manipulators and energy devices
6. Trocar placement was modified according to the size of the uterus
7. Blood loss reduction strategies were employed to minimise conversion rates to open procedure
8. Procedure was performed after restoring anatomy and ureterolysis, finally
9. Specimen retrieval was done in bag morcellation or vaginal bisection.

#### **Results**

Multidisciplinary approach is advantageous for successful completion of hysterectomy. Success rates are improved if same team is present for every hysterectomy. Lee Huang point for primary port placement for camera provides excellent view for hysterectomy. Argipressin for blood loss prevention is beneficial especially for a large size fibroid uterus with reduced conversion rates to an open procedure.

#### **Conclusions**

Size does not matter if a procedure is well planned and approached. By default, all hysterectomies should be with a minimal access approach with few exception. Training should be started with started with type 1 large fibroid uterus. Mentor should be there to support performing surgeon for type 2-3 large fibroid uterus. Personal and departmental data should be kept and analysed regularly, which in turn will support patients to make informed decision for a hysterectomy. Robotic surgery will provide with an extra advantage of 3rd arm although there is downside of having more ports and no change in practice for tissue morcellation. Surgeon should acquaint to the most suitable method for specimen extraction. A learning curve of maximum 10 cases for a surgeon already performing laparoscopic hysterectomy is sufficient.



**Minimally invasive treatment of abnormal uterine bleeding in a patient with acquired Glanzmann thrombasthenia and immune thrombocytopenia: case report and review of the literature**

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**Background**

Abnormal uterine bleeding (AUB) is a common clinical condition, and it is estimated that 13% of patients with AUB have an underlying inherited coagulopathy. We present an extremely rare case of an AUB in a patient with concomitant acquired Glanzmann thrombasthenia (GT) and immune thrombocytopenia (IT).

**Methods**

We present a case of a patient with AUB and extremely rare underlying coagulopathy and provide a literature review in this field.

**Results**

A 49-year-old patient with a 20-year history of resistant IT and previous deep vein thrombosis (DVT) was admitted to our department because of heavy AUB. Two weeks before admission, the thrombopoietin receptor agonist avantrombopag was discontinued by her haematologist because of adverse side effects (gingival bleeding, bruising). Because of heavy bleeding and thrombocytopenia, the patient received tranexamic acid (TXA), uterotonic, glucocorticoid and human immunoglobulins, after which the haemorrhage discontinued, and she was discharged. After a month, she was readmitted with severe AUB and anaemia, but with normal thrombocyte values. Upon examination, heavy bleeding was present, and transvaginal ultrasound showed thin endometrium with mild adenomyosis, but no other structural cause of AUB. After consultation with haematologist, tests of thrombocyte aggregation were performed. Results showed extremely low thrombocyte aggregation, and she was diagnosed with acquired GT. She received uterotonics, TXA and later progestogen-only contraception to control the bleeding. To obtain long-term control of her bleedings, we decided to perform endometrial thermal ablation (ETA) (Lina Labrata™, Lina Medical) after previous diagnostic hysteroscopy, during which two small benign endometrial polyps were removed. After ETA, the patients remained amenorrhoeic.

**Conclusions**

GT is a rare autosomal recessive disorder manifested by a deficiency of platelet surface glycoproteins GPIIb-IIIa, which allows fibrinogen binding and consequently platelet aggregation. The prevalence of the disease is 1 in 1,000,000. Acquired GT is an even rarer condition with antibodies against GPIIb-IIIa being formed after infection, in autoimmune disease, pregnancy, haematologic malignancy or after

transfusion of thrombocyte plasma. In our patient, GT was thought to be induced by prior Sars-CoV-2 infection. Because of the rarity of the condition, there is no consensus on treatment of AUB associated with GT. Antifibrinolytics, desmopressin and recombinant factor VIIa application, hormonal therapy and red blood cell and platelets transfusion are possible conservative options in our patient, hormonal treatment was limited due to DVT in the past. When hormonal methods all fail, surgical interventions including endometrial ablation (EA), uterine tamponade, uterine arteries embolization or hysterectomy are possible. To our knowledge, only two similar cases have been described in the literature, both utilizing EA. We believe that minimally invasive surgical treatment should be used as a first-line choice in these patients, as it poses less risk for them and can have a tremendous benefit if they respond to treatment.

**ABST-0423 - P288**

**ePoster and Video Presentations**

**Hysteroscopic adhesiolysis: a case report of severe Asherman's syndrome treated hysteroscopically, achieving a natural conception postoperatively in the immediate postoperative period**

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**Background**

Intrauterine adhesions with symptoms like hypomenorrhea or infertility are known under the term Asherman's syndrome. Although the syndrome has been widely investigated, evidence of both prevention of the syndrome and the ideal treatment are missing. We intend to present a method of hysteroscopic adhesiolysis that delivered a very favourable clinical outcome.

**Methods**

A 33-year-old nulliparous patient presented at our Department with severe dysmenorrhea, hypomenorrhea and infertility after being subjected to two interventions of cervical dilatation and endometrial curettage (D n C) due to spontaneous first trimester abortions. During gynaecological examination and 2D transvaginal ultrasound, severe endometrial adhesions were suspected, and diagnostic hysteroscopy was scheduled. The procedure was performed under general anaesthesia in the early proliferative phase of the menstrual cycle. Cervical dilatation proved very difficult due to cervical adhesions, and dilatation with Hegar dilators up to No5 was possible under ultrasound guidance. A 5mm diameter 30° continuous flow rigid Bettocchi hysteroscope was then inserted in the endometrial cavity, which revealed severe adhesions distorting the endometrial cavity. Meticulous adhesiolysis with cold scissors allowed for endometrial restoration. The procedure was completed with endometrial administration of an anti-adhesion agent rich in hyaluronic acid (Hyalubarier).

**Results**

Oral oestrogens for 20 days, followed by oral progesterone for another 10 days were administered postoperatively. The patient was re-examined at a 6-week interval, where we recognised complete resection of adhesions and formation of a normal endometrial cavity. The next scheduled appointment would be to set an assisted reproduction plan, as the patient had already expressed a pregnancy wish. But the patient attended our Department after a natural conception for prenatal care.

**Conclusions**

Asherman's syndrome is a very serious complication of endometrial curettage. The final diagnosis is based on hysteroscopy. Hysteroscopic adhesiolysis performed by an experienced surgeon can prove very beneficial for the reproductive function of patients.

**ABST-0426 - VP094**

**ePoster and Video Presentations**

### **Hysteroscopic management of partial intrauterine adhesions: the importance of postoperative pediatric foley catheter placement**

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#### **Background**

Intrauterine adhesions are formed from scar tissue when the basal layer of the endometrium is disturbed, with the most severe form being Asherman's Syndrome. These adhesions typically arise following procedures such as curettage of the pregnant uterus, but can also occur after operative hysteroscopy, uterine artery embolization, uterine tuberculosis, or caesarean section. Hysteroscopic resection remains the primary treatment modality; however, recurrence rates of severe adhesions can be alarmingly high, ranging from 48% to 62.5%. Despite this, the optimal postoperative management strategy remains a subject of debate. The objective of this presentation is to elucidate the significance of employing an intrauterine paediatric Foley balloon as a preventative measure against the recurrence of intrauterine adhesion.

#### **Methods**

In this case study, we treated a 33-year-old woman with a history of recurrent pregnancy loss (RPL), having had three vaginal deliveries, and a caesarean section followed by numerous spontaneous abortions (SAB), some of which were managed expectantly, and others were managed with dilation and evacuation or curettage. She underwent a work-up in 2023, including a saline-infusion sonohysterogram (SIS), which revealed thin septations indicative of Asherman's syndrome. Following this study, the patient underwent hysteroscopy which confirmed the diagnosis of Asherman's syndrome. The adhesions were managed with a mechanical morcellator, but no postoperative medications or mechanical methods were utilized. Upon referral to our clinic, we confirmed the recurrence of thick intrauterine adhesions through repeated SIS and diagnostic hysteroscopy. Our intervention involved hysteroscopic lysis of adhesions with scissors and immediate placement of an intrauterine pediatric Foley balloon for one week, accompanied by a six-week course of daily oral estradiol 2 mg and oral medroxyprogesterone 10 mg daily for the final 10 days of the oestrogen course.

#### **Results**

Postoperative SIS revealed a normal uterine cavity without any filling defects. This outcome underscores the effectiveness of employing the intrauterine Foley catheter balloon technique in preventing the recurrence of intrauterine adhesions.

#### **Conclusions**

Our findings demonstrate the effectiveness of adjunctive measures to hysteroscopic resection of adhesions. Specifically, we noted that mechanical separation of the opposing surfaces, using a paediatric Foley catheter balloon for one week mitigated the recurrence of postoperative adhesions.

<https://player.vimeo.com/video/945952508?autoplay=1>

**ABST-0429 - VP095**

**ePoster and Video Presentations**

### **Vaginally assisted laparoscopic radical hysterectomy: Closure of cervical tumour by vaginal route**

*Nasuh Utku Doğan<sup>1</sup>, Selen Dogan<sup>1</sup>, Fatma Ceren Guner<sup>1</sup>*

*<sup>1</sup>Akdeniz University, Gynecology, Antalya, Turkey*

#### **Background**

In this video technique of vaginally assisted laparoscopic radical hysterectomy with closure of cervical tumour by vaginal route is presented

#### **Methods**

After LACC trial total laparoscopic radical hysterectomy is abandoned related to concerns about spillage of tumour into the abdominal cavity. Vaginally assisted laparoscopic radical hysterectomy is a safe way to overcome the disadvantages of total laparoscopic route. In this technique uterine manipulator is not used. Vaginal manchette is formed to close the tumour completely and to tailor the vaginal length precisely. In this video the technique of vaginally assisted laparoscopic radical hysterectomy, particularly vaginal route is presented in a case of cervical tumour smaller than 2 cm

#### **Results**

This technique consists of three steps. Laparoscopic lymphadenectomy (SLN mapping if available). Then formation of uterovesical and rectouterine space. Then lymphnodes are sent frozen section and when the result is negative, vaginal part is initiated. In vaginal part with six Koher clamps vaginal manchette is formed. Vaginal mucosa is dissected of the underlying tissue. Starting from 3 o'clock direction, vagina mucosa is sutured, and cervical tumour is closed. Anterior and posterior colpotomy is performed and abdominal cavity is entered. Then this step follows laparoscopic route Uterine artery is ligated from the branching point of hypogastric artery. Okabayashi space is developed, and ureter is dissected through the ureteric tunnel. Lateral parametrium is excised. Ureter is completely dissected from uterine artery pedicle. Anterior parametrium is excised. In this technique, as anterior and posterior colpotomy is performed previously, only latareal parametrium is resected and lateral vaginal wall is resected after the total dissection of ureter up to the bladder.

#### **Conclusions**

Vaginally assisted laparoscopic radical hysterectomy is a safe way to overcome the disadvantages of total laparoscopic route. Long term oncologic outcomes are comparable to open approach. Long learning curve of vaginal approach is the major disadvantage

<https://player.vimeo.com/video/945951419?autoplay=1>

**ABST-0430 - VP096**

**ePoster and Video Presentations**

**Pseudo/false broad Ligament fibroid; how to troubleshoot laparoscopic challenges?**

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**Background**

Broad ligament fibroids, although rare, are the most common type of extrauterine fibroids, constituting less than 1% of all fibroids. True broad ligament fibroids originate within the broad ligament, while false or pseudo broad ligament fibroids maintain a connection with the cervical myometrium where they arise from. They present significant challenges in surgical removal due to anatomical distortion and their proximity to vital structures such as ureter and uterine blood vessels with potential risks of ureteric injury, haemorrhage, and hematoma formation. Additionally, accurate presurgical diagnosis of broad ligament fibroids might not always be possible.

**Methods**

We present a video for a technically challenging laparoscopic myomectomy for a 10cm cervical fibroid, that was expanding into the broad ligament. This video offers valuable insights into overcoming those surgical challenges encountered during the operation.

**Results**

We opened the left broad ligament anteriorly to mitigate the risk of ureteric or vascular injury. Sharp and blunt dissection was employed to shell the fibroid carefully, using an ultrasonic device and laparoscopic dissectors. The video also shows an option of dealing with a bleeding breach in the lower lateral uterine cavity, with non-existing myometrium to be repaired.

**Conclusions**

Broad ligament fibroids, owing to their rarity and complex uncertain anatomical location, could pose challenges in both presurgical accurate diagnosis and surgical management, in particular with laparoscopic operations due to the high risk of serious complications and hence require structured approach, exceptional laparoscopic surgical skills and adept troubleshooting capabilities.

<https://player.vimeo.com/video/945953553?autoplay=1>

**ABST-0437 - VP099**

**ePoster and Video Presentations**

### **Laparoscopic oophoropexy; indications and technique demonstrated for two cases**

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#### **Background**

Ovarian torsion accounts for 2.7% of gynaecological emergencies. Risk factors include benign ovarian masses, ovarian enlargement secondary to ovarian stimulation, polycystic ovaries and pregnancy. Right adnexal torsion is more common, possibly linked to the mobile caecum. With current approaches of laparoscopic detorsion, there is a significant risk of recurrence within two years ranging from 8-30%. Recurrence rates are higher in younger women and those with normal adnexa.

#### **Methods**

In this video, we present 2 cases of ovarian torsion. First patient is a 39-year-old with a history of robotic trachelectomy. Pelvic ultrasound and MRI showed intermittent torsion. Four weeks after semi-elective laparoscopic detorsion, she represented in acute pain and underwent a laparoscopic oophoropexy. Second patient is a 38-year-old with a history of previous salpingo-oophorectomy for adnexal torsion due to a large dermoid cyst. She had right adnexal detorsion, ovarian cystectomy and oophoropexy.

#### **Results**

This video demonstrates one method of performing oophoropexy. This involves plication of the ovarian ligament/ ovary to the round ligament using mattress sutures through the avascular window in the mesosalpinx without causing blockage of the tube.

#### **Conclusions**

In cases of strong suspicion of ovarian torsion with or without presence of ovarian pathology, the diagnosis should be confirmed promptly by laparoscopy with de-torsion to save the ovary. Although ovarian cysts trigger most ovarian torsions, there are cases when anatomical variations possibly cause the torsions. In those cases, oophoropexy is recommended by our team given the higher risks of recurrence. Also, in patients with a history of contralateral adnexal/ovarian torsion with or without loss of the adnexa/ovary, oophoropexy should be performed. Therefore, all gynaecologists ideally should have laparoscopic suturing skills.

<https://player.vimeo.com/video/945954866?autoplay=1>

**ABST-0472 - VP101**

**ePoster and Video Presentations**

### **Resection of Superficial Endometriosis: 3 Laparoscopic Techniques**

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#### **Background**

Endometriosis is estimated to affect 10% of women of reproductive age, and about 1 million women in Canada. Treatment of endometriosis by excision or ablation reduces pain and both national and international guidelines recommend surgical removal of endometriosis and medical treatment where appropriate. Superficial endometriosis is often diagnosed at time of laparoscopy, and comprehensive and safe resection of superficial endometriosis relies on application of precise and proficient surgical technique.

**Statement of Consent:** Patient has explicitly consented for participation in research. Verbal and written consent for recording and presentation were obtained.

#### **Methods**

This video explores three laparoscopic techniques for superficial endometriosis resection—hydro dissection with a suction irrigator, excision with monopolar scissors, and laparoscopic laser excision. This video provides a comprehensive stepwise approach to the three resection techniques, as well as explores the benefits and drawbacks of each. Considerations include lesion characteristics, surgeon proficiency, instrument availability, and cost. These techniques enhance surgical options for superficial endometriosis, promoting a tailored approach to superficial endometriosis resection and optimized patient care.

#### **Results**

We detail the benefits and drawbacks of three different surgical approaches to resect superficial endometriosis. We also demonstrate successful laparoscopic excision of superficial endometriosis in a patient using these techniques.

#### **Conclusions**

In conclusion, these three techniques offer valuable options for resecting superficial endometriosis. The choice of technique may depend on the location and characteristics of the lesion and underlying tissue, surface area of desire tissue resection, availability, and cost of instruments, as well as the surgeon's training, experience, and preference.

<https://player.vimeo.com/video/945967190?autoplay=1>



**Pregnancy outcomes in patients undergoing hysteroscopic intrauterine adhesiolysis**

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**Background**

Multiple reports have indicated adverse pregnancy outcomes after hysteroscopic lysis of adhesions. The objective was to perform a meta-analysis to determine if hysteroscopic adhesiolysis of intrauterine adhesions (IUA), with or without use of adjunctive treatments, results in adverse pregnancy outcomes in subsequent pregnancies.

**Methods**

Using PRISMA guidelines as well as the Cochrane Handbook for Systematic Reviews of Interventions, a systematic search of the literature was performed in the PubMed, Embase, and Cochrane databases. Search terms included IUA, surgery, and clinical outcomes. There was no date limit. Inclusion and Exclusion criteria were designed to include only those patients at risk for IUA. Each included study was subject to risk of bias analysis. Of the 2,214 abstracts screened, 418 were assessed for eligibility, 235 studies were eligible for inclusions, of which 18 reported on the pregnancy outcomes following hysteroscopic adhesiolysis. A systemic review of outcomes reported by observational studies was conducted, as there was an insufficient number of randomised controlled trials inclusive of data on pregnancy outcomes to allow a meta-analysis.

**Results**

Preterm delivery was the common pregnancy complication occurring after adhesiolysis, reported in 17% of pregnancies. Additional complications were Placenta Accreta Spectrum (PAS) disorders (11%) and peripartum haemorrhage (10%). Antepartum haemorrhage and placenta previa were reported in 3% and hysterectomy in 4% of pregnancies.

**Conclusions**

Intrauterine adhesiolysis is associated with high rates of complications at delivery including preterm labour, PAS, peripartum haemorrhage and hysterectomy.

**ABST-0441 - P101**

**ePoster and Video Presentations**

**Ultrasound diagnosis of adenomyosis: the under diagnosed cause of pelvic pain.**

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### **Background**

The gold standard for the diagnosis of adenomyosis is via histological examination of a hysterectomy specimen. Lazzeri et al. (2019) showed that transvaginal sonography can diagnose adenomyosis to an accuracy of 91%. However, in practice a number of patients were under diagnosed on ultrasound examination as per the Morphological Uterus Sonographic Assessment (MUSA) criteria.

The aim of the study is to assess the accuracy of transvaginal sonography in the diagnosis of adenomyosis in women presenting with either pelvic pain, menorrhagia, dyspareunia or infertility in a London University Teaching Hospital.

### **Methods**

The pilot study was performed retrospectively. This included 100 consecutive women who attended for an ultrasound scan, with either pelvic pain, menorrhagia, dyspareunia or infertility, at St George's University Hospital in January 2023. These are the common symptoms associated with adenomyosis.

The ultrasound images and reports stored on the Viewpoint database were reviewed by a clinical fellow who had more than 12 months experience as an ultrasound clinical fellow, using the MUSA criteria. The data was collected and analysed using an Excel spreadsheet.

### **Results**

1. 60% of the patients were identified as having adenomyosis based on the MUSA criteria but only 25% (15 out of 60 patients) were identified as adenomyosis.
2. When subclassified by operator, the consultants made the correct diagnosis in 40% of cases, nurses in 33% of cases, clinic fellows in 31% of cases and sonographers 17% of cases.
3. The most common presenting symptom was pelvic pain (81%) followed by menorrhagia (26%).
4. The correct diagnosis of adenomyosis was more likely to be made on the presence of a globular uterus and myometrial cysts (71% and 71%, respectively).
5. The correct diagnosis of adenomyosis was least likely to be made on the presence of endometrial lines and irregular endometrial-myometrial junctional zone (25% and 26%, respectively).
6. 18% of patients with adenomyosis had co-existing uterine fibroids, 6% had co-existing endometriomas and 14% had coexisting polycystic ovaries morphology.

### **Conclusions**

The study showed a variation in the accuracy of correct diagnosis of adenomyosis using the MUSA criteria from 17% to 40%. This highlights the need for further training on sonographic signs of adenomyosis.

**ABST-0445 - P366**

**ePoster and Video Presentations**

### **Laparoscopic suture sacrohysteropexy for uterine prolapse: one-year outcomes**

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#### **Background**

We report one-year outcomes of our technique for laparoscopic suture sacrohysteropexy, a minimally invasive, meshless surgery for uterine prolapse that combines permanent anchoring sutures on the promontory with uterosacral ligament plication.

#### **Methods**

We present retrospective audit data for our initial cohort of patients who underwent suture sacrohysteropexy at our centre. Baseline data were retrieved from electronic patient records. Postoperative data were collected at least one year after surgery at a face-to-face review. Anatomical outcomes were reported using the Pelvic Organ Prolapse Quantification (POP-Q) system. Symptoms were assessed with validated instruments, including the International Consultation on Incontinence Vaginal Symptoms questionnaire (ICIQ-VS) and the Patient Global Impression of Improvement (PGI-I) questionnaire. Complications were also recorded.

Anatomical success was defined as apical prolapse of stage 1 or less. We also considered a 'composite success' outcome consisting of: anatomical success; absence of vaginal bulge symptoms; no repeated treatment for prolapse (re-operation or pessary).

Wilcoxon signed rank test was used to compare pre-operative with postoperative data.

#### **Results**

Twenty-five procedures were undertaken between July 2019 and April 2023. Twenty-four patients attended for follow up. Median follow up was 15 months (range 12- 35 months). All the procedures included suspension to the sacral promontory with either one or two permanent sutures. Uterosacral ligament plication was done in 83.3 % of the cases. One third of the cases included additional anterior prolapse repair, vaginally or laparoscopically or colposuspension. Complication rate was low.

There was significant improvement for all parameters of ICIQ-VS and POP-Q scoring post-surgery. The ICIQ-VS 53-point scale demonstrated a median reduction of 18 points (range -2 to 35). 79.1% of patients described their prolapse symptoms as 'much better' or 'very much better'. Preoperative median point C was 0 (range -4 to +6) and point Aa was 0 cm (range -2 to +3). Postoperative median point C was -5 (range -8 to -1) and point Aa was -1 cm (range -3 to +2).

Anatomical success at the apex was 95.8%. 'Composite success' was 83.3%. One patient had apical and anterior prolapse, three patients had anterior prolapse; of these, one underwent further prolapse surgery.

#### **Conclusions**

These provisional data suggest that laparoscopic suture sacrohysteropexy might be an effective and safe treatment for uterine prolapse. It could offer women a uterine-conserving, meshless alternative to existing surgical approaches.

**ABST-0449 - P293**

**ePoster and Video Presentations**

### **A safe and effective one-step hysteroscopic resection of type 3 myomas**

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#### **Background**

Recent advancements in hysteroscopic techniques have transformed the management of type 3 submucosal fibroids, offering minimally invasive alternatives to traditional surgical interventions. Therefore, we intent to demonstrate the efficacy, safety, and feasibility of one-step hysteroscopic approach of FIGO Type 3 myomas.

#### **Methods**

A prospective observational study was conducted from May 2020 to April 2024. Patients with symptomatic Type 3 myomas who underwent hysteroscopic myomectomy were included. The diagnosis of Type 3 myoma was made by outpatient hysteroscopy and 2D/3D Ultrasound according to FIGO classification system. All surgical procedures were performed using a bipolar energy source (27 Fr or 15 Fr resectoscope), both in the outpatient or in the operating room. All patients were followed performing outpatient hysteroscopy and ultrasound one month after the surgery. Their symptoms, such as bleeding, infertility, pelvic pain were documented before and after the myomectomy. Surgical outcomes also were reported.

#### **Results**

A total of 14 patients, aged between 39 and 47 years, were included. Three patients lost follow-up. A complete removal of the myoma was obtained in all the patients, without intraoperative complications. The average diameter of the myomas was  $21.3 \pm 9$  mm.

At one month follow-up, the hysteroscopic myomectomies proved to be successfully performed in one surgical step. Also, no intrauterine adhesions were observed at outpatient hysteroscopy and ultrasound.

10 patients had symptoms including menorrhagia and dysmenorrhagia before the surgery and 90% referred improvements after the myomectomy.

#### **Conclusions**

Hysteroscopic resection represents a feasible, safe, and effective minimally invasive approach to treat FIGO type 3 myomas, when performed by expert surgeons. Our data also demonstrated that bleeding outcomes are enhanced by hysteroscopic myomectomy.

Larger studies are needed to standardize that Type 3 myomas should be hysteroscopically resected whenever possible.

**ABST-0450 - VP103**

**ePoster and Video Presentations**

### **Retroperitoneal Angiolipoleimyoma Laparoscopic approach**

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#### **Background**

In this video laparoscopic resection of retroperitoneal angiolipoleimyoma is presented

#### **Methods**

Video presentation

#### **Results**

65-year-old woman presented to our clinic with lower quadrant pain. In pelvic MRI retroperitoneal 11 cm measuring mass (lipoleimyoma?) was revealed. Laparoscopic exploration was decided. In laparoscopy benign looking mass located in paravesical space was revealed. Complete ureteral dissection was carried out. Hysterectomy along with BSO was performed. Pelvic mass was attached to uterus and was not related to ovaries. The mass was dissected intact and after hysterectomy bso, the pelvic mass and hysterectomy specimen was put into endobag and taken out in endobag vaginally. As the patient had grade II uterine prolapsus, sacrouterine ligament plication was also carried out. The patient was discharged on post-operative second day and pathology report revealed angiolipoleimyoma with dystrophic calcification.

#### **Conclusions**

Pelvic masses located retroperitoneally deep in pelvis can be resected by laparoscopic approach. These masses should be resected intact without dividing into pieces and should be taken out in endobag.

<https://player.vimeo.com/video/945958698?autoplay=1>

**ABST-0451 - P294**

**ePoster and Video Presentations**

**Let us not normalize pain. Patient profile under 25 with endometriosis. 7-year experience in an experienced referral centre in Chile**

*Paula Espinoza<sup>1</sup>, Christian Rivera<sup>1</sup>, Cristian Pomés<sup>1</sup>, Milena Zamboni<sup>1</sup>, Claudia Celle<sup>1</sup>*

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## **Background**

Dysmenorrhea is the most common menstrual symptom in adolescents. Its prevalence varies between 50% to 90%. The most common cause of secondary dysmenorrhea is endometriosis, which is observed in two thirds of patients presenting with chronic pelvic pain. There is a delay in diagnosis of 4 to 11 years, resulting in significant consequences on quality of life and future fertility. Clinical suspicion and early diagnosis are essential for early initiation of treatment. The objective of this study is to describe the profile and management of adolescents suspected to suffer from endometriosis at the Clinical Hospital of Pontificia Universidad Católica de Chile.

## **Methods**

Retrospective study of patients under 25 years old who underwent surgery between 2015 and 2023 at the Gynaecology unit of the Clinical Hospital of Pontificia Universidad Católica de Chile, due to suspicion or intraoperative finding of endometriosis. Patient sociodemographic, clinical, imaging and operative data were analysed. Finally, a literature review was conducted using PubMed, Cochrane, and Epistemonikos databases.

## **Results**

40 patients operated on suspicion or intraoperative finding of endometriosis were identified. The average age at diagnosis was 22, with an average age at symptom onset of 20 (range: 13-24). 50% (n=20) had to consult other specialists prior to diagnosis. The main reason for consultation was dysmenorrhea (45%, n=18). 100% (n=40) of patients were nulligravida. Transvaginal ultrasound was requested for 60% (n=24), and 67.5% (n=27) underwent magnetic resonance imaging. 52.2% (n=21) received medical treatment prior to surgery: combined oral contraceptives (COC) 76.2% (n=16), non-steroidal anti-inflammatory drugs (NSAIDs) 23.8% (n=5), and 14.29% (n=3) progestogens. Endometriosis was suspected prior to surgery in 72.5% (n=29). Among intraoperative findings, the most common was peritoneal endometriosis (75%, n=30). Deep endometriosis was found in 40% (n=16), and ovarian endometriosis in 45% (n=18). Deferred biopsy reported ovarian endometriosis in 40% (n=16), deep endometriosis in 36.6% (n=14), and peritoneal endometriosis in 26.8% (n=11). Postoperative medical treatment was indicated in 87.8% (n=36): combined COC with rest in 38.8% (n=14), progestogen in 33.3% (n=12), continuous combined COC in 22.2% (n=8), and Lupron in 2.7% (n=1).

## **Conclusions**

Endometriosis in adolescents poses a challenging diagnosis. Symptoms may differ from those typically seen in adults. While laparoscopy was considered the gold standard some years ago, nowadays clinical presentation and/or suggestive imaging are often sufficient to initiate treatment. Our management approach aligns with international recommendations, focusing on NSAIDs, hormonal therapies, and non-pharmacological measures. It is still necessary to raise awareness about this condition and consider it when facing a patient with dysmenorrhea, in order to optimize and

favour a prompt diagnosis, offer adequate and timely treatment and therefore improve our patient's quality of life



**ABST-0452 - VP104**

**ePoster and Video Presentations**

**Is there a way to reduce access-related injuries in laparoscopy?**

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**Background**

The rate of serious complications associated specifically with a laparoscopic approach is low overall. Access-related vascular and gastrointestinal injuries are the leading causes of fatalities following laparoscopic surgery. Up to one-half of complications occur at the time of abdominal access for camera or port placement. To decrease these complications, new devices are being developed.

**Methods**

We performed a laparoscopic hysterectomy using one of these devices to aid in the safe insertion of a Veress needle to introduce pneumoperitoneum called LevaLap.

**Results**

The device consists of a clear hemisphere-shaped housing containing a port for connection to vacuum system and a septum for introduction of a Veress needle. The device raises abdominal wall above critical organs and vessels using negative pressure, creating a safety space for laparoscopic access.

**Conclusions**

A successful and rapid access was achieved, without any complications, showing that these devices can be a safety choice to decrease laparoscopic fatalities.

<https://player.vimeo.com/video/945961618?autoplay=1>

**ABST-0455 - P295**

**ePoster and Video Presentations**

### **Intra-ureteric injection of ICG: A holy grail or a harbinger of trouble?**

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#### **Background**

Over fifty percent of iatrogenic ureteric injuries take place in gynaecological surgery, the majority of which are recognised post-operatively. Although a rare complication, ureteric injury can lead to significant complications and morbidity to patient including fistulae and renal failure.

The benefits of using ICG include easier identification, brief duration of ureteric catheterisation and highlighting even small defects through extravasation.

Patient at risk of ureteric injury include morbid obesity, distorted anatomy: endometriosis, fibroids, cervical or ovarian cancer, previous pelvic surgery. Other human factors include surgeon experience and skill.

The aim of the study was to assess whether using ICG dye for ureter identification intraoperatively was associated with reduced length of stay (LOS) and fewer complications than using an intra-ureteric catheter (IUC) alone or by trans-peritoneal (direct) visualisation (DV) in gynaecological surgery.

#### **Methods**

A standard literature search was conducted using the research question “*How does using intra-operative indocyanine green (ICG) dye compare with current practices for gynaecological surgery for intraoperative ureter visualisation?*” and identified thirty relevant sources.

Clinical data was collected from January-December 2023; procedures converted to laparotomy at the start of the surgery were removed.

The primary outcome investigated was duration of admission following laparoscopic gynaecological operation comparing ureter identification using intra-ureteric catheterisation (IUC) to using ICG dye. Secondary outcomes included any documented ureteric injury or decline in renal function post-operatively.

#### **Results**

32 surgical procedures were included, mainly total laparoscopic hysterectomy (TLH) and bilateral salpingo-oophorectomy (BSO).

For ureteric identification, ICG was used for 10 procedures, IUC for 12, and DV for 10. Average LOS was 1.2, 3.6, 1.7 respectively. All direct cystoscopy and ICG cases had no acute deterioration in renal function. 1 ureteric injury was noted during a TLH-bilateral salpingectomy using DV. Only IUC cases documented post-op haematuria (in 42%).

#### **Conclusions**

ICG is an effective tool for TLH-BSO for identifying ureters, with the shortest LOS compared to IUC and DV, and no associated renal impairment or ureteric injury.

**Laparoscopic treatment of inflammatory myofibroblastic tumour of the urinary bladder.**

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**Background**

Inflammatory myofibroblastic tumour (IMT) is a rare tumour of unknown aetiology, locally aggressive that arises in soft tissues with a proliferation of fused cells associated with an infiltrate of mononuclear inflammatory cells. We present the case of a 21-year-old asymptomatic woman with an ultrasound finding of a 51 x 40 mm unilocular, ground-glass-like neof ormation in the left supravescical parauterine site with a regular-walled, non-vascularised appearance. The aforementioned formation was located in the paravescical site, near the left urethral meatus. Complete enucleation of the mass was performed with consequent partial cystectomy. Histological and immunohistochemical analysis revealed it to be IMT. Given the uncertain malignant potential and the absence of recurrences found, a conservative surgical approach is recommended, if possible, subjecting the patient to meticulous clinical and laboratory follow-up

**Methods**

We set up this study following the criteria of the scoping review, with the aim of mapping the scientific literature on a given topic by focusing not on the best evidence but on the broadest description of research activities that have been carried out in a given field. The literature research was conducted from 2000 to 2023 using PubMed/Medline as the main search engine for English-language abstracts. The research included the following medical topic titles (MeSH) or keywords such as: "inflammatory myofibroblastic tumour of the urogenital tract" and "case report" studies in English

**Results**

The research conducted on PubMed, which included the keyword "inflammatory myofibroblastic tumour of the urogenital tract", led, taking into account the eligibility criteria, to the selection of 22 articles for a total of 23 clinical cases. 65.2% of inflammatory myofibroblastic tumour involved the bladder, 21.7% the uterus, and 13.04% the kidney. As for bladder localization, 33.3% were treated with TURBT, 66.6% underwent partial cystectomy. Patients with renal IMT underwent radical nephrectomy (66,6%) and resection of the tumour mass (33,3%). IMTs of interest to the uterus were treated in 60% of cases with total/subtotal hysterectomy and in 40% with hysteroscopic resection. No relapses have been diagnosed. A positive for ALK was found in 60.8% of cases and for SMA (smooth muscle actin) in 47.8%

**Conclusions**

Inflammatory myofibroblastic tumour of the genitourinary tract is, to date, considered a neoplasm of uncertain aetiology and pathogenesis with uncertain malignant potential for which routine surveillance and careful clinical follow-up is recommended. Aggressive therapy such as radical cystectomy or radio/chemotherapy is not recommended given the indolent and often benign clinical course. In the future, the link between genetic abnormalities, tumour onset, clinical course and

therapeutic response will have to be addressed in order to understand the diagnostic and prognostic implications.

**ABST-0465 - P297**

**ePoster and Video Presentations**

**A case of mistaken identity.**

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### **Background**

Ectopic pregnancy is the cause of significant mortality and morbidity in the UK. This has led to established national standards for management and specialist clinics for diagnosis. Despite improvements in knowledge and imaging, there is always potential in medicine to be surprised.

### **Methods**

We present a case of a 19-year-old woman presenting to the emergency gynaecology unit in our district general hospital.

She had a history of abdominal pain and was approximately five weeks pregnant.

Of note she had previously undergone a Left salpingectomy.

Observations were stable and blood test suggested a normal haemoglobin.

Serum BHCG was elevated to 2907 IU/L.

An ultrasound was performed that suggested blood in the pelvic cavity, with a heterogenous mass between the ovaries 55x44mm. The right tube was noted to be mildly dilated with a possible hydrosalpinx. The uterus was normal with no gestational sac visualised.

### **Results**

Due to the symptoms and raised HCG and blood in the pelvis the decision was made for an emergency diagnostic laparoscopy.

The patient was consented for a possible salpingotomy as well as a salpingectomy which would have had dramatic impact on her fertility.

At laparoscopy blood was seen in the pelvis and removed.

The Right fallopian tube was macroscopically normal.

Both ovaries were normal.

There was notable bleeding arising from what appeared to be the stump of the previously removed Left fallopian tube.

A small amount of decidual appearing tissue was removed and histology confirmed pregnancy tissue.

The left stump was excised with the harmonic scalpel and area cauterised with good effect.

Overall blood loss was 200ml.

### **Conclusions**

We conclude that this rare case of stump ectopic was not an expected finding however, it is a reminder that once in a while we should expect the unexpected.

**ABST-0477 - VP106**

**ePoster and Video Presentations**

### **Hysteroscopic isthmocele correction using a mini resectoscope**

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#### **Background**

This study is a case report that is illustrated with a video.

#### **Methods**

The patient was initially positioned in lithotomy with legs 80 degrees abducted in Allen stirrups for hysteroscopy. Next, she was put in a semi-gynaecological position for laparoscopy. A 10 mm trocar was inserted into the umbilical scar and three other 5 mm scars were inserted in both flanks and hypogastrium.

The study participant is a 44-year-old female with a past surgical history of umbilical hernia correction and two caesarean sections. The patient reported chronic pelvic pain, deep dyspareunia, and abnormal uterine bleeding. MRI revealed a 0.5 cm isthmocele in the anterior isthmic region and thickening of the uterosacral ligament. To correct the isthmocele, the patient underwent hysteroscopy with a mini resectoscope, which provided the advantage of using high-frequency energy to achieve uterine cavity planning. Subsequently, a laparoscopic approach was performed, guided by the light of the resectoscope, resulting in the excision of fragile myometrial tissue for better coaptation of the edges and complete resection of the isthmocele.

#### **Results**

The patient had a satisfactory postoperative outcome, with no complications reported. There was also an improvement in pelvic pain and abnormal uterine bleeding symptoms.

#### **Conclusions**

Isthmocele can be an underestimated cause of abnormal uterine bleeding, and there are currently no established guidelines for its treatment. The use of a mini resectoscope is a safe and less invasive alternative to conventional surgical methods. Additionally, the use of hysteroscope light for myometrial resection during laparoscopy can be a useful tool for identifying the area of greatest wall fragility, assisting in the treatment of isthmocele.

<https://player.vimeo.com/video/945971788?autoplay=1>

**ABST-0480 - VP107**

**ePoster and Video Presentations**

**"Rail Biopsy": a novel and useful technique for hysteroscopic endometrial target biopsy**

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**Background**

Endometrial biopsy (EB) is one of the most common gynaecologic procedures. The Grasp Biopsy seems to be the most appropriate EB technique for reproductive aged women. Recently, the Visual D&C performed with hysteroscopic tissue removal devices has shown to be a valid alternative. However, it is difficult to obtain an adequate specimen in peri/post-menopausal women with hypo/atrophic endometrium. Our aim is to show a novel hysteroscopic EB technique called "Rail Biopsy".

**Methods**

We performed the "Rail Biopsy" technique with a 5.0 mm Continuous Flow Operative Hysteroscope with a 30° Lens and a 5 Fr operative channel.

**Results**

We identify the endometrial target area (ETA) and we create a first track cutting through the endometrium in a caudo-cranial direction using cold scissors. We repeat the procedure creating a second parallel track, thus completing our "rail" and isolating a wide ETA. Then, in caudo-cranial direction, we cut through the stromal layer beneath the ETA. With a 5 Fr cold grasping forceps, we clench the cranial edge of the ETA, and we remove it from the uterine cavity. A high-quality specimen, even in case of hypo/atrophic endometrium or focal sessile lesions, can be obtained with this technique. The crucial aspect of the "Rail Biopsy" indeed is cutting through the stromal tissue, while the endometrium is minimally touched, avoiding thermal damage deriving from electrosurgery. This technique can be performed on any wall of the uterus, under vision, in an office-setting without cervical dilatation or general/loco-regional anaesthesia, in absence of cervical stenosis or other conditions requiring anaesthesia using widespread and cheap instruments. Further studies comparing "Rail Biopsy" to other EB techniques are needed.

**Conclusions**

We showed a novel approach for hysteroscopic EB that may be particularly useful in patients with hypo/atrophic endometrium, easy to learn and with low costs.

<https://player.vimeo.com/video/945974507?autoplay=1>



**ABST-0485 - P103**

**ePoster and Video Presentations**

## **Female infertility challenges for Kazakhstan**

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### **Background**

Abstract title: Female infertility challenges for Kazakhstan

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In the structure of gynaecological diseases, one of the important issues of the healthcare system is the issue of female infertility. Recent studies show an increase in the prevalence of female infertility, where primary was 45.8% and secondary 51.5% in world. The objective of our study is to analyse treated cases associated with female infertility in hospitals in Almaty.

Keywords: gynaecological diseases, female infertility, Primary healthcare, Kazakhstan

### **Methods**

Methods: For analysis we used data from the Almaty branch of the National Scientific Center for Health Development. The hospitalized cases associated with female infertility was analysed for time period 2013 to 2023. In Almaty the number of women over 18 years old increase from 652852 to 858314 over the period given. We used linear regression to predict variables for next five years and identify how hospitalized cases in two age groups: 18-39 years old and 40-64 years old can be changed.

### **Results**

Results: Over a ten-year period, there has been an increase in hospitalized cases associated with female infertility from all treated cases with gynaecological disease, which increased from 14.8% (738 cases in 2013) to 38.2% (3806 cases in 2023). The forecast for the age group 18-39 years shows the worst expected scenario, where an increase 3295 in 2023 to 4525 in 2028 whereas in second group from 511 in 2023 to 868 in 2028. Given the growth of this disease, policymakers are faced with a number of tasks: 1) providing the latest endoscopic treatment methods in all regions; 2) qualification of gynaecologists in methods of treating infertility, to reduce the risks and complications of surgical interventions.

### **Conclusions**

Conclusions: In young age (18-39) group women the female infertility is crucial issue which need take attention in prioritization of health services. To provide policy of universal health coverage the primary health care services need to strengthen activities related on prevention of the female infertility by ensuring public awareness on this issue as well as improve and implementation of new technologies. The next step for our team is an in-depth study of the causes of female infertility, and the preparation of activities to strengthen gynaecological work in the regions of Kazakhstan.

**ABST-0492 - P301**

**ePoster and Video Presentations**

### **Tubal anastomosis after previous sterilization: is surgery a first option?**

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#### **Background**

Up to 20% of patients express regret after tubal sterilization, the options for these patients are either surgical tubal anastomosis or in vitro fertilization (IVF). The purpose of this study was to evaluate the fertility outcomes of robotic tubal anastomosis.

#### **Methods**

This monocentric retrospective study regards 42 patients operated for a robotically assisted tubal anastomosis from 2013 to 2024.

The studied parameters were age of tubal ligation, tubal ligation technique, age of tubal anastomosis, positive pregnancy test, birth rate, miscarriage rate, ectopic pregnancy rate, post-operative time to conception and termination of pregnancy.

We collected information about the patients such as gestity, parity, medical history, and their body mass index (BMI).

#### **Results**

At the time of tubal ligation, the mean patients' age was 29 years old (13 - 39) and for tubal anastomosis the mean age was 34 years old (29 - 44). All ages combined, positive  $\beta$ -HCG blood sample rate was 71,4%, the pregnancy rate was 54,7% and birth rate was 23,8%.

The age-adjusted pregnancy and delivery rate were as follows:

30 - 35 yo (n=13) 30,9% and (n=8) 19%

36 - 39 yo (n=5) 11,9% and (n=2) 4,7%

40 - 45 yo (n=1) 2,3% and (n=0) 0%.

9,5% of positive  $\beta$ -HCG were achieved in less than one year after reanastomosis, 26,1% after one year, 4,7% after 2 years and only 2,3% after five years.

The ectopic pregnancy rate was rather low with two reported cases which is only 4,8%. The miscarriage rate however was 19 %. Additionally, one patient opted for abortion due to personal reasons.

#### **Conclusions**

In our series the pregnancy and birth rate after robotically assisted tubal reanastomosis is estimated at 54,7% and 23,8% respectively. Robotically assisted tubal anastomosis should be considered in women with no other fertility problems since it could reinstate anterior natural fertility related to

age, avoiding the adverse outcomes and inconveniences of IVF treatment. We demonstrated that the optimal time frame for pregnancy following tubal reanastomosis spans a period of up to two years.

**ABST-0499 - P180**

**ePoster and Video Presentations**

**Accessory cavitating uterine mass: a clinical dilemma among women with intractable chronic pelvic pain and dysmenorrhea across all ages**

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**Background**

Accessory cavitating uterine mass (ACUM) is a rare cause of chronic pelvic pain (CPP) and dysmenorrhea, which is being increasingly recognized with available imaging modalities. We conducted this study to evaluate the clinical and diagnostic profile and management outcomes of ACUM.

**Methods**

A prospective study of women diagnosed with ACUM between 2020 and 2023 at a tertiary referral hospital was done. Clinical presentation, imaging modality, preoperative diagnosis, intraoperative picture, and outcome of medical and surgical management were noted. Follow-up of 1-4 years was done for symptoms and recurrence.

**Results**

Eleven women were diagnosed with ACUM over the given time. The median age was 28.0 years (20-46 years). All were in the reproductive age group except one postmenopausal female, who presented with CPP for 4 years. The median duration of symptoms was 4 years (2 months- 6 years). Severe progressive dysmenorrhea was present in all except one. The majority, 5/11(45%), presented with a combination of dysmenorrhea and CPP. Only dysmenorrhea had complained by 3/11(27%). Two cases had coexisting heavy menstrual bleeding (HMB) and infertility. Pain was localized to the side of ACUM in all patients. On initial USG, 4/11(36%) were misdiagnosed as rudimentary horn, 4/11(36%) as degenerated fibroid, 2/11(18%) as endometrioma, 1/11(9%) as dermoid cyst. Further imaging by 3D USG and MRI confirmed ACUM in 6. A preoperative diagnosis was therefore made in 6 patients, and the rest were diagnosed intraoperatively. The ACUM was present on the right side in 63.6% (7/11) cases and left side in the rest. Medical management with OCPs or dienogest was initiated in eight cases, which was successful in 1/8(12.5%); who have been on continuous OCPs for the last 3 years and is symptom-free. All except one underwent surgical management. The one who did not undergo surgery has been on continuous OCPs for the last 3 years and is completely symptom-free. Of ten women who underwent surgery; 9/10 underwent laparoscopic ACUM excision and one had laparoscopic aspiration of ACUM. In one case, where only aspiration of ACUM was done, was a postmenopausal lady with chronic pelvic pain. Her preoperative diagnosis was a dermoid cyst, ACUM was diagnosed intraoperatively, and only aspiration was done as prior consent for uterine surgery was not taken. All patients including the one who had aspiration of ACUM, have been symptom-free postoperatively with no recurrence on follow-up.

**Conclusions**

ACUM is often misdiagnosed at initial imaging with 2D ultrasound, which delays the definitive management plan. It has a preponderance of occurrence on the right side. A high index of suspicion in women is needed in women with intractable dysmenorrhea, especially localised to one side; and

should prompt appropriate imaging for early diagnosis. Surgical management is the mainstay and relieves symptoms without recurrence.

**ABST-0497 - P181**

**ePoster and Video Presentations**

### **Minimizing risk of retroperitoneal vascular injury at laparoscopic abdominal entry**

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#### **Background**

Major vascular injury during initial laparoscopic entry carries significant risk of morbidity or death. One method of laparoscopic entry is not preferred over another. Abdominal wall elevation devices exist but are not utilized regularly. The objective of this observational study is to demonstrate the safe use of abdominal wall elevation device (LevaLap 1.0) with closed technique using Veress needle or direct entry with 3mm port.

#### **Methods**

Female patients undergoing laparoscopic gynaecologic procedure between July 2023 to May 2024 underwent pre-operative screening ultrasounds to predict presence of obliterating adhesions. Abdominal wall thickness and distances from skin to major abdominal vessels were obtained. Abdominal wall elevation device was used during abdominal entry. Once entry confirmed major vascular, or visceral injury was assessed. Other events such as number of entry attempts, failed entry, and presence of adverse events during entry were noted. Descriptive statistics were used to characterize the patient population and incidence of abdominal entry injury or events.

#### **Results**

Levalap was used in 15 patients with Veress needle and 25 patients with 3mm direct trocar. Abdominal entry was achieved via the umbilicus in 36 patients and left upper quadrant in four patients. There was no major vascular, visceral injury or failed entry events. Entry was achieved on first attempt in 35 patients. Of second attempt entries, one was with 3mm trocar and four with Veress needle.

#### **Conclusions**

Use of a device to elevate the abdominal wall in a standardized fashion is both safe and effective for laparoscopic abdominal entry. It can be used with its designed entry method of Veress needle and direct entry using 3mm port.

**Cystic Adenomyoma in the Posterior Uterus: A Case Report of Laparoscopic Aspiration and Hysterectomy**

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**Background**

Uterine adenomyosis is a benign proliferative disease characterized by the invasion of the myometrium by endometrial tissue, glands, and stroma. While diffuse adenomyosis is a common finding, cystic adenomyosis within the myometrium is rare. This case report presents a 47-year-old woman with a cystic adenomyoma located in the posterior uterus, successfully treated with laparoscopic aspiration and hysterectomy.

**Methods**

**Case Presentation:**

A 47-year-old woman, with a history of four vaginal deliveries and one caesarean section, presented with a six-month history of pelvic pain, dysmenorrhea, and vaginal bleeding. She was premenopausal and receiving oestrogen-progesterone replacement therapy (ERT). Physical examination revealed a 10 cm, firm, mobile mass in the posterior uterus. Transvaginal ultrasonography (TVUS) confirmed the presence of a 10 cm, irregularly contoured, hypoechoic mass with degenerative areas.

The diagnosis of cystic adenomyoma was established. The patient was offered laparoscopic aspiration and hysterectomy. Laparoscopic surgery was performed under general anaesthesia. The fallopian tubes and ovaries appeared normal for her age. A 10 cm degenerative mass was identified in the posterior uterus. The mass had a macroscopic appearance similar to ovarian endometrioma. The mass was aspirated laparoscopically, followed by transvaginal hysterectomy. The removed tissues were sent for pathological examination.

The patient's postoperative recovery was uneventful. She was discharged three days after surgery. One month after surgery, the patient was doing well.

**Results**

**Discussion:**

Cystic adenomyomas have been reported in the literature under various names, including cystic degenerated myoma and myometrial adenomyosis. They are thought to represent haemorrhagic cysts formed in ectopic endometrial glands during menstruation. Juvenile cystic adenomyosis usually presents around five years after menarche or around the age of 18, while adult cystic adenomyosis typically occurs in patients over 30. Symptoms are nonspecific and include dysmenorrhea, chronic pelvic pain, and abnormal uterine bleeding before or after menstruation. Dysmenorrhea is often resistant to painkillers and oral contraceptives.

Laparoscopic aspiration is a minimally invasive method used to treat cystic adenomyomas. The cystic tissue is aspirated laparoscopically. Hysterectomy, the complete removal of the uterus, is another treatment option for adenomyosis, large myomas, degenerated myomas, and recurrent myomas.

In this case, the patient presented with a six-month history of pelvic pain and vaginal bleeding. TVUS revealed a 10 cm mass in the posterior uterus with degenerative areas. The patient underwent laparoscopic aspiration and hysterectomy, resulting in a successful outcome.

### **Conclusions**

Minimally invasive techniques, such as laparoscopic aspiration and hysterectomy, can be used to treat cystic adenomyomas located in the posterior uterus. These methods shorten the patient's recovery time and reduce the risk of complications.



## Cervical Preparation for Hysteroscopy Using Dilapan-S Three Hours before Surgery: A Randomized Controlled Trial

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### Background

background: hysteroscopy is a pragmatic diagnostic and operative method for the assessment of uterine pathologies. Cervical preparation is an important step for hysteroscopy, and it is recommended in order to reduce complications. The efficacy of Dilapan-S and Misoprostol as two means of cervical preparation were evaluated and compared in this study.

### Methods

methods: this randomized clinical trial was conducted on women referred to Rasoul-e-Akram hospital outpatient department. a total of 120 menopausal and non-menopausal patients with no history of vaginal delivery were included in this study. 400 micrograms of misoprostol and Dilapan-S were used for cervical ripening three hours before hysteroscopy. cervical dilation was measured by the diameter of the largest dilator inserted without resistance prior to hysteroscopy. The time needed to achieve 9 mm dilatation was recorded. complications of the procedure were evaluated and compared in both groups.

### Results

results: the size of the largest Hegar dilator without resistance in Dilapan-S and misoprostol groups were  $7.6 \pm 0.86$  mm and  $6.05 \pm 1.04$  mm, respectively ( $p < 0.0001$ ). Preoperative complications including headache and nausea were significantly higher in misoprostol group ( $p = 0.013$ ). Applying Dilapan-S for cervical ripening significantly reduced the time of cervical dilation ( $p < 0.0001$ ).

### Conclusions

conclusions: short-term application of Dilapan-S before surgery, due to proper preparation of the cervix, increases the chance of successful hysteroscopy, without causing intolerance or major complications in patients or necessitating a longer preoperative hospital.

**ABST-0506 - P306**

**ePoster and Video Presentations**

### **laparoscopic modified radical hysterectomy in severe cases of endometriosis**

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#### **Background**

To investigate the application and results of laparoscopic modified radical hysterectomy in patients with severe endometriosis and obliteration of Douglas pouch.

#### **Methods**

Laparoscopic modified radical hysterectomy cases performed in our centre between 2016 and 2023 were examined. All cases were performed by the same surgeon. The data of the patients were obtained retrospectively.

#### **Results**

Twenty-one patients with severe endometriosis who underwent laparoscopic modified radical hysterectomy were included in the study. 23.8% of these patients underwent rectal shaving (n = 5) and 14.2% underwent rectal resection (n = 3). In one case, a protective ileostomy was performed. Ureterolysis was performed in 90.4% of the patients (n = 19). The average hospital stay was 4.6 days. A patient 4.7% practices intermittent catheterization with difficulty urinating. A major complication was observed in 1 patient and a minor complication was observed in 4 patients. Complete recovery was observed in 90.4% (19 patients) of the patients who were followed for an average of 6 months.

#### **Conclusions**

Laparoscopic modified radical hysterectomy is a promising surgical procedure with low complication rates and a cure rate of more than 90% in severe endometriosis.

### **Hysteroscopy as an Alternative to Curettage in Persistent Pregnancy of Unknown Location**

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#### **Background**

In this study, we suggest a novel idea of hysteroscopic management rather than uterine evacuation with curettage in patients with persistent PUL. The use of endoscopic treatment rather than blind curettage has the advantages of an immediate and accurate diagnosis, possible decreased endometrial injury and the possibility to avoid general anaesthesia.

#### **Methods**

In this case series, we included six patients with a diagnosis of persistent pregnancy of unknown location who were hospitalized, followed up and treated in the Department of Gynaecology in a tertiary medical centre in Tel Aviv. All six patients underwent hysteroscopy, four without anaesthesia and two under general anaesthesia. Procedures were performed using the vaginoscopic approach with a rigid narrow-calibre hysteroscope. The objective of the procedure was to locate the pregnancy, treat it, or take a tissue sample in cases of pregnancy of unknown location (PUL) where imaging studies were not conclusive. The main outcome measures were the confirmation of the location of the pregnancy, as well as pregnancy resolution in terms of  $\beta$ -hCG levels.

#### **Results**

In five of the patients included in the study, a gestational mass was detected with hysteroscopy and promptly removed. Pathology reports confirmed the diagnosis of intrauterine pregnancy, and complete  $\beta$ -hCG resolution occurred within 24 days. One patient was diagnosed with Extra-Uterine pregnancy (EUP) due to the absence of intrauterine gestational mass in hysteroscopy and a plateauing level of B-hCG a day after the procedure and was therefore treated with Methotrexate.

#### **Conclusions**

This is a novel demonstration of the utility of hysteroscopy for the management of persistent pregnancy of unknown location. Hysteroscopy is a quick and safe diagnostic tool, which holds the additional benefit of complete treatment in cases where the PUL is found to be a non-evolving intrauterine pregnancy.

**Persistent labial adhesions in reproductive-age female masquerading as urethrovaginal fistula**

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**Background**

Labial adhesion refers to partial or complete joining of labial minora in midline. It is seen mostly in premenarchal and postmenopausal females. It is rare in reproductive-age females and can develop due to ulcerative genital conditions. Urethrovaginal fistula (UVF) is a rare type of genital fistula that is iatrogenic in most cases. Congenital or spontaneous development of UVF is extremely rare. Both of these conditions might present with urinary complaints. The former one is sinister pathology whereas later is relatively simple condition to treat.

**Methods**

We are discussing clinical features and workup of a reproductive-age patient presenting with diagnosis of suspected UVF that developed without any inciting event. On workup, it was found to be spontaneously developed labial adhesion which was masquerading as UVF.

**Results**

A nulliparous reproductive-age girl presented with complaints of passage of menstrual blood and urine from same orifice since menarche. The patient attained menarche at 16 years of age and did not have any menstrual complaints. There was no significant medical history. She had a history of some corrective surgery done 4 months back for the same complaints and intraoperatively communication between distal urethra and vagina was noted. MRI revealed communication between urethra and vagina at distal end. There was no defect in urethra above this. The patient's symptoms were not relieved and first operating surgeon suspected UVF and referred her to our centre. She had normal secondary sexual characteristics. Local examination revealed two openings, one of around 2 mm just below clitoris and one around 5 mm in lower part near posterior fourchette. Based on history and examination findings, differentials of labial adhesion and UVF were kept. We planned her for vaginoscopy along with corrective surgery depending on findings, under local anaesthesia. Vaginoscopy with 1.9 mm hysteroscope was done which did not reveal any defect in anterior vaginal wall. These findings led us to the diagnosis of labial adhesion, with the urine and menstrual bleeding draining from same opening. Labial adhesion was cut with the number 11 blade over feeding tube; which was passed from upper to lower opening at introitus and lifted forward to prevent urethral injury urethra. Separate urethral and vaginal openings were seen behind fused labia minora after adhesiolysis. Bilateral labial skin closure was done with 3-0 Monocryl suture. Patient was discharged on same day after passing urine. Antibiotic was not prescribed after surgery. On follow-up visit after 6 weeks, labia majora and minora were completely normal appearing without any scarring or disfigurement.

**Conclusions**

A thorough gynaecological examination is needed in females presenting with urinary complaints. Complex imaging is not needed for diagnosis of labial adhesions. Surgical treatment of labial adhesion is a simple procedure, can be done under local anaesthesia on outpatient basis.

**ABST-0523 - VP114**

**ePoster and Video Presentations**

### **Hysteroscopic management of submucosal cystic adenomyosis**

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#### **Background**

Although adenomyosis and small adenomyotic cysts are common in infertile patients, submucosal adenomyotic cysts are rare. The aim of this video is to demonstrate techniques of hysteroscopic management of submucosal adenomyotic cysts.

#### **Methods**

This report included two patients who underwent diagnostic and operative hysteroscopy as part of their evaluation. Case 1 is a 35-year-old female patient, G1P0, with history of an uncomplicated miscarriage at 6 weeks gestation and secondary infertility of 4 years duration secondary to ovulatory disorder. She underwent a saline infusion sonohysterogram under modified general anaesthesia as she suffered from vaginismus, and vulvodynia. An endometrial polyp was found and therefore a diagnostic hysteroscopy was performed at the same session. Case 2 is a 26-year-old female patient, G0P0, who is a known carrier of a genetic condition requiring PGT-M. After 3 cycles of IVF with PGT-M, 5 unaffected euploid blastocysts were banked. Adenomyosis was suspected during transvaginal ultrasound, and a partial septate uterus was diagnosed during hysteroscopy, but was not corrected upon patient's request. Two attempts at frozen-thawed cycles were cancelled due to thin endometrial lining of 5.2mm and 5.5mm, respectively. A third frozen-thawed cycle was completed despite an endometrial lining of 5.6mm. The patient conceived but miscarried at 6 weeks gestation.

#### **Results**

Hysteroscopic polypectomy was performed in case 1 and hysteroscopic septoplasty was performed in case 2. In both patients, a submucosal adenomyotic cyst was found and managed by drainage and coagulation of the cyst wall. Post-operative course for both cases was uneventful. Case 1 is planning to undergo IVF-ET. Case 2 underwent a frozen-thawed cycle, with endometrial lining thickness of 7.0 mm, 2 months after surgery. She conceived, had an uncomplicated pregnancy, and delivered vaginally at 39 weeks gestation.

#### **Conclusions**

Submucosal adenomyotic cysts, a rare presentation in patients with adenomyosis, can be easily diagnosed and successfully managed during hysteroscopy.

<https://player.vimeo.com/video/950545873?autoplay=1>

## Performance of the IOTA ADNEX model for the pre-operative classification of ovarian tumours in a real-life clinical setting in the Netherlands

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### Background

The International Ovarian Tumour Analysis (IOTA) Assessment of Different NEoplasias in the adnexa (ADNEX) model pre-operatively predicts the risk of malignancy of ovarian tumours and provides a multiclass risk prediction. The aim of our study is to validate this model in a real-life clinical setting in the Netherlands.

### Methods

A multicentre, retrospective study of prospectively collected ultrasound data from May 2020 to December 2021 was performed to investigate the diagnostic accuracy of the ADNEX model. The ultrasound examiners' experience varied. Pathology or follow-up with ultrasound according to the current Dutch guideline was used as reference standard. The diagnostic performance of the IOTA ADNEX model was calculated with 95% confidence intervals (CI) at different pre-defined cut-off values for the total risk of ovarian malignancy.

### Results

Data from 363 women were included, of whom 286 (78.8%) had benign, 24 (6.6%) borderline and 53 (14.6%) malignant ovarian tumours. The area under the curve was 0.92 (95% CI 0.89 – 0.96) if borderline tumours were considered malignant and 0.93 (0.89 – 0.96) if borderline tumours were considered benign. The highest Youden's Index was achieved at a cut-off of 12.5%, at which sensitivity and specificity were 88.3% and 80.8%, respectively. When specificity was preferred, the optimal cut-off point was 34%, with a corresponding sensitivity and specificity of 68.8% and 94.1%. If borderline tumours were considered benign, similar cut-off points gave slightly higher sensitivity at the expense of specificity. There was moderate discrimination between tumour subtypes.

### Conclusions

The ADNEX model showed good diagnostic performance in this cohort in which examiners with varying experience performed ultrasounds. A similar accuracy as in previously published validation studies was achieved, irrespectively of how borderline tumours were classified. In contrast to the current Dutch guideline (cut-off of 40%) our results suggest a cut-off of 34% for clinical practice in our population balancing specificity over sensitivity.



**ABST-0525 - P310**

**ePoster and Video Presentations**

**An observation that may increase the accuracy of hysterosalpingogram in predicting partial septate uterus**

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**Background**

Imaging studies such as hysterosalpingogram (HSG) may not be accurate in screening patients for partial septate uterus (PSU). The aim of this study is to illustrate an observation that can increase the accuracy of HSG in suspecting PSU.

**Methods**

This retrospective case series included fifteen infertile patients who had HSG as part of their infertility workup (2018-2023) and were found to have the balloon of the disposable HSG catheter touching both the uterine fundus (UF) and the internal cervical os (ICO). Such findings suggest a short distance between the UF and the ICO. This is based on the knowledge that the length between the UF and the ICO is 3 cm in a normal uterine cavity, while the length of a catheter balloon filled with the standard 2 cc of air is only 1 cm. All patients had a transvaginal 3D ultrasound (TV 3D US), and subsequently underwent a diagnostic hysteroscopy.

**Results**

The mean age and BMI were  $31.7 \pm 4.4$  years and  $27.0 \pm 5.6$  kg/m<sup>2</sup>, respectively. The mean FSH and AMH were  $6.7 \pm 2.0$  mIU/mL and  $5.5 \pm 5.2$  ng/mL, respectively. Additionally, the mean duration of infertility was  $3.5 \pm 2.2$  years and 53.3% of patients presented with primary infertility. A diagnosis of PSU was made on hysteroscopy in 14 patients (93.3%). The remaining patient (6.3%) had a T-shaped uterus. On HSG, eleven patients (73.3%) had no evidence of any mid fundal protrusion (MFP), and four patients (26.7%) had a subtle (<5 mm) MFP. In all 15 patients, both HSG and TV 3D US suggested a normal uterine cavity with a mean MFP length of  $0.21 \pm 0.29$  cm. On hysteroscopy, the mean MFP length was  $1.3 \pm 0.16$  cm.

**Conclusions**

This pilot study suggests that the findings of the disposable HSG catheter balloon touching both the UF and the ICO may indicate that such patients have an anomaly of the uterine cavity, most commonly a PSU, and therefore, a diagnostic hysteroscopy should be performed.

**ABST-0529 - P312**

**ePoster and Video Presentations**

### **Can AI help reduce the administrative workload in the gynaecology speciality?**

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#### **Background**

Aim: This systemic review aims to evaluate the current state and efficacy of AI-enabled dictation devices, medical note-taking software, and automated Electronic Health Records (EHR) systems. Additionally, we present our pilot project of an AI-enabled smart tool combined with a dictation device, designed to streamline clinical workflows and enhance the accuracy and efficiency of medical documentation.

Objectives: The primary objectives of this review are to:

- 1.
2. Analyse the integration and user adaptability of these technologies within healthcare systems.
3. Evaluate the impact of AI-enabled solutions on the quality and accuracy of medical documentation.
4. Present findings from a pilot study on our AI-enabled smart tool with a dictation device.

#### **Methods**

A comprehensive literature search was conducted across multiple databases, including PubMed, IEEE Xplore, and Google Scholar, to identify studies published in the last decade on AI-enabled medical documentation technologies. Keywords included "AI dictation," "medical note-taking software," "automated EHR," and "healthcare AI." Studies were selected based on their relevance, quality, and the robustness of their findings. The pilot study involved the implementation of our AI-enabled smart tool in a clinical setting, where its performance was evaluated based on criteria such as accuracy, time efficiency, user satisfaction, and integration with existing EHR systems.

#### **Results**

The review indicates that AI-enabled dictation devices and medical note-taking software significantly reduce administrative burdens, allowing healthcare providers to focus more on patient care. Automated EHR systems have been shown to improve the accuracy and completeness of medical records, thereby enhancing clinical decision-making and patient outcomes. However, challenges such as integration with existing healthcare systems, user adaptability, and data privacy and security concerns persist.

The pilot study for our AI-enabled smart tool demonstrated potential improvements in documentation efficiency and accuracy. We estimated time efficiency improvement by 30%, documentation accuracy increases by 25% compared to traditional methods, saving 30hrs/week of human workload of over 500 of our staff (consultants, medical secretaries, admin staff) saving approx. £5million / year.

## **Conclusions**

AI-driven documentation technologies hold significant potential to transform healthcare by reducing administrative workloads and improving the quality and accuracy of medical records. The benefits include enhanced clinical decision-making, increased provider satisfaction, and better patient outcomes. However, successful implementation requires addressing challenges related to system integration, user training, and data security. The results from our pilot study underscore the efficacy of AI-enabled tools in real-world clinical settings, paving the way for broader adoption. Continued innovation and rigorous evaluation are essential to fully harness the potential of AI in healthcare documentation.

**ABST-0531 - VP115**

**ePoster and Video Presentations**

### **Laparoscopic Lateral Suspension for Vaginal Vault Prolapse**

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#### **Background**

Pelvic floor disorders affect approximately 38% of women who have undergone hysterectomy. The incidence of vaginal vault prolapse following hysterectomy is estimated to range from 0.2% to 1%. Surgical intervention is recommended for women experiencing poor quality of life and those who have not responded to physiotherapy exercises. Numerous surgical approaches have been documented in the literature over the past few decades, encompassing transabdominal or transvaginal techniques using native tissue or mesh reinforcement. Laparoscopic lateral suspension with mesh was published by Dubuisson & Dubuisson in 2012 as a surgical treatment for vaginal vault prolapse. This approach mitigates the risks associated with vascular injury and nerve damage encountered with standard sacrocolpopexy. In this didactic video presentation, we aim to delineate the sequential steps involved in performing laparoscopic lateral suspension with mesh.

#### **Methods**

This video highlights the clinical case of a 50-year-old woman presenting with symptomatic genital prolapse classified as stage 3 according to the POP-Q classification, involving apical and anterior vaginal wall prolapse. A laparoscopic lateral suspension with mesh was selected as the primary intervention for prolapse repair.

#### **Results**

The postoperative recovery period was uneventful, and subsequent one-year follow-up examinations revealed no recurrence of genital prolapse or de novo urinary incontinence.

#### **Conclusions**

Lateral suspension with mesh for the repair of post-hysterectomy vaginal vault prolapse emerges as an effective and reproducible surgical procedure associated with a low risk of complications.

<https://player.vimeo.com/video/950611861?autoplay=1>

### **Sentinel lymphnode mapping in endometrial cancer**

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#### **Background**

Endometrial cancer (EC) is the most common gynaecological cancer in high income countries and its incidence is rising globally. Treatment is mainly surgical, especially in the early stages, with or without lymphadenectomy. While the performance of systematic lymphadenectomy is controversial because of possible complications such as lymphedema, there is general agreement on the importance of studying the lymph nodes for prognosis using the sentinel lymph node (SNL) technique. There are various techniques in the literature for SNL mapping (based on the tracer used, injection site, concentration, and ultra-staging protocol). The present scoping review has the aim to give an overview of the different protocols used from SNL mapping in EC.

#### **Methods**

The studies were identified with the use of following text word "sentinel lymph node and endometrial cancer" in PubMed and Scopus Databases. We included studies that identified the SNL technique with Indocyanine Green, methylene blu, technetium-99m radiocolloid and or combination of these. Were included the published with laparotomy, laparoscopy and robotic surgical performance to SNL biopsy. We did not set a minimum number of enrolled patients as a reason for inclusion. Were excluded: review, metanalysis, personal opinion, congress communications and no abstract available. We excluded the published in not English language. We analysed the total Detection rate (DR) based on the different type of tracer used, we examined the route of administration and ultrastaging examination of SNL; we analysed the surgical performance to biopsy of SNL and examined the dilution and type of administration of various tracers.

#### **Results**

A total of 70 studies met our search criteria; 8 were excluded; The highest total DR of SNL biopsy is reached when the different tracers are used together, in particularly a maximum peak of 94% in studies using Tecnezio 99 more Indocianiyne Green but the absolute highest DR was with RI injection of Indocianiyne Green during the surgical procedure, approaching a value of 98%. The cervical injection route had a significantly higher DR than the hysteroscopic via. Where was conducted the ultrastaging protocol the DR was higher and were the biopsy was performance by robotic couple with laparoscopy. There was no evidence of a higher DR for indocinine green based on the type of dilution.

#### **Conclusions**

SNL biopsy in ER with Indocyanine green has an ease of execution of execution, minimal contraindications and high DR so is widely convenient. it's convenient perform SNL biopsy through cervical route with possible reinjection during the surgical procedure, possibly robotic and/or laparoscopic, especially with an analysis of ultrastaging of lymph nodes.



**ABST-0541 - P051**

**ePoster and Video Presentations**

**Anal incontinence and transperineal ultrasonography at three months after delivery complicated by obstetric anal sphincter injury: a retrospective cohort study**

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**Background**

Obstetric anal sphincter injuries (OASI) are a complication at delivery and a risk factor for long-term anal incontinence. Their management at diagnosis has been the subject of recent national recommendations, but there is no consensus on women follow-up. Our aim was to study the link between anal incontinence at 3 months after OASI and the appearance in transperineal ultrasound of the anal sphincter and urogenital hiatus.

**Methods**

We included women who gave birth and had a diagnosis of OASI between 2019 and 2022 in University Hospital Center of Angers. A proctology consultation and transperineal ultrasound were suggested at 3 months. During the consultation, women were asked about anal continence and other digestive symptoms. During transperineal ultrasound, good healing of the anal sphincter was observed, and measurements of the area and angle of the urogenital hiatus were taken.

**Results**

160 women were diagnosed with OASI between 2019 and 2022. Ninety-four women (58.8%) attended both consultations, with data complete for 81 (51%) of them. Of 94 women, 37% of patients reported anal incontinence (flatus or stools). The presence of an anal sphincter defect was significantly higher in the incontinent group (11%,  $p = 0.02$ ). There was no significant difference in urogenital hiatus area or angle with anal continence.

**Conclusions**

The presence of an anal sphincter defect on transperineal ultrasound is associated with anal incontinence at 3 months after OASI. Long-term follow-up could be proposed to those women in order to study the interest of these early measures in the late onset of symptoms.

**Prognostic value of modern diagnostic methods of chronic endometritis as a factor of reproductive losses**

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**Background**

Among the factors of reproductive losses pathology of the endometrium occupies a leading place, and the diagnostic management of chronic endometritis remains an urgent issue. The purpose of the work was to determine the diagnostic possibilities of hysteroscopic and immunohistochemical studies of the endometrium for chronic endometritis in women with foetal loss syndrome

**Methods**

A prospective study of 46 women with reproductive losses in the early stages included clinical and anamnestic and laboratory examination. Diagnostic search for the causes of miscarriage, in addition to standard approaches, included hysteroscopic and immunohistochemical examination of the endometrium with the determination of a specific membrane protein (immunological marker of plasma cells - cd138) and the number of unk cells(cd56). The optimal time for the examination was the period from the 7th to the 10th day of the menstrual cycle. A positive result for cd138 was the detection of more than 5 cells, and for cd56, an increase in the indicator from the norm by 4-5 times. Assessment of the microbiocenosis of the vagina was carried out using the polymerase chain reaction and included the diagnosis of the microflora of the urogenital tract

**Results**

The main factors of the deterioration of the health status of the research group:47.8% indicated an early sexual debut;21.7% had more than 3 partners and risky sex; 54.3% of women had bad habits.in 32.6%, BMI ranged from 25 kg/m<sup>2</sup> to 32 kg/m<sup>2</sup>. in the gynaecological history of 45.6% of patients' invasive intrauterine procedures were observed in connection with structural pathology of the endometrium (21.7%) and bleeding during spontaneous miscarriage (23.9%), secondary infertility (32.6), inflammatory diseases of the appendages uterus (17.4%); repeated abnormal vaginal discharge (67.4%). Difficult obstetric anamnesis included: early miscarriages (26%), frozen pregnancy (6.5%); implantation loss after transfer (21.7%). Abnormal uterine bleeding prevailed in 67.4% of respondents among complaints from the menstrual cycle disorder, which included heavy periods (56.5%), increased duration of menstruation (58.7%), intermenstrual bleeding (15.2%), cases of amenorrhea (8.7%). 43.8% of women had cramp-like pain in the lower abdomen on critical days and 10.7% did not associate the onset of pain with the cycle.in the hysteroscopic picture 82.6% of patients had hyperemia, edema of the mucous membrane, micropolyps, uneven thickness of the endometrium, which indicated signs of chronic endometritis. In this cohort of examinees, a positive immunohistochemical result of markers of chronic endometritis (cd138, cd56) was obtained in 63%. The results of the screening of the vaginal biotope revealed the predominance of opportunistic flora (mycoplasma, fungal infection).

**Conclusions**



The coincidence of the results of hysteroscopic and immunohistochemical examination in favour of chronic endometritis was observed in 29 patients. In 9 cases of these women the hysteroscopic picture of chronic endometritis was not confirmed by a positive result of cd138, cd56. 8 respondents from the study group had unclear hysteroscopic characteristics of chronic endometritis and moderately pronounced changes in the results of immunohistochemical examination. Therefore, verification of the diagnosis of chronic endometritis in women with reproductive losses should include a comprehensive examination: hysteroscopic and immunohistochemical and take into account the results of urogenital biocenosis

**ABST-0551 - P052**

**ePoster and Video Presentations**

### **Tips and Benefits of In-bag Morcellation: A Retrospective Study from Our Hospital**

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#### **Background**

This study investigated the characteristics of ectopic leiomyomas [including parasitic myoma (PM) and disseminated peritoneal leiomyoma (DPL)] and evaluated the effectiveness of in-bag morcellation to reduce the risk of developing PM/DPL after laparoscopic myomectomy.

#### **Methods**

Surgical procedure: Laparoscopic myomectomy was performed in a four-port para-axial position using the MOLSAFE™ bag, a laparoscopic retrieval system approved in Japan in 2016. The bag allows for in-bag morcellation under direct camera visualization through two openings, and by inserting a morcellator and camera port into each opening, tissue sectioning can be performed under the camera's direct view. The large ring-shaped opening for the morcellator has a wide frontage to accommodate the tissue to be recovered. The small opening for the camera port is located at the tail end, designed to cover the camera port. Both openings are pulled out of the abdominal cavity to perform morcellation.

Retrospective study: A retrospective analysis of 30 PM/DPL cases treated laparoscopically at our institution, including patient background and surgical findings, was conducted. Additionally, we retrospectively evaluated the incidence of PM/DPL and risk factors in patients who underwent laparoscopic myomectomy for leiomyoma.

#### **Results**

Among the 30 PM/DPL cases, one each required emergency surgery for torsion and infection. Eight cases had severe intestinal adhesions, requiring partial ileal resection in one. Since adopting in-bag morcellation, no complications have occurred in the procedure. The PM/DPL incidence dropped from 16.9% (pre-in-bag) to 0% (post-in-bag). Based on multivariate analysis, enucleated myoma weight and open morcellation were identified as significant risk factors for PM/DPL development.

#### **Conclusions**

Ectopic leiomyomas pose a risk of torsion, infection, and, more frequently, intestinal adhesion, potentially increasing surgical difficulty and complications. Implementing a standardized in-bag morcellation technique for all patients undergoing laparoscopic myomectomy may decrease the incidence of PM/DPL and subsequent high-risk surgeries.

**ABST-0711 - P037**

**ePoster and Video Presentations**

**Case Series Review of Endometriosis Associated Ovarian Cancer (EAOC) from a Tertiary Endometriosis Centre.**

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**Background**

Endometriosis is a chronic, debilitating, life-long condition that affects 10% of women, up to 30% of women with subfertility and up to 60% of women with chronic pelvic pain. It is well established that endometriosis shares many pathogenic features of cancer development such as the chronic inflammatory environment, tissue invasion, active angiogenesis and resistance to apoptosis. Recently, data has accumulated to suggest endometriosis is associated with an increased ovarian malignancy risk termed, Endometriosis Associated Ovarian Cancer (EAOC)

**Methods**

We have conducted a review of all patients with the three following criteria: 1) malignant change within an existing endometrioma 2) malignant change in a contralateral ovary to an existing endometrioma or 3) ovarian cancer with deeply infiltrative endometriosis.

**Results**

We will present expert opinion and lessons learned for a case series >n=10 to direct high suspicion of malignancy based upon radiological findings, namely, unilocular lesions and hypo-intensity on T1-weighted images in the cystic components of existing endometriomas.

**Conclusions**

The clinical diagnosis of EAOC is challenging. Endometrioma is a frequent finding in women with endometriosis, while EAOC is a rare occurrence. MRI has an essential supportive role, and we have delineated the essential findings that should raise suspicion of malignancy. Women with EAOC are diagnosed at an earlier stage and have a more favourable histological grade than other ovarian forms of ovarian cancer with no endometriosis with better progression-free and overall survival rates.

**ABST-0664 - P184**

**ePoster and Video Presentations**

## **Scarless Surgery: Natural Orifice Hysterectomy Trumps Laparoscopic Approach in Speed and Recovery**

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### **Background**

With increasing gynaecology waiting lists, operations with same-day discharge promise to deliver effectiveness and efficiency in clinical practice. The demographic trends in obesity and ageing do introduce additional challenges in terms of rising co-morbidities in patients who are living longer.

There is also an increased demand to perform more procedures in the same amount of time to improve wait times. The hysterectomy via Vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) is relatively new and the unit is the first to introduce it in Scotland. This study was carried out to determine whether vNOTES hysterectomy achieved faster operating time, reduced estimated blood loss, and faster discharge time compared to laparoscopic hysterectomy.

### **Methods**

A retrospective mono-centric, single-surgeon cohort study was carried out whereby all vNOTES and laparoscopic hysterectomy procedures between May 2018 and January 2024 were reviewed. Data was collected and analysed using SPSS. Probability scores were assigned to results to determine any statistically significant differences.

### **Results**

This study has demonstrated that, with equivalent demographics, vNOTES hysterectomies have significantly shorter operating times compared to laparoscopic hysterectomies ( $p=0.035$ ). Neither age nor BMI appeared independently related to discharge time. Again, despite equivalent demographics, patients were discharged home sooner with a mean time for laparoscopic hysterectomy of 24.2 hours compared to vNOTES hysterectomy at only 9.6 hours ( $p<0.001$ ).

Outcomes for both procedures were similar with low rates of complication within both groups.

### **Conclusions**

vNOTES hysterectomy is a safe and successful approach, regardless of patient demographics. Reduced operating times will increase the potential number of operations within one operating list, reducing wait times whilst achieving comparable outcomes to laparoscopic hysterectomy. With increasing surgical experience, the vNOTES operating time are expected to decrease further.

vNOTES hysterectomies have good success rates for same day discharges, reducing the pressure on inpatient services and improving patient recovery. Overall, vNOTES hysterectomy are a valuable alternative to current traditional approaches to hysterectomies.

**ABST-0570 - P053**

**ePoster and Video Presentations**

## **Colorectal Surgery for Deep Infiltrating Endometriosis: Patient Characteristics, Complications, and Functional Outcomes**

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### **Background**

This study aimed to:

- Describe the characteristics of patients with deep infiltrating endometriosis (DIE) lesions in our population.
- Compare the American Society for Reproductive Medicine (ASRM) scores between ultrasound and surgical evaluations.
- Identify early complications associated with colorectal resection in this population.
- Assess functional outcomes among patients following rectal resection for DIE.

### **Methods**

We conducted a retrospective observational review of 12 patients diagnosed via ultrasound with rectal lesions of deep infiltrating endometriosis, who subsequently underwent colorectal resection at our centre between 2019 and 2024.

### **Results**

The average age at the time of surgery was 36 years. The reasons for referral were sterility (n=7), pelvic pain (n=4), and rectal bleeding (n=1). Half of the patients (50%, n=6) had prior abdominal surgeries, and 83% (n=10) were nulliparous.

All patients exhibited symptoms related to endometriosis at diagnosis. Dysmenorrhea was reported by 83% (n=10) with a median EVA score of 8 (range 5-10). Chronic pelvic pain was noted in 50% (n=5) with a median EVA score of 7 (range 3-9). Dyspareunia was experienced by 58% (n=8) with a median EVA score of 8 (range 8-10), and 33% (n=4) reported dyschezia with a median EVA score of 7.5 (range 6-8). No patients reported dysuria.

Initial ultrasound evaluations classified all patients at stage IV in the ASRM classification. The average size of rectal lesions was 27.72 mm (SD 16.02 mm). The mean operative time was 338 minutes (SD 44). Surgical evaluations confirmed stage IV ASRM classification for all patients.

No intraoperative complications were observed. The overall early morbidity rate was 17%, with 2 patients developing early complications: 1 with rectal bleeding and 1 with hemoperitoneum due to an anastomotic leak, requiring reoperation.

The average hospital stay was 7.33 days (SD 3). The mean size of colorectal resections was 11.88 cm, and the mean size of endometriotic lesions was 3.12 cm. Five patients underwent rectal functional evaluations at 6- and 9-months post-surgery, with mean LARS scores of 32.5 at 6 months and 20 at 9 months. Anal manometry results were normal for all evaluated patients.

### **Conclusions**

Endometriosis affects 10-15% of the female population, with deep infiltrating endometriosis diagnosed in 20% of these cases. Bowel endometriosis occurs in 5-12% of patients, with the colorectum being the most common site in 90% of cases.

Colorectal surgery for endometriosis carries significant risks, including rectovaginal fistula, anastomotic leakage, stenosis, and voiding dysfunction.

Surgical management of colorectal endometriosis is complex and often involves resection of multiple DIE lesions. Patient selection for surgery is crucial and should be based on a multidisciplinary approach and comprehensive preoperative imaging by experienced physicians.

## **ABST-0580 - VP124**

### **ePoster and Video Presentations**

#### **Robotic Excision of Caesarean Scar Niche Using Firefly Mode with Hysteroscopic Guidance**

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#### **Background**

To demonstrate a step-by-step approach to the excision of a caesarean scar, known as a "niche," using a robotic platform guided by near-infrared light. The case involves a 40-year-old patient (G3P1021) with a history of secondary infertility who has been referred by a reproductive endocrinologist for surgical management of a caesarean scar niche. The patient's surgical history includes a previous caesarean section, dilation and curettage for a caesarean scar ectopic, and salpingectomy for a tubal ectopic pregnancy.

#### **Methods**

A preoperative ultrasound revealed a caesarean scar defect with a residual myometrial thickness of 1.9 mm and an incomplete septum measuring 1.5 cm. Hysteroscopy was performed to resect the incomplete septum using scissors and to identify the defect. While the hysteroscope tip was used to transilluminate through the uterine wall, the robotic Firefly technology was used to recognize the defect borders transabdominally. A robotic-assisted laparoscopic excision was then carried out, and the defect was closed in two layers using 0-barbed sutures.

#### **Results**

The patient underwent robotic excision of the caesarean scar niche with hysteroscopic guidance and uterine septum resection. The estimated blood loss was 50 ml. She was discharged on the same day of the surgery.

#### **Conclusions**

Using the Firefly mode under hysteroscopic guidance during robotic excision of a caesarean scar niche allows for precise surgical mapping and may improve surgical outcomes.

<https://player.vimeo.com/video/951350919?autoplay=1>

**ABST-0597 - P322**

**ePoster and Video Presentations**

**Outpatient Hysteroscopy Practice at the University Hospitals of North Midlands NHS Trust: An Audit Against RCOG and BSGE Standards**

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**Background**

This audit aimed to evaluate the outpatient hysteroscopy services at the University Hospitals of North Midlands (UHNM), one of the largest NHS trusts in the UK. By comparing our practices with the guidelines set by the Royal College of Obstetricians and Gynaecologists (RCOG) and the British Society for Gynaecological Endoscopy (BSGE), we sought to identify areas for improvement to enhance patient care and service efficiency.

**Methods**

We conducted a comprehensive audit focusing on two primary domains: patient satisfaction and technical standards. Data were collected on patient feedback regarding their experiences, as well as key performance indicators such as success rates of procedures, incidence of complications, and adherence to best practice guidelines.

**Results**

The audit revealed several strengths in our outpatient hysteroscopy service, including high patient satisfaction scores and a low complication rate, aligning closely with RCOG and BSGE recommendations. However, areas for improvement were identified.

Presenting our results and recommendations at the ESGE Conference 2024 will provide valuable insights for other institutions aiming to benchmark and enhance their hysteroscopy services. Continuous auditing and alignment with professional guidelines are crucial for maintaining high standards of patient care in outpatient gynaecological procedures.

**Conclusions**

Our findings highlight that while the UHNM's outpatient hysteroscopy service performs well against national standards, there are specific areas that require attention to optimize patient outcomes and service delivery.

Presenting our results and recommendations at the ESGE Conference 2024 will provide valuable insights for other institutions aiming to benchmark and enhance their hysteroscopy services. Continuous auditing and alignment with professional guidelines are crucial for maintaining high standards of patient care in outpatient gynaecological procedures.



**ABST-0600 - P324**

**ePoster and Video Presentations**

### **Molecular factors predicting ovarian chemotoxicity in fertile women: a systematic review**

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#### **Background**

Recent advances in cancer diagnosis and treatment have significantly improved survival rates among women of reproductive age facing cancer. However, the potential iatrogenic loss of fertility caused by chemotherapeutic agents underscores the need to understand and predict chemotherapy-induced ovarian damage. This study addresses this gap by systematically reviewing the literature to investigate genetic markers associated with chemotherapy-induced ovarian failure (CIOF).

#### **Methods**

The primary objective is to identify genetic markers linked to CIOF, contributing to a comprehensive understanding of the factors influencing fertility preservation in female cancer survivors. A systematic review was conducted using PubMed, MEDLINE, EMBASE, Web of Science, Scopus, and OVID electronic databases from inception through December 2023. Studies were included if they featured genomic assessments of genes or polymorphisms related to CIOF in women with histologically confirmed tumours. Exclusion criteria comprised in-vitro and animal studies, reviews, and pilot studies. The resulting four human-based studies were scrutinized for insights into genetic influences on CIOF.

#### **Results**

Of the 5,179 articles initially identified, four studies met inclusion criteria, focusing on alkylating agents, particularly cyclophosphamide, and anthracyclines. Su *et al.* explored CYP3A41B variants, revealing modified associations with CIOF based on age. Charo *et al.* investigated GSTA1 and CYP2C19 polymorphisms, emphasizing the need to consider age and tamoxifen therapy in assessing associations. Oktay *et al.* delved into the impact of BRCA mutations on anti-Müllerian hormone (AMH) levels post-chemotherapy, supported by in vitro assays. Van der Perk *et al.* focused on childhood cancer survivors and revealed significant associations of CYP3A43 and CYP2B6\*2 SNPs with AMH levels.

#### **Conclusions**

This systematic review analyses evidence regarding genetic markers influencing CIOF, emphasizing the complex interplay of age, specific genetic variants, and chemotherapy regimens. The findings underscore the need for a personalized approach in assessing CIOF risk, integrating genetic markers with traditional ovarian reserve testing. The implications of this study extend to potential advancements in fertility preservation strategies, offering clinicians a comprehensive baseline assessment for tailored interventions based on each patient's unique genetic profile. Further

research is essential to validate these findings and establish a robust framework for integrating genetic markers into clinical practice.

**Laparoscopic ethanol sclerotherapy for endometrioma; tips and tricks**

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**Background**

The estimated prevalence of endometriosis in general population is approximately 10%. Endometrioma can profoundly affect quality of life by causing pain and infertility. Patients with endometriosis may not benefit from medical treatments. In this case, surgical treatment options are evaluated. The main surgical procedures for endometrioma are laparoscopic cystectomy, laparoscopic fenestration and bipolar or laser diathermy, ultrasound-guided or laparoscopy-guided aspiration, and aspiration and sclerotherapy. However, among endometriotic patients seeking fertility, cystectomy diminishes ovarian reserve. It can cause removal or destruction of healthy ovarian tissue, increasing the need for higher gonadotropin doses in assisted reproductive technology treatments. For this reason, sclerotherapy, an old technique, has gained importance recently. Here in, we present a laparoscopic ethanol sclerotherapy video discussing tips and tricks.

**Methods**

The surgical steps for laparoscopic ethanol sclerotherapy are as follows:1. Puncture the cyst and then aspirate endometriotic contents, 2. Flush the cyst with saline, 3. Insert a catheter for ethanol infusion 4. Fill the cyst cavity with 96% ethanol and wait for 10 minutes, 5. Aspirate ethanol and remove catheter, 6. Take a biopsy by using cold knife, 7. Apply diathermy to areas that were not exposed to alcohol.

The cyst wall can be observed from inside and if there is a suspicious papillary protrusion, a biopsy can be taken. In case of alcohol leakage, laparoscopy provides the advantage of washing the peritoneal surfaces and fallopian tubes, unlike the vaginal approach. Other necessary surgeries can also be performed after sclerotherapy.

**Results**

Here we presented a 29-year-old patient who complained of dysmenorrhea and pelvic pain and whose ovarian reserve was within normal limits. She had desire for natural conception. Hence, we performed laparoscopic sclerotherapy. We clearly showed the important points and tricks. In this patient, superficial endometriotic foci were coagulated and tubal patency was evaluated by chromopertubation due to the desire for fertility. The cyst should be evaluated according to the IOTA Adnex model before the procedure. Two ports are adequate for laparoscopic sclerotherapy. Adhesions should not be removed before the procedure to avoid cyst rupture. Leaving the trocar inside facilitates subsequent aspiration and catheter placement. Endometrioma content leakage is likely clinically insignificant. The cyst is washed until the fluid becomes clear, then a Foley catheter is inserted and inflated, preventing alcohol leakage into the abdomen. The upper part of the cyst wall not exposed to alcohol can be biopsied if needed; diathermy with bipolar cautery may reduce recurrence risk. In case of alcohol leakage, laparoscopy allows washing peritoneal surfaces unlike vaginal approach.

**Conclusions**

In patients with endometrioma who desire fertility and unresponsive to medical treatments, laparoscopic sclerotherapy is a feasible procedure with low complication rate, less hospital stay, fast recovery period, and similar recurrence rates to cystectomy.

<https://player.vimeo.com/video/951491427?autoplay=1>

**ABST-0608 - P326**

**ePoster and Video Presentations**

**effectiveness of relugolix combination therapy in a clinical setting: preliminary results of an Italian multicentre real life experience.**

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## **Background**

to evaluate the effectiveness, tolerability and surgical advantages of the recently released GnRH-antagonist combination therapy (Relugolix-CT) containing oestradiol 1mg and norethindrone acetate 0.5mg.

## **Methods**

we performed a retrospective observational study at University Hospital Federico II (Naples) and at Public Hospital (Palermo) from Jun 1, 2022, to Jan 31, 2024. Women aged 18-45 were included, all presenting with uterine myomas associated with heavy menstrual bleeding (HMB) and prescribed with Relugolix-CT. Transvaginal ultrasound assessment was performed in all women. Clinical and pathological data were obtained from clinical records. HMB was diagnosed with a score higher than 100 using the Pictorial Blood Assessment Chart scoring system and corresponding to >80ml of blood loss. Dysmenorrhea was registered using a visual analogue scale (VAS 0-10). Follow up visits were performed after 3,6,9 and 12 months of therapy.

## **Results**

A total of 73 women prescribed with Relugolix-CT were included. The mean age was 43.9 ( $\pm$  5.9) years ranging from 25 to 52 years of age, 9.6% of patients had previously been treated with GnRH-agonists and 34.2% of women underwent myomectomies in the past. All patients reported HMB with a mean PBAC score of 328.79 ( $\pm$  225.74).

After one month of therapy 83.56% of patients referred amenorrhea or spotting; the same was registered by 82.25% after 3 months, by 83.33% after 6 months and by all patients in follow up after 12 months of therapy. The presence of HMB was reported by 12.9% of patients (PBAC score: 125.0  $\pm$  96.3) at 3 months follow up.

A reduction in dysmenorrhea was registered as well, passing from a VAS of 6.93 ( $\pm$  1.96) in 76.71% of patients to a VAS of 4.0 ( $\pm$  2.49) in the 25.81% of cases at 3 months of therapy. 27 patients out of 62 (43.54%) referred minor adverse events after 3 months, mainly mild vasomotor symptoms (12.9%) or mild headache (19.35%).

16 patients (21.9%) underwent laparoscopic, hysteroscopic or laparoscopic myomectomies, with reduced intra-operative bleeding, a promptly detachable fovea appearance and no post operative complications. After surgery, 3 patients are waiting for assisted reproduction techniques with ovodonation.

## **Conclusions**

our data confirm Relugolix-CT as a safe, effective and well-tolerated therapy in women with uterine myomas suffering with HMB, with a promising clinical profile even in younger patients. Further studies are needed to evaluate the possible use of this therapy in a fertility planning strategy, thus postponing surgery until desire for pregnancy rises. Moreover, our data show beneficial effects of the preoperative treatment with Relugolix-CT for a successful and one-step myomectomy.

### **Tips and Tricks for Effective Laparoscopic Uterosacral Ligament Suspension**

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#### **Background**

A great variety of surgical techniques for apical pelvic organ prolapse (POP) have been reported.

Apical procedures can have an effect on multiple levels of Delancy. The main goal of apical procedures is to restore level 1 support, but it can also have an impact on level 2 defects.

The anatomic success rate of the laparoscopic uterosacral ligament suspension was 90% and an apical recurrence of 10% that we found in a review. Only the laparoscopic sacrocervicopexy seems to be superior according to the literature. No difference was found regarding complications, postoperative pelvic pain, dyspareunia or de novo stress incontinence.

Even though the use of abdominal mesh has a lower risk of complications compared with vaginal mesh, a growing number of women and physicians have reservations regarding the use of mesh and prefer native tissue repair.

The advantage of the laparoscopic uterosacral ligament suspension over via vaginal route is the superior visualization of the anatomy and localization of the ureters and hypogastric nerves. This minimalizes the risk of ureteral injury and obstruction, allowing safe high suture placement and good apical support.

#### **Methods**

Surgical video from a case with adenomyosis and stage 2 uterine prolapse.

#### **Results**

Laparoscopic subtotal hysterectomy was performed under carefully retroperitoneal monitoring. Okabayashi pararectal space was open first with ureter lateralized as well as uterine vessels. Then the hypogastric nerve was identified and lateralized in order to prevent incorporating the nerve while performing uterosacral ligament suspension. Last, the peri-rectal space was open (between rectum and uterosacral ligament) in order to isolate uterosacral ligament all the way to the level near the sacral bone and thus allowing deep suture bite of the ligament.

#### **Conclusions**

For patient with uterine pathology indicated of hysterectomy and accompany with apical prolapse, concomitant laparoscopic uterosacral ligament suspension is a promising procedure for restoring level 1 and level 2 support.

<https://player.vimeo.com/video/951537810?autoplay=1>

**ABST-0631 - VP137**

**ePoster and Video Presentations**

### **Placental Polyps: Exploring Various Management Approaches**

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#### **Background**

Though rare, placental polyps pose significant challenges due to their potential for causing abnormal uterine bleeding and subsequent reproductive complications. This presentation explores various management options for placental polyps, particularly using advanced surgical tools such as power morcellators and resectoscope loop electrodes.

#### **Methods**

This is a video presentation of two cases of placental polyp removal, employing hysteroscopic morcellation and resectoscope techniques. The cases involved patients who experienced recurrent miscarriages and secondary infertility, with a diagnosis of placental polyps suspected by trans-vaginal 2D and 3D ultrasound with saline infusion sonohysterogram and confirmed on hysteroscopy. Each patient underwent selective removal of the placental polyps using either a mechanical morcellator or a right angled resectoscope loop electrode with monopolar energy.

#### **Results**

Both hysteroscopic morcellation and resectoscope techniques effectively removed placental polyps, as confirmed by histopathological examination. The mechanical morcellator technique resulted in minimal intraoperative and postoperative bleeding, with no residual polyps detected on follow-up ultrasound scans. The resectoscope technique enabled precise targeting and excision of the polyps while minimizing damage to surrounding tissues. Despite the need for specialized skill and training, the resectoscope was found to be as effective as the mechanical morcellator. Additionally, the resectoscope technique offered the benefits of greater availability and lower cost, making it a viable alternative for many clinical settings, particularly in the case when the placental polyp is in a challenging or hard-to-reach areas via the mechanical morcellator.

#### **Conclusions**

Both mechanical morcellators and resectoscopes are safe and effective for hysteroscopic removal of placental polyps, with the choice depending on factors like polyp size, vascularization, and surgeon preference. This retrospective analysis confirms both techniques' efficacy and safety, with the mechanical morcellator showing minimal bleeding and quick recovery, while the resectoscope offers precise removal with excellent visualization. Both methods offer flexibility in treatment choices based on individual patient needs and resource availability.

<https://player.vimeo.com/video/951680560?autoplay=1>



**ABST-0636 - VP141**

**ePoster and Video Presentations**

### **Combined Laparoscopic Surgical Approach in Infertile Patients with Endometriosis**

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#### **Background**

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#### **Çeviri sonuçları**

Endometriosis is a common disease observed in approximately one third of infertile patients. There are 3 different types: Endometrioma, superficial and deep endometriosis. Medical treatment does not offer a sufficient solution for infertile patients. Surgical management is thought-provoking due to its negative impact on ovarian reserve. Options such as sclerotherapy and diathermy should be considered especially in endometriomas. In this video, we demonstrated the combined surgical approach in a 31-year-old patient who wanted a spontaneous pregnancy and had deep endometriosis accompanied by bilateral endometrioma.

#### **Methods**

A 31-year-old patient with chronic pelvic pain and pregnancy desire was diagnosed as bilateral endometrioma and deep infiltrative endometriosis. Laparoscopic surgical treatment was planned. Ethanol sclerotherapy was applied to the 5 cm endometrioma on the left side under laparoscopic guidance. During this procedure, firstly the endometrioma content was aspirated and then 96% ethanol was injected into the cyst. After 10 minutes of waiting time, all ethanol was aspirated. Subsequently, deep infiltrative endometriosis surgery was started. Bilateral ureterolysis and overolysis were performed, and the medial pararectal space were dissected after visualisation of bilateral ureters. After the rectosigmoid colon was release from the uterosacral ligament and uterus, bilateral endometriotic nodules on the uterosacral ligament were excised. Since the endometrioma in the right ovary ruptured during adhesiolysis, diathermy was performed with bipolar cautery.

#### **Results**

Surgical treatment may be an option in patients who desire to conceive spontaneously and have pelvic pain resistant to medical treatment. In infertile patients, sclerotherapy should be preferred primarily because it does not decrease ovarian reserve. Diathermy may be an alternative option in endometriomas that rupture during adhesiolysis. In our case, we demonstrated how effective endometrioma surgery can be performed in combination with deep infiltrative endometriosis surgery.

#### **Conclusions**

Different types of approaches should be evaluated in appropriate patients. Sclerotherapy may play a fundamental role in the surgical management of ovarian endometrioma. It stands out especially with the minimal effect of the method on ovarian reserve and its similarity with cystectomy in recurrence rates.

<https://player.vimeo.com/video/951701899?autoplay=1>

**Laparoscopic sacrocolpopexy with uterine preservation**

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**Background**

Pelvic organ prolapse (POP) is a progressive herniation of the pelvic organs through the urogenital diaphragm and commonly leads to vaginal bulge.

Sacrocolpopexy is a procedure that surgically corrects POP and can be performed as open abdominal surgery or laparoscopic surgery

Since the first description of graft-augmented sacrocolpopexy by Lane in 1962, the techniques and use of this procedure have been modified numerous times. In the past 10–15 years, what was once an open abdominal “salvage procedure” reserved mostly for recurrent apical prolapse has evolved into a minimally invasive laparoscopic surgery regularly performed for primary or recurrent prolapse with or without concomitant hysterectomy

**Methods**

This is the case of 55 years old woman with no medical history, Gravida 5 Para 5 with 5 vaginal deliveries.

She is complaining about a vaginal bulge sensation evolving over the past 2 years with no urinary incontinence. We report in the physical exam a Stage 3 Uterine Prolapse using the pelvic organ prolapse quantification system (POP-Q). As the Patient desire to preserve the uterus, the proposed treatment was a laparoscopic sacrocolpopexy with uterine preservation.

**Results**

The procedure was successfully conducted without perioperative complications and without blood loss. The operative time was about 90 min. Subsequently, the postoperative course proceeded uneventfully with Minimal postoperative pain. the patient was discharged 2 days after the surgery. and the outpatient follow up didn't show any prolapse recurrency.

**Conclusions**

Pelvic organ prolapse is a common problem among women. Although there are many different approaches to the management of pelvic organ prolapse, the type of surgical repair chosen is dictated by stage of prolapse, involved compartments, patient characteristics, and surgeon preference. The contemporary laparoscopic sacrocolpopexy is an operation that can be tailored to correct virtually all support defects for patients with vaginal vault or uterovaginal prolapse without need for concomitant vaginal prolapse repair.

<https://player.vimeo.com/video/951708496?autoplay=1>

**ABST-0649 - VP144**

**ePoster and Video Presentations**

## **50 Shades of Green: Illuminating Advances in Gynaecological Surgery with Indocyanine Green Fluorescence**

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### **Background**

The purpose of this study is to explore the utility of Indocyanine Green (ICG) fluorescence in gynaecological surgery. ICG, initially developed and FDA-approved in the 1950s, is gaining traction across various surgical disciplines for its ability to aid in real-time anatomical delineation and vascular perfusion.

### **Methods**

This study involved a series of laparoscopic surgeries where ICG was utilized in different scenarios: as an alternative to methylene blue for tubal dye tests, instillation into the bladder during total laparoscopic hysterectomy (TLH), ureteric administrations to aid in transperitoneal identification and during complex pelvic surgeries, vaginal administration to delineate the vaginal mucosa during full-thickness endometriotic nodule resection, and intravenous administration during bowel resection to demonstrate tissue perfusion. The dosage of ICG was carefully monitored, with intravenous administration not exceeding 0.5 mg/kg to minimize the risk of anaphylaxis, and a maximum recommended dose of 2 mg/kg per day was adhered to.

### **Results**

The videos included clearly demonstrate that the adjunctive use of ICG can aid in both operative speed and safety while shortening the anatomical learning curve for junior surgeons. It was effective in providing clear visualization of tubal patency, bladder demarcation, and ureteric identification, which were critical for the success of the surgical procedures. Specifically, ICG facilitated easier identification of the ureters in both straightforward and complex cases, including transperitoneal visualization and situations involving a frozen pelvis. Vaginal administration of ICG proved helpful in delineating nodules for excision, and intravenous use confirmed the integrity of bowel perfusion, which is crucial for preventing anastomotic breakdown. There were no adverse events or complications associated with the use of ICG in this study.

### **Conclusions**

The study concludes that ICG is a valuable tool in gynaecological surgery due to its safety, ease of use, and effectiveness in enhancing surgical visualization. Its application in various procedures demonstrates its versatility and potential to improve surgical outcomes by ensuring precise tissue identification and perfusion assessment. The integration of ICG into surgical practice offers significant advantages, making it a highly useful adjunct to both increase operative speed and reduce the incidence of complications in many laparoscopic gynaecological scenarios.

<https://player.vimeo.com/video/951981717?autoplay=1>

**ABST-0656 - P119**

**ePoster and Video Presentations**

### **Comparison of laparoscopic approaches in the assessment of endometrial cancer by obese versus non-obese patients**

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#### **Background**

Due to increasing prevalence of endometrial cancer the need for minimally invasive techniques is more relevant. Based on the recommendations of international guidelines in case of early-stage endometrial cancer (EC) minimally invasive surgery should be performed if it is possible. Thanks to latest advancements in case of obesity significantly reduced patient morbidity and mortality rates can be reached laparoscopically. The aim of our pilot study was to estimate the risk and evaluate intraoperative and postoperative complications of minimally invasive surgeries by obese patients.

#### **Methods**

Cases with EC were assessed at the Department of Obstetrics and Gynecology University of Debrecen between January 2022 and March 2024. Patients who had a body mass index (BMI) of 30 kg/m<sup>2</sup> or greater were compared to those whose BMI was less than 30 kg/m<sup>2</sup>. Completion rate of the planned surgery, rate of conversion to laparotomy and the complication rates were recorded.

#### **Results**

Out of 38 patients who met inclusion criteria, 24 (63.2 %) women had a BMI of 30 kg/m<sup>2</sup> or greater (obese subgroup), while 14 patients (36,8 %) were enrolled in non-obese subgroup. Every procedure comprised of hysterectomy with bilateral salpingo-oophorectomy and systematic lymphadenectomy was completed using endoscopic technique. Surgery was completed as planned in 95% of patients. Increased entry attempts and unsuccessful identification of key surgical landmarks were associated with increased BMI, but overall complication rate was less than 10 %. There was a higher mean BMI in case of complication, but the difference was not statistically significant. Operative time was not significantly longer in the obese subgroup. We did not find any significant difference in blood loss, conversion rate, surgical outcomes, and postoperative hospital stay.

#### **Conclusions**

Minimally invasive surgery can be performed successfully and safely in most obese EC patients with similar efficacy as in non-obese patients.

**ABST-0669 - VP149**

**ePoster and Video Presentations**

**Robotically assisted laparoscopic suture sacrocolpopexy, anterior and posterior colporrhaphy: A minimally invasive meshless technique for vault prolapse**

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**Background**

Laparoscopic mesh sacrocolpopexy has been established as the preferred option for the surgical treatment of vault prolapse. Nevertheless, recent controversies regarding synthetic mesh in pelvic reconstructive surgery have led to a search for alternative procedures.

Here, we present a video of a meshless robotically assisted laparoscopic suture sacrocolpopexy, anterior and posterior colporrhaphy for the treatment of vault and anterior prolapse in a patient with a previous hysterectomy.

**Methods**

We highlight the case of a 70-year-old patient, who had the above procedure in February 2024. The patient presented with stage III vault prolapse and stage III cystocele, overactive bladder and voiding dysfunction. She was keen to avoid the use of mesh.

The main surgical steps are:

- Identification of the sacral promontory followed by peritoneal incision and exposure of the anterior longitudinal ligament
- Dissection of the peritoneum of the medial pararectal space caudally up to the insertion of the right uterosacral ligament
- Dissection of the rectovaginal space
- Dissection of the vesicovaginal space
- Plication of the posterior and anterior vaginal walls with absorbable transverse sutures on the pelvic fascia
- Tension free suspension of the vaginal vault to the anterior longitudinal ligament at the sacral promontory with two monofilament non-absorbable sutures
- Retroperitonealisation of all non-absorbable sutures

**Results**

At the 3-month follow-up, the patient described her prolapse symptoms as 'very much better' and her urinary incontinence symptoms as 'much better'. Clinical examination revealed the resolution of prolapse in all compartments.

## **Conclusions**

This procedure seems a logical progression in prolapse surgery, responding to patients' wishes and offering women a minimally invasive meshless alternative to existing surgical approaches.

<https://player.vimeo.com/video/952057964?autoplay=1>

**ABST-0671 - P121**

**ePoster and Video Presentations**

### **Laparoscopic management of a post caesarean section uterovesical pseudocyst**

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#### **Background**

A uterovesical pseudocyst, otherwise known as a bladder flap haematoma, is a rare complication of caesarean section. This condition typically presents within the early postpartum period with signs of sepsis.

#### **Methods**

This is the first reported case of a chronic presentation of post caesarean section uterovesical pseudocyst.

#### **Results**

A 38-year-old woman presented to gynaecology with a history of menorrhagia and dysmenorrhoea three years after a caesarean section birth. A transvaginal ultrasound identified a 42 x 17 x 21mm right adenexal unilocular cyst with ground glass appearance. A repeat ultrasound 4 months later described stable views of the cyst and a diagnosis of suspected endometrioma was made. Diagnostic laparoscopy identified normal ovaries with no evidence of an adenexal cyst, but a tubular shaped, cystic structure was located anterior to the previous caesarean section with bladder adhesions overlying it. Adhesiolysis was performed and a thick, caseous liquid was drained from the pseudocyst cavity. The cavity was washed out and ablated with PlasmaJet. A levonorgestrel intrauterine device was also inserted. The extracted liquid was found to be aseptic and acellular.

#### **Conclusions**

This case highlights the benefits of laparoscopy in the diagnosis and management of unusual gynaecological pathologies. Additionally, it demonstrates a potential complication of bladder flap formation at the time of caesarean section.

**ABST-0679 - P337**

**ePoster and Video Presentations**

**The violation of the ovaries' endocrine function of fetuses born from mothers with PE: the pathogenesis of ovarian insufficiency in subsequent ontogenesis of female body**

*Larysa Kupriianova<sup>1</sup>*

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**Background**

It is well-known that the endocrine function of the ovaries depends on many factors. One of the most influential among them is the violation of laying and the formation of foetal gonads within the frame of influence of the mother's pathology. It is the endocrine and vascular disorders in the body of the pregnant woman and in the placenta during preeclampsia (PE) of the mother that lead to gross structural and functional changes in the ovaries of the foetus.

**The purpose of the study** is to reveal the peculiarities of the hormone-producing function of the ovaries of fetuses from mothers with PE.

**Research material:** ovaries of fetuses from mothers with PE (group of comparison), and gonads of fetuses from healthy mothers (control group). All fetuses died intranatally with a gestation period of 37-40 weeks.

**Methods**

Organometric, morphometric, histological, immunohistochemical, statistical

**Results**

Organometric indicators of the ovaries (weight, length, width and thickness) and morphometric data (relative volumes of the cortical layer, medullary layer, follicular component of the gonads) of the fetuses in the group of comparison were significantly reduced in relation to those of the fetuses of the control group. An overview microscopic study revealed a decrease in the follicular component of the ovaries, the phenomenon of sclerosis and hyalinosis in the walls of vessels of the organs of fetuses from mother with PE. The immunohistochemical method by applying MCAT for oestrogen and progesterone receptors enabled to establish the following characteristic features: if the ovaries of the fetuses of the control group had an excessive reaction to oestrogen (+++, 90% of cells) and a moderate reaction to progesterone (++, 75% of cells), then in the gonads of fetuses of the comparison group, the reaction of both hormones was negative.

The violations of the level of hormonal activity of foetal ovaries can be caused, first of all, by changes in the endocrine function of the placenta in this pathology; the therapy carried out to compensate for the mother's health condition, as well as the increased level of pro-inflammatory cytokines that occurs with PE.

**Conclusions**

In the ovaries of fetuses from mothers with PE, a negative reaction to both hormones was established by the immunohistochemical method by applying MCAT to oestrogen and progesterone. A decrease in the hormone-producing activity of foetal gonads can be the main link in the pathogenesis of infertility in the future, as well as contribute to the onset of early menopause in women who were born to mothers with PE.



**ABST-0680 - P123**

**ePoster and Video Presentations**

### **Atypical Endometriosis (AE) and it's malignant potential – a management conundrum**

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*<sup>2</sup>RSCH, Gynaecology, Guildford, United Kingdom*

#### **Background**

We aim to present the challenges in managing patients with histological finding of atypical endometriosis (AE) through 2 patients that were treated.

#### **Methods**

Summarised literature review on AE that helps guide logic in management.

Outlined patient journey, rational behind different treatment decisions and follow up for one of the patients

#### **Results**

The first patients was treated conservatively presented with pain secondary to a 5cm haemorrhagic endometrioma with a raised Ca125 both the haemorrhagic element and CA125 normalised before a recurrence 2 months later. This was treated with a unilateral salpingo-oophorectomy showing AE on histology. She was offered operative vs conservative follow up. She was followed up with MRI stepped down to TVUS after 2 years 6 monthly and Ca125s. This showed small endometriomas up to 2cm with intermittent haemorrhagic elements with one occasion in ca125 raising. This continued until 9 years later when a pipelle via AUB clinic revealed hyperplasia and the patient underwent LH USO and excision of deep endo after MDT. Histology showed AE in the left ovary, sigmoid and pelvic sidewalls in addition to complex hyperplasia. She continues to be monitored with 6 monthly MRI but now 3 monthly CA125s with no evidence of recurrence 4 years later.

The second patient is a more recent case who had a laparoscopy for pelvic pain found to have deep endometriosis and bilateral endometriomas. Cystectomies were performed and histology was AE and after counselling has had an elected for pelvic clearance after a period of down regulation which is still pending.

#### **Conclusions**

The 2 cases high light the spectrum of acceptable treatment and the need to expand our understanding of atypical endometriosis

We would recommend BSO or pelvic clearance depending on extent of endometriosis with 6 monthly TVUS with or without ca125 would likely be sufficient for ovarian disease but MRI would likely be needed for more widespread disease

**ABST-0682 - P338**

**ePoster and Video Presentations**

**Impact on Global Health Status, Quality-Sexual Life, and Chronic Fatigue State of bilateral salpingo-oophorectomy in BRCA mutation carriers: our centre experience.**

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**Background**

This study evaluates the impact prophylactic surgery (bilateral salpingo-oophorectomy) had on women's quality of life and sexual life for BRCA 1 and 2 mutation carriers.

**Methods**

This was a single-centre, retrospective study experience. Cases were 45 patients who underwent to a surgical treatment of bilateral salpingo-oophorectomy, between 2018 and 2024 at the Gynaecological Unit of the University of Naples "Federico II".

Subsequently these patients were tracked down to undergo questionnaires "GLOBAL HEALTH STATUS and Quality of life scale (QOL) (QLQ-C30); The EORTC Sexual Health Questionnaire (QLQ-SH22); Fatigue Severity Scale (FSS)"; to evaluate the psychological, sexual and general physical condition impact of the women before the surgery and 3-6 months later.

**Results**

We reported an impact of this surgery on their "QOL" in the first 3 months: score of 88.3 before of surgical treatment and score of 51.7 after this (p-value < 0.0001) with a mean differences of 36.6 points, and of 24.6 points at 6 months (p-value < 0.0001). The use of (EORTC QLQ-C30) we took into consideration various parameters of daily life with Functional Scales (Physical functioning; Role functioning; Emotional functioning; Cognitive functioning; Social functioning) (p-value < 0.0001) and with Symptom Scales (Fatigue; Nausea and vomiting; Pain; Dyspnoea; Insomnia; Appetite loss; Constipation; Diarrhoea; Financial difficulties) (p-value < 0.01). We found an impact on the women's life 3 months after the surgery, with a slight improvement at 6 months (p-value < 0.01). In comparison with (EORTC QLQ-SH22): we reported a score of 3.0(±)0.71 (before) and 2.3(±)0.91 (after) for the sexual satisfaction (p-value 0.0001), but no differences for sexual pain 1.6(±)0.53 vs 1.6(±)0.62 (p-value 0.1547). Other assessments were felt less feminine (p-value 0.0011); sexually active (p-value 0.0052); vaginal hydration (p-value 0.0326). The condition improved slightly at 6 months (p-value < 0.01). In conclusion with (FSS) total and for age, we assessed the chronic fatigue status of women. In fact, we reported a score of 2.7(±)1.15 (before) and 4.2(±)1.59 (after) (p-value < 0.0001). In our evaluation, it was the younger women (33-43 years) who were most affected by the loss of the hormonal impact of bilateral salpingo-ovariectomy without finding an improving impact at 6 months (p-value < 0.0001).

**Conclusions**

Bilateral salpingo-oophorectomy may impact quality of life due to symptoms associated with early surgical menopause, although it may be treated with hormone replacement therapies, as may impact sexual life and chronic fatigue in younger women. But even menopausal women are particularly affected at 3 months with a slight improvement at 6 months of the role of this surgery on their mental health. This type of treatment remains necessary due to the oncological history of these

women, but it is advisable to carry out proper counselling regarding the emotional and psychological impact of this surgery on our women.

**ABST-0684 - P124**

**ePoster and Video Presentations**

**Spontaneous tubo-ovarian abscess in a patient with ovarian endometriosis without any previous gynaecological manipulation. A case report.**

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### **Background**

The formation of de novo tubo-ovarian abscesses (TOA) within endometriotic cysts is an infrequent complication with few cases reported in the literature.

### **Methods**

We present a rare case of a tubo-ovarian abscess causing left hydronephrosis due to an endometrioma infection without any previous gynaecological manipulation.

### **Results**

A 50-year-old woman without previous gynaecological pathology was admitted with fever and abdominal pain. Diagnosis of 8cm left TOA was established by emergency ultrasound. Patient presented left hydronephrosis secondary to ureteral obstruction at the mass level. Endocervical cultures were negative. Haemocultures and urincultures were positive for E.coli BLEE. She was treated with percutaneous nephrostomy and Imipenem.

Six weeks later, an ultrasound was performed by an expert sonographer, diagnosing a 4cm left endometrioma with associated obliteration of the vesico-uterine space and Douglas pouch and a hypoechoic spiculated lesion of 13x10x27mm on the bladder base, suggesting DIE.

Patient underwent laparoscopic hysterectomy, bilateral salpingectomy, left oophorectomy and ureterolysis, with intra-surgical confirmation of bladder endometriosis and left ovary endometrioma.

### **Conclusions**

Some cases of endometrioma-related TOAs have been described as secondary to urinary infections, arguably related to hematogenic dissemination secondary to unnoticed bacteriemia. Formation of TOAs within endometriomas may be boosted by the content of the cyst being a culture medium for pathogens, and by the altered intraperitoneal immune environment with decreased NK count.

The echographic diagnosis of infected endometriomas may overlap with non-endometriotic-TOAs: hypoechoic-content cysts with liquid-liquid levels, containing small foci with non-pure posterior-shadowing corresponding to gas bubbles, thickened capsule and enhanced vascularization.

In the reported case, it is suspected that DIE caused obstructive left-hydronephrosis, this being the etiological cause for E.coli BLEE urinary infection which secondarily affected the endometrioma.

**ABST-0685 - P125**

**ePoster and Video Presentations**

**A retrospective audit investigating the rate of negative laparoscopy for gynaecological emergencies over a 1-year period.**

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## **Background**

In the UK currently, there are no national, or even regional guidelines on the optimum rate of negative laparoscopy and therefore it is essential that each Trust conducts regular audits of their practice. Our primary objective was to investigate the rate of negative laparoscopy for gynaecological emergencies (suspected ovarian pathology or ectopic pregnancy) at our hospital. Secondary objectives included collecting data on the time between suspicion of torsion being raised and treatment. Other secondary objectives included identifying the types of pathology mimicking ovarian torsion or ectopic pregnancy clinically, as well as look at the complication rate related to surgery.

## **Methods**

Retrospective audit that looked at all the emergency laparoscopy cases performed by the benign gynaecology team at Royal Surrey County Hospital (RSCH) from 1st February 2023 until 1st February 2024. Data was collected from electronic patient records on presenting symptoms, patient demographic, initial investigations, operative findings, procedure carried out and complications. Data was processed using Windows Excel.

## **Results**

55 emergency laparoscopies were performed over a one-year period; 19 cases were for suspected ovarian torsion, 34 cases for ectopic pregnancy and 1 case each for abdominal pain and a haemorrhagic cyst.

The rate of negative laparoscopy for suspected ovarian torsion was 16%, with a complication rate of 11%. 63% of laparoscopies had operative findings that were incongruous with the suspected pathology; often patients were taken to theatre? ovarian torsion and were found to have other pathology. The most common alternative pathology was ruptured ovarian cysts.

The rate of negative laparoscopy for ectopic pregnancy was 6%, with a complication rate of 11%. 21% of laparoscopies where no ectopic was found where diagnosed with another pathology. There was one case of a falsely negative laparoscopy where the patient then later opted for medical management of an ectopic pregnancy.

The complication rates were higher than expected when compared to published RCOG consent guidance for diagnostic laparoscopy.

## **Conclusions**

From this study it appears that the negative laparoscopy rate for suspected ovarian torsion and ectopic pregnancy were 16% and 6% respectively. 63% of emergency laparoscopies taken to theatre? ovarian torsion had operative findings that were incongruous to the suspected pathology. This study suggests perhaps ovarian torsion is being over-diagnosed; the most common alternative operative finding being a ruptured ovarian cyst.

**ABST-0688 - VP153**

**ePoster and Video Presentations**

**A female pelvis huge malignant solitary fibrous tumour : the laparoscopic approach saved the patient's life after three failed radiological embolization trials !**

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### **Background**

Malignant presacral solitary fibrous tumour is a rare mesenchymal tumour characterized by the proliferation of malignant fibroblastic or myofibroblastic cells in soft connective tissue located in the presacral region.

### **Methods**

We report a rare embarrassing case.

### **Results**

We report the case of a 35-year-old woman who presented to the Emergency Department (ED) with pelvic pain, a pelvic tumour was suspected.

A CT scan was performed, describing a highly vascularized mass without any conclusion of its origin, and a pelvic MRI showed a retro-pelvic presacral tumour measuring 13cm without distant metastasis.

A CT guided biopsies made the histological diagnosis of a Solitary Fibrous Tumour.

A bibliographical search was carried out, but given the rarity of the case, no consensus was reached.

Embolization of the hypogastric arteries was indicated in front of such vascularized tumour.

After the failure of three embolization trials, we had the idea of laparoscopic internal iliac artery ligation and beginning tumourectomy with a laparoscopic approach.

the tumour was removed, the final pathology confirmed Malignant Solitary Fibrous Tumour.

A multidisciplinary consultation meeting was held, and radiotherapy and adjuvant chemotherapy were decided.

### **Conclusions**

The diagnosis of presacral Malignant Solitary Fibrous Tumour is often difficult due to its rarity and localization. It relies on a combination of medical imaging, including MRI, CT and bone scan, as well as biopsy to confirm the nature of the tumour.

Treatment of Malignant Presacral Solitary Fibrous Tumour relies on a multidisciplinary approach, which may include surgery, radiotherapy and chemotherapy. Surgical resection is often the first step in treatment, but the delicate location of the tumour can make surgery difficult.

It is important to follow patients with presacral malignant solitary fibrous tumours closely, as these tumours tend to recur even after complete treatment. Subsequent monitoring is based on regular clinical examinations and medical imaging.

<https://player.vimeo.com/video/952079497?autoplay=1>



**ABST-0690 - P126**

**ePoster and Video Presentations**

### **Ectopic endometriosis: A Case Series**

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#### **Background**

Ectopic endometriosis can be seeded during any operation that dissects the uterine cavity but can also occur spontaneously. The overall incidence is low, between 0.03% to 1.08%, however, with the increasing incidence of caesarean sections within both the UK and globally, we can expect see more presentations of the condition in our practice

#### **Methods**

The aim of this presentation is to increase clinicians' awareness of this condition in order to prevent delay in diagnosis and definitive surgical management. We present the case reports on the clinical symptoms, findings, and management of four premenopausal patients with abdominal wall endometriosis treated within one year at our unit.

#### **Results**

Clinical presentations in patients can vary and it is vital that clinicians consider ectopic endometriosis as a differential diagnosis for patients with symptoms after surgery.

In all cases, imaging was helpful in delineating the lesion. However, in cases of lesion recurrence, the area of excision was probably incomplete and as such margins of at least one centimetre are recommended.

#### **Conclusions**

Interestingly, none of these patients had deep infiltrating endometriosis and as such further research is required to determine if ectopic endometriosis can occur following surgery to remove extensive endometriosis.

**ABST-0695 - P342**

**ePoster and Video Presentations**

### **3mm For Benign Gynaecological Conditions – The Basingstoke 5 Year Experience.**

*Janani Karpagavalli Sankar<sup>1</sup>, Julia Mazurek<sup>1</sup>, Arcot Venkatasubramaniam<sup>1</sup>, George Goumalatsos<sup>1</sup>*  
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#### **Background**

The word "micro laparoscopy" refers to laparoscopic surgical procedures performed using <5mm trocars, except for umbilical access. The aim of this presentation is to explore the feasibility of micro laparoscopy in gynaecological surgery, focusing on instruments, surgical techniques, application and limits of this approach. We present our 5-year experience of using 3mm instruments using a compilation of elective and emergency cases including laparoscopic management of ectopic pregnancy, cystectomy, appendicectomy and excisions of different stages of endometriosis.

#### **Methods**

We use a consistent setup but adapt our instruments and energy devices according to the clinical situation.

#### **Results**

**Advantages:** The micro laparoscopic approach for benign gynaecological surgical procedures is feasible, safe, and effective. The advantages of micro laparoscopy are obvious: "nearly scarless" healing, virtually no risk of herniation, the possibility of fewer adhesions, and less postoperative pain and early post-operative recovery.

The "footprint" of the bottom edge of the 3-mm monopolar diathermy spatula can be as small as one mm. Dwell time is the length of time the active electrode is in contact with tissue. A shorter dwell time is necessary for safe, efficient cutting since a longer dwell time increases the degree of coagulation occurring with electrosurgery, which can increase the risk of lateral thermal spread. Quick, steady, repetitive movements of the active electrode against tissue under firm, medial traction ensures a short dwell time. The small size of the 3mm laparoscopic diathermy instruments allows for accurate dissection with minimal trauma to the surrounding tissues in cases of endometriotic nodules over or near the ureters or the rectum.

Despite the significantly smaller size of the 3mm laparoscopic instruments, there is no disadvantage on tissue handling and manipulation and grasping force.

**Disadvantages:** 3mm instruments are more difficult to maintain. The scopes tend to lose clarity after fewer sterilisation cycles than the 5 and 10mm scopes. In contrast to monopolar instruments, the bipolar forceps require longer activation times to achieve effective haemostasis. Their smaller jaw size makes coagulation of big pedicles challenging. Their acquisition expense is something many trusts may not wish to deal with.

#### **Conclusions**

**Conclusion:** Microlaparoscopy has nothing to be jealous of its bigger siblings when it comes to tissue handling, ease of access, diathermy and visuals. When the cases are appropriately selected, we have found that 3mm laparoscopic procedures are safe, efficient offering excellent cosmetic postoperative results, fully justifying their use.

**ABST-0696 - P343**

**ePoster and Video Presentations**

### **3mm Laparoscopic Butterfly Excision And Rectal Shave**

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#### **Background**

The laparoscopic management of severe endometriosis is well established. However, there is minimal evidence on the use of microlaparoscopy for the excision of severe endometriosis. At Basingstoke hospital we routinely use the 3mm instruments for the excision of mild, moderate and severe endometriosis. We present a case of excision of widespread pelvic endometriosis and rectal shave using the 3mm instruments

**INTRODUCTION:** A 24-year-old nulliparous woman was admitted to our hospital with pelvic pain and underwent laparoscopy which revealed extensive superficial endometriosis with thickened pelvic peritoneum, a right endometrioma, an endometriotic nodule over the right ureter and disease in the rectovaginal space. She had an excision of her right endometrioma. She was subsequently seen in the clinic as her pain persisted. She persistently declined hormonal treatment due to the fear of weight gain.

#### **Methods**

**INVESTIGATIONS:** An MRI postoperatively revealed a normal uterus with normal ovaries and no evidence of measurable plaque or deep infiltrating endometriosis.

#### **Results**

**SURGERY:** The patient had bowel preparation. A laparoscopy with a 5mm umbilical port and 3mm laparoscopic ports revealed widespread superficial endometriosis on both pelvic sidewalls and pouch of Douglas. The right ovary was stuck to the right pelvic sidewall. An endometriotic nodule was present at the level of the right uterosacral ligament over the right ureter. The vesicouterine space was clear. Both ovaries were mobilised and suspended to the anterior abdominal wall. The left pelvic sidewall was dissected, and ureterolysis was performed. During the dissection of the thickened endometriotic peritoneum a small serosal ureteric defect was caused and subsequently repaired with Vicryl 4/0. The pararectal space was opened. The dissection was continued on the right pelvic sidewall where the ureter was adherent to the peritoneum and was mobilised with the combination of irrigation and diathermy. The rectum was dissected of the vagina and was mobilised. The diseased peritoneum was shaved off the rectum with no damage to the bowel. The excised peritoneum was placed in a laparoscopic endobag and was removed through the umbilical incision. 6 months later the patient remains pain-free with an excellent quality of life.

#### **Conclusions**

**Conclusion:** This case highlights the advantages and disadvantages of microlaparoscopy in complex laparoscopic cases. The combination of 4K technology and the small size of the 3mm instruments allowed the dissection of the peritoneum accurately and with minimal trauma to the surrounding

tissues. Multidisciplinary approach allowed surgery completion without resorting to 5 or 10mm instruments. Microlaparoscopy is an efficient way of managing excision of endometriosis and rectal shave.

**ABST-0698 - VP154**

**ePoster and Video Presentations**

**Patients with perforated transverse vaginal septum can asymptomatic until adolescent. Treating the high perforated transverse vaginal septum by office hysteroscopy decreasing risk of trauma.**

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### **Background**

Transverse vaginal septum is a rare type of mullerian anomaly. Transverse vaginal septa (TVS) may be imperforate (61%) and presented with obstructed menstruation; or perforate (39%) presented with infertility and dyspareunia. Similarly, septa may be low, midvaginal or high in position.

### **Methods**

Clinical examination, ultrasound, and magnetic resonance imaging (MRI) are all used in diagnosis of TVS. Even with the transvaginal sonography, the diagnosis of perforated TVS is quite difficult especially in the absence of hematocolpos and hematometra. We report a rare case of symptomatic (dyspareunia), perforated high transverse septum in 25-year-old female presented with infertility for 2 years which was first suspected on transvaginal sonography with the finding of iso to hypoechoic flap like structure (9,6mm of thickness) posteroinferior to the cervix. Based on clinical history and transvaginal sonography findings, provisional diagnosis of perforated TVS was made.

### **Results**

Treatment involves surgical resection of the septum and anastomosis of the proximal and distal vagina. As in our patient, the location of septa was in high vagina, and thickness is <1cm office hysteroscopic approach was chosen for septal resection. Vaginal stenosis remains the most common post operative complication and can be avoided by and early initiation of vaginal intercourse which helps in reducing stenosis and scarring in the surgical site.

### **Conclusions**

Patients with perforated transverse vaginal septum can asymptomatic until adolescent or become sexually active and may only present with infertility. Surgical resection is the mainstay of treatment which depends upon the site and thickness of septa. Treating the high perforated transverse vaginal septum with the thickness less than <1cm by office hysteroscopy decreasing risk of trauma to adjacent structure and successfully achieving a reproductive outcomes.

<https://player.vimeo.com/video/952198145?autoplay=1>

**ABST-0704 - P348**

**ePoster and Video Presentations**

**Mad? Bad? Or good for patients? Challenges and lessons learned from setting up a same day discharge hysterectomy service in NHS Lanarkshire**

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**Background**

The benefits of Same Day Discharge Total Laparoscopic Hysterectomy (SDD TLH) are well established (Ward et al. & Korsholm et al.). These include early mobilisation, reduced pain scores, reduced risk of hospital acquired infection and thromboembolic events, reduced risk of cancellation due to bed pressures, increased theatre efficiency and utilisation. With this in mind a SDD TLH pathway was set up in NHS Lanarkshire (NHSL) with a pilot study undertaken. Several challenges presented during the planning and initiation of this pathway and lessons learned from this may benefit others aiming to establish a similar service in the future.

**Methods**

A core team of gynaecologists, anaesthetists, theatre and day-surgery staff, an Enhanced Recovery after Surgery (ERAS) nurse and theatre scheduler was formed. A consultation was undertaken with relevant stakeholders. Patient selection criteria was agreed, and 20 patients were identified for the pilot study. A Standard Operating Procedure and patient information leaflet were written. Patient data and satisfaction questionnaires were collected. The core team met at strategic points prior, during and following the pilot to identify challenges and initiate measures to overcome these.

**Results**

The pilot study population had a median age of 45 (range 27-51) and median BMI of 28 (range 20-33). Indications for surgery included dysfunctional uterine bleeding (77%) and chronic pelvic pain (13%). An 86% rate of SDD was achieved and only 1 patient required reassessment: for re-closure of a port site. Median pain score at discharge was 2 on a 0-10 scale (range 0-5) and at 24 hours, 3 (range 1-6).

Challenges included 1) *Patient selection*. Identifying suitable patients for SDD is crucial. This was achieved by developing clear selection criteria. Comprehensive review with detailed information on before, during and after surgery identified suitable candidates and alleviated patient anxiety. Expectations were addressed through pre-operative education and reassurance. Detailed instructions and contact information were crucial. 2) *Pain management*. Effective pain control is crucial post-surgery. Multi-modal pain management strategies were utilized; particularly through pre-medication, total intra-venous anaesthetic, and proactive post-operative analgesia and mobilisation with clear instructions on how to manage at home. 3) *Staff scepticism and anxiety*. Staff training was provided and seamless co-ordination among all staff with clear protocols including setting out roles and responsibilities with good support was key. Where possible staff changes within the teams were minimized. 4) *Complications*. Clear protocols for handling post-operative complications including emergency contact numbers and 'open access' to the gynaecology ward was provided.

## **Conclusions**

There are certain to be challenges in setting up a SDD TLH pathway but results from the pilot study run by NHSL demonstrate this is not only possible, but of significant benefit to both patients and gynaecological services.



**ABST-0707 - P127**

**ePoster and Video Presentations**

### **A 'benign' hysterectomy full of surprises**

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#### **Background**

66-year-old female listed for an elective total laparoscopic hysterectomy with bilateral salpingo-oophorectomy incomplete margins post LLETZ. Systemically well with BMI 34, she was listed as a routine day case procedure.

On entry into the umbilicus, 800 mls of unexplained and unexpected ascites was noted which led to the surprising diagnosis of not one, but two, primary malignancies.

#### **Methods**

Retrospective case report

#### **Results**

On inspection of the abdomen and pelvis, both ovaries appeared atrophic, the uterus nonsuspicious, 'inflamed' peritoneum with no masses and a healthy appendix. The planned TLH +BSO went without complication with the histology including abdominal washings upgraded to two week wait.

The case was reviewed in the Gynaecology Oncology MDT with histology. It showed a right primary ovarian borderline mucinous tumour with capsular rupture (FIGO 1C) with koilocytic change in ectocervix only. Washings negative.

Her CT CAP showed 'reaccumulation of ascites with upper para-aortic and central mesenteric lymphadenopathy'. Her Ca125 was marginally elevated at 94, with other tumour markers reassuring.

She underwent a PET scan to aid diagnosis, showing 'low-grade calcified mesenteric nodal mass which demonstrated desmoplastic reaction'. Further biochemical testing showed a hugely abnormal gastrin, chromogranin A and urine 5HIAA levels. Therefore, the diagnosis of another primary malignancy was made: a small bowel carcinoid tumour.

#### **Conclusions**

This case highlights that surgeons may encounter unexpected pathology during any laparoscopy even if deemed 'benign' or 'routine'. We should retain a high clinical suspicion when encountering unexpected and unexplained pathology as highlighted by this case of a rare neuroendocrine tumour in an asymptomatic patient.

**ABST-0710 - P192**

**ePoster and Video Presentations**

**The analysis for 6 cases of CAIS (Complete Androgen Insensitivity Syndrome) : localization of internal genitalia, laparoscopic technique of gonadectomy, and pathological findings of immature gonads.**

*Mari Kitade<sup>1</sup>, Shiori Takeuchi<sup>2</sup>, Keisuke Murakami<sup>2</sup>, Yu Kawasaki<sup>2</sup>, Yasuho Yanagihara<sup>2</sup>, Atsuo Itakura<sup>2</sup>*

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### **Background**

Complete Androgen Insensitivity Syndrome (CAIS) is caused by a gene mutation encoding the androgen receptor whose immature testes are at risk of becoming cancerous and are often removed after puberty. Localization of internal genitalia of AIS is intra-pelvis, intra-inguinal, and intra-labia, but it is often difficult to diagnose the localization of the lesion preoperatively.

### **Methods**

Here, for 6 cases of AIS performed by laparoscopic gonadectomy, whose internal genitalia existed in different areas. We are reporting on our findings to demonstrate the MRI diagnosis, the laparoscopic procedure, and the analysis of histological examination.

### **Results**

The median (range) age of initial diagnosis was 15.7 (12-24) years, and all patients had primary amenorrhea. The external genitalia were female in all cases, and the chromosome test was 46XY. Secondary sexual characteristics included vaginal cavity lengths of 4-7 cm each, pubic hair of Tanner stages I-III, and breasts varied from I to V. The gonads were depicted as low-signal, solid tumours on both T1-weighted and T2-weighted pelvic simple MRI, with one located in the inguinal region, one in the inguinal canal, and four in the abdominal cavity. The gonads were removed laparoscopically using a vessel sealing system after dissecting the surrounding tissues and ligating and cutting the feeding vessels. All patients underwent laparoscopic gonadectomy without complications, and oestrogen replacement therapy was continued postoperatively. The pathological findings included seminiferous tubules derived from Wolf's duct in 6 cases, testicular tissue in 4 cases, oviductal tissue derived from Muller's duct in 5 cases, scar-like uterus in 3 cases, and mixed adrenal remnant tissue in 2 cases, but no malignant findings were seen.

### **Conclusions**

MRI was useful in diagnosing the localization of the gonads in CAIS, and the gonads could be safely removed laparoscopically regardless of their localization. In addition, the immature gonads were composed of tissue derived from the Wolf and Muller ducts and adrenal glands.

**ABST-0716 - P128**

**ePoster and Video Presentations**

**A systematic review and meta-analysis of obstructed hemivagina and ipsilateral renal agenesis (OHVIRA) syndrome: clinical features, surgical options and reproductive potential**

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**Background**

Obstructed hemivagina and ipsilateral renal agenesis (OHVIRA) syndrome, also known as Herlyn-Werner-Wunderlich syndrome, is a rare urogenital malformation characterized by a triad of double uterus, obstructed hemivagina, and ipsilateral renal agenesis. We conducted a systematic review and meta-analysis to comprehensively analyse the diagnostic features, surgical approaches and reproductive outcomes in women with OHVIRA syndrome.

**Methods**

A systematic search of Scopus, PubMed/MEDLINE, EMBASE and Web of Science was conducted, according to PRISMA guidelines, from inception to December 30th, 2023. Inclusion criteria encompassed case series and case reviews clearly reporting surgical management of postmenarcheal patients with OHVIRA, published in English with at least two patients. The Joanna Briggs Institute checklists assessed study quality. Data were meta-analysed using R software.

**Results**

35 studies published between 1988 and 2022 were included, analysing 526 patients. The average age of symptom onset was 14.45 years (95% CI 13;15) and diagnosis occurred at an average of 16.36 years (95% CI 15.09;17.63). Abdominal pain (67%, 95% CI 54;77) and dysmenorrhea (64%, 95% CI 55;72) were the most common symptoms. Pelvic endometriosis was observed in 20% (95% CI 13;30) of patients, with a pooled prediction interval suggesting a potential association. Ultrasound (86%, 95% CI 76;92) was the primary imaging modality, followed by pelvic Magnetic Resonance Imaging (61%, 95% CI 46;74). Vaginal septum resection was the most prevalent surgical treatment, employed in 83% of cases (95% CI 75;89). However, hysteroscopic resection emerged as a more recent minimally invasive alternative, with the first included study describing its use in 2012. It was used in 78% of cases (95% CI 46;93). Hemihysterectomy, reserved for severe and complex cases or recurrent issues, was performed laparoscopically (14%, 95% CI 6;31) or via laparotomy (13%, 95% CI 7;23). Endometriosis treatment was the most frequent concomitant procedure (21%, 95% CI 13;34). Surgical success was high, with 89% of cases experiencing no complications (95% CI 82;93). The live birth rate was 73% (95% CI 59;83). However, limited long-term follow-up data represent a significant limitation.

## **Conclusions**

This is the first systematic review and meta-analysis which comprehensively examined the existing literature on OHVIRA syndrome. Early diagnosis and surgical intervention are crucial to improve long-term outcomes and prevent complications, such as endometriosis. Vaginal septum resection, particularly the minimally invasive hysteroscopic approach, seems to be a successful treatment method with high patient success rates and encouraging fertility potential. Further research with longer follow-up is necessary to comprehensively understand the long-term impact of OHVIRA and surgical management on patient well-being and reproductive health.

**Adenomyosis and Uterine dysmorphism: is there a correlation?**

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**Background**

The association between adenomyosis and uterine dysmorphism was rarely assessed. Existing data support the link between adenomyosis, infertility, and recurrent pregnancy loss (RPL). Moreover, previous studies have focused on the correlation between dysmorphic uteri and infertility and RPL. Adenomyosis may cause moderate or severe distortion of the triangular shape of the uterine cavity, reaching a dysmorphism as T or Y shaped uterine morphology. This correlation was never histologically confirmed.

**Methods**

We retrospectively reviewed our dataset of patients, and we selected women affected by long term infertility and/or RPL, with ultrasonographic criteria of adenomyosis, according to the MUSA consensus. All these patients underwent tridimensional ultrasound assessment and hysteroscopy. Patients diagnosed with uterine dysmorphism underwent metroplasty. All procedures were performed in a one-stop approach by an expert surgeon. In all patients, the uterine defect was corrected by performing lateral wall incision and fundal incision if needed, with removal of the redundant endomyometrial tissue. Specimens were sent for histopathological analysis.

**Results**

We found 13 women in which histology confirmed the presence of adenomyosis in the redundant endometrium from uterine metroplasty.

**Conclusions**

From our case series of dysmorphic uteri displaying concurrent ultrasound evidence of adenomyosis according to the MUSA consensus, we observed a histological confirmation of adenomyosis. Our findings suggest a correlation between adenomyosis and uterine dysmorphisms in patients with infertility and RPL, which could offer insights into the aetiology of this condition and pave the way for novel pharmacological and surgical treatments for affected individuals. Further studies are needed to confirm our data.

## ABST-0730 - P350

### ePoster and Video Presentations

#### A rare case of gynaecologic neuroendocrine neoplasm of uncertain origin.

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#### Background

Primary gynaecologic neuroendocrine neoplasms (NEN) account for <2% of female reproductive tumours. NEN are aggressive tumours from endocrine cells derived from the neuroectoderm, neural crest, and endoderm. They can arise from various sites within the female genital tract, including the cervix, endometrium, ovary, fallopian tube, vagina, and vulva. The updated World Health Organization (WHO) classification of gynaecologic NEN is based on the Ki-67 index, mitotic index, and tumour characteristics such as necrosis. Overall, NEN of the gynaecologic tract have high recurrence rates and a poor prognosis. Preoperative diagnosis is challenging as is their treatment. We report a case of small cell neuroendocrine carcinoma of the uterus but with uncertain origin.

#### Methods

A 29-year-old woman was referred to the Department of Obstetrics and Gynaecology at Policlinico Gemelli, Rome, Italy, due to the incidentally detection of a uterine mass. The patient was nulliparous, asymptomatic and she had good general health. She underwent a transvaginal ultrasound examination with an experienced gynaecologist which showed an enlarged uterus because of the presence of a myometrial subserosa-pedunculated lesion, arising from the left lateral wall of the uterus, of 86x69x94 mm in size, with an inhomogeneous echo structure with a convoluted appearance and “cocked” aspect, poorly vascularized at colour Doppler examination. The endometrium had a thickness of 6 mm and a three-layer pattern, with an endometrial-myometrial junction regular. Both ovaries were regular. Free fluid in the pouch of Douglas was 40 mm.

A laparoscopy was performed: a pedunculated myometrial lesion of 9 cm in size originating from the uterine fundus and developing into the left mesosalpinx was detected. Surgery was completed with a mini-laparotomic myomectomy.

#### Results

Microscopic examination demonstrates a high-grade epitheliomorphic neoplasia, with extensive areas of necrosis and a mitotic index greater than 10 mitoses/HPF. Furthermore, multinucleated cells with expanded eosinophilic cytoplasm and sometimes rhabdoid morphology were found. The neoplasm was positive for AE1/AE3 (dot-like staining), CAM5.2 (dot-like staining), Chromogranin A, Synaptophysin. Immunohistochemical analysis of mismatch repair (MMR) protein expression showed

MSH6 with sub-clonal loss, PSM2- (unstable immunophenotype/dMMR) and p53 overexpressed with aberrant immunophenotype. Final histology was suggestive for poorly differentiated carcinoma consistent with small cell neuroendocrine carcinoma according to WHO Classification system 2022 e 2020. The immunohistochemical analysis suggested endometrial origin, however the ultrasound and intraoperative evaluation suggested myometrial origin. Counselling with the patient is ongoing to define the future clinical management (possible radical surgery).

### **Conclusions**

To our knowledge this is a challenging case of small cell neuroendocrine carcinoma of the uterus of uncertain origin in a young asymptomatic woman. To date no case of NEN arising from myometrium are available in literature. In our opinion clinicians and pathologists must support further research to better study primary gynaecologic NEN.

**ABST-0731 - P351**

**ePoster and Video Presentations**

**Laparotomic myomectomy with preventive bilateral uterine artery ligation: Doppler evaluation of early uterine reperfusion.**

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**Background**

The primary endpoint of our study was to evaluate early uterine reperfusion after uterine artery ligation (UAL) during laparotomic myomectomy (LM). The secondary endpoints are the assessment of its safety in terms of clinical and laboratory parameters, and the reproductive outcome after the procedure.

**Methods**

This is a retrospective study included patients undergoing laparotomic myomectomy with preventive UAL between February 2019 and December 2021. The study was approved by the Institutional Review Board. About 48 hours after surgery, all patients underwent transvaginal ultrasonography in order to evaluate Doppler parameters such as pulsatility index (PI) and resistance index (RI) of both uterine arteries. The results were compared to 27 cases of women who underwent laparotomic myomectomy without UAL in the same period. In the following months, details related to menstrual cycle and pregnancies were collected through questionnaires and phone calls.

**Results**

Twenty-five women (median age 40 years, range 29-50 years) with preventive UAL were included in the analysis. In these patients, after 48 hours from surgery, arterial flow was adequate in 49 cases (98 %). Median PI index was 1.11 in left uterine artery and 1.05 in the right one; while median RI was 0.64 in both. Mean PI and RI index of the two arteries were 1.19 and 0.65 respectively. The median intraoperative bleeding was 100 ml (range 50-1500 ml) and only one patient (4.5%) had an intraoperative haemorrhage that required blood transfusions. Two postoperative complications occurred: an abdominal wall hematoma and a severe adhesion syndrome. During the following months, all patients were reported regular menstrual cycles with adequate menstrual bleeding. One of the two women seeking a pregnancy succeeded, without obstetrical complications.

**Conclusions**

In this cohort of women, we did not find any abnormality in early uterine revascularization and flow indices after UAL. Hence, this surgical procedure during open myomectomy appears to be feasible and safe in order to minimize intraoperative bleeding and perioperative morbidity.



**ABST-0735 - P196**

**ePoster and Video Presentations**

**Struma ovarii with foci of follicular variant of papillary thyroid carcinoma.**

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**Background**

Struma ovarii (SO) is a highly differentiated monodermal tumour characterized by the presence of more than 50% thyroid tissue, accounting for 2-3% of ovarian teratomas. Malignant transformation and metastasis are rare (~5%). Similar to thyroid carcinomas, the most common subtypes of malignant SO (MSO) are papillary (70%) and follicular (30%) thyroid carcinoma. Although the main treatment is surgery, there are no clear guidelines about the extent of surgery, the need for total thyroidectomy and adjuvant therapies such as radioactive iodine I-131 ablation and levothyroxine therapy.

**Methods**

We present a case of a 31-year-old patient referred to our Department because of abdominal bloating. Transvaginal ultrasound examination showed a right multilocular solid mass of 150x89x116 mm, made up by 3 portions: a solid component of 82x66x80 mm, with cystic areas with a "low-level" content, Colour Score 3; a unilocular component of 100x99x117 mm, with "low-level" content and irregular internal walls, Colour Score 1; a unilocular portion, of 54x36x33 mm, with regular walls and mixed content, Colour Score 1. No ascites and no suspicious abdominal lesions were found. Oncological markers were negative (CA 125 36 mU/ml, CA 19.9 2U/ml).

**Results**

A laparotomic right oophorectomy with right ovarian fossa peritonectomy, multiple peritoneal biopsies and peritoneal washing were performed. There was no evidence of extra-ovarian involvement. Final histology report was positive for SO with foci of papillary thyroid carcinoma, follicular variant, stage IA.

**Conclusions**

In conclusion, there are no published papers on the ultrasound features of MSO, but the accuracy of the preoperative diagnosis provides the appropriate treatment plan.

**ABST-0737 - P197**

**ePoster and Video Presentations**

**Rhabdoid tumour of the ovary: clinical and ultrasound characteristics of five cases of small cell carcinoma hypercalcaemic type (SCCOHT)**

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**Background**

to describe clinical and ultrasonographic characteristics of Small Cell Carcinoma of the Ovary hypercalcaemic type (SCCOHT) also known as the malignant rhabdoid tumour of the ovary.

**Methods**

this was a retrospective study involving four ultrasound centres (Forlì, Leuven, Pamplona and Rome). Five patients (1 from International Ovarian Tumour Analysis-IOTA-database, and 4 from the databases of the departments of gynaecological oncology) who underwent preoperative ultrasound examination by an experienced ultrasound examiner between 2020 and 2023 were identified with a histologically confirmed SCCOHT. The ultrasound images of all tumours were assessed using IOTA terminology. Clinical and ultrasound characteristics were reported.

**Results**

median age was 29 years old (range 19-37). All patients but one were nulliparous. 4/5 patients presented with abdominal pain, 1/5 with amenorrhea. CA-125 was elevated in 3 patients (maximum value 152 U/mL). 4/5 lesions were unilateral. The median largest diameter of the lesion was 108 (range,57-195) mm. 5/5 tumours were completely solid, with inhomogeneous echo structure and no shadows. The revision of the ultrasound images revealed the presence of a "sarcoma like" echo structure, and the presence of a cystic irregular area in 3/5 patients. Preoperative calcium levels were not available. Genetic analysis for SMARCA4 (other abbreviation than above?) was obtained in 4 patients and resulted positive in three cases.

**Conclusions**

this is the first study describing the ultrasonographic appearance of SCCOHT, a rare malignancy affecting young women with poor prognosis. In this case series the tumour appeared as solid with a median diameter of 108 mm. A sarcoma-like echo structure with no shadows was observed in the ultrasonographic images.

**ABST-0743 - P129**

**ePoster and Video Presentations**

### **Effect of the endometriosis hormonal treatment on headache**

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#### **Background**

Migraine is a chronic disorder consisting in recurrent episodes of moderate to severe headache of 4-72 hours, often unilateral and generally associated to nausea, fatigue and increased sensitivity to light and sound. It shares similarities with endometriosis, as they both present pain as the main symptom, by being related to a diagnostic delay and by having similar pathogenetic mechanisms involving chronic inflammation and hormonal influence. Frequently these two disorders co-exist, and it has been suggested that medical therapies used to treat endometriosis could influence the severity of headaches.

#### **Methods**

This is a descriptive study including 138 women with endometriosis that attended the endometriosis unit of a tertiary hospital in Barcelona between September 2023 and December 2023. Consecutive women with the diagnosis of endometriosis that attended the clinic were administered a questionnaire with questions on headache including the severity, related symptoms and relation to hormonal therapy.

#### **Results**

Mean age of the women included was 38,1 years (SD 7.3). A total of 123/138 patients (89.1%) admitted having at least an episode of headache in the last 3 months, being in 60/138 (43.5%) suggestive of migraine.

The headache episodes took place a mean of 5.4 days per month (SD 6.6), being the attacks disabling in 25.4% of the patients. The episodes lasted more than 3 hours in 58.6% of the patients, associating a moderate-severe intensity or the need of painkillers in 84.4% and 85.9% of them, respectively.

Hormonal therapies were used in 105/138 patients (76%), being the oral combined contraceptives, the continuous progestins and the hormonal intrauterine device, the therapies more used (34.3%, 19.4% and 12.7%, respectively). In 18.3% of the cases, women admitted that headache improved with hormonal treatment, while in 61.3% of the patients the headache episodes did not seem to be influenced by the hormonal therapy.

#### **Conclusions**

The current data is in line with the suggestion of a high occurrence of migraine in patients with endometriosis. The hormonal treatment seems to improve or at least not worsen the headache episodes in 79.6% of the patients. The present results help clinicians in order to give better advice to women with endometriosis that are subsequently diagnosed with migraines

**ABST-0746 - VP161**

**ePoster and Video Presentations**

**Indications and techniques for laparoscopic sentinel lymph node mapping and para-aortic lymphadenectomy in gynaecologic oncology**

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**Background**

Sentinel lymph node dissection is one of the most important surgical procedures in gynaecologic oncology practice. Early-stage uterine cancer is managed via laparoscopic total hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy. The incidence of metastatic nodes is rare, and systematic lymphadenectomy may lead to some complications. Sentinel lymph node dissection can prevent a complete dissection. Herein, this surgical video aims to demonstrate sentinel lymph node dissection using indocyanine green.

**Methods**

A step-by-step explanation of the procedure using a video.

**Results**

This is the case of a 55-year-old woman who presented with postmenopausal bleeding. Endometrial biopsy was performed, and pathology revealed FIGO grade 1 endometrioid endometrial adenocarcinoma. Pelvic magnetic resonance imaging also confirmed 34–24 mm of endometrial mass. There was no suspicious lesion for metastasis, and laparoscopic surgery was planned. Laparoscopic hysterectomy, bilateral salpingooferectiony, and sentinel pelvic lymph node dissection were carried out in the unit of gynaecological oncology at Azerbaijan Medical University. Major landmarks for laparoscopic sentinel pelvic lymphadenectomy were reviewed in this surgical video.

**Conclusions**

Based on the results of our practice, SLND was considered an informative and useful procedure for endometrial carcinomas detected at an early stage. Also, SLD reduces the risk of reoperation and plays an important role in the early onset of adjuvant treatment. Currently, we routinely perform laparoscopic sentinel lymph dissection in selected patients.

<https://player.vimeo.com/video/960294103?autoplay=1>

**ABST-0749 - P354**

**ePoster and Video Presentations**

**Must intraoperative consultation in endometrial pathology be used as a predictor to plan the extent of surgery?**

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**Aim**

we aimed to reveal whether or not a preoperative diagnosis of endometrial hyperplasia necessitates frozen section consultation.

**Background**

The purpose of this study was to investigate the frequency of endometrial cancer and the accuracy of frozen section analysis during hysterectomy.

**Materials / Patients**

Clinicopathological data were obtained from patient files and hospital information systems to identify patients who were subjected to hysterectomy with a preoperative diagnosis of endometrial hyperplasia.

**Methods / Results**

The study group included 189 cases. The final pathological examination revealed endometrial cancer in 16 women (8.4%). The risk of cancer in patients with endometrial hyperplasia was 1 in 125 (0.8%) in simple hyperplasia without atypia, 1 in 21 (4.8%) in complex hyperplasia without atypia, and 14 in 43 (32.5%) in atypical hyperplasia. Of women with cancer, 2 of 16 (12.5%) had high-risk features. Frozen section analysis was requested in 46 cases. Frozen sections helped to identify six out of 11 cases of endometrial cancer (54.5%). The sensitivity, specificity, and positive and negative predictive values of frozen section analysis for the detection of endometrial cancer among women with endometrial hyperplasia were 54.4%, 97.2%, 85.7%, and 87.5%, respectively.

**Discussion**

Most patients with atypical endometrial hyperplasia have low-risk features and do not require surgical staging.

**Conclusion**

it seems that patients with endometrial hyperplasia can be operated upon in clinics with no available method for obtaining frozen sections intraoperatively.

**Impact to Patients' Health**

it seems that patients with endometrial hyperplasia can be operated upon in clinics with no available method for obtaining frozen sections intraoperatively.

**ABST-0752 - VP163**

**ePoster and Video Presentations**

**Surgical approach to early-stage upper vaginal squamous cell carcinoma: Volume-outcome relationship in the early experience period**

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**Background**

To demonstrate radical hysterectomy, colpectomy, and bilateral pelvic lymph node dissection for upper vaginal cancer. The creation of the potential avascular spaces facilitates parametrectomy. Therefore, this surgical video aims to show anatomical landmarks of radical hysterectomy.

**Methods**

A step-by-step explanation of the procedure using a video.

**Results**

This is the case of a 46-year-old woman presented with abnormal uterine bleeding. A vaginal biopsy was performed, and pathology revealed vaginal squamous cell carcinoma. Pelvic magnetic resonance imaging also confirmed a 31x28 mm upper vaginal mass. There was no suspicious lesion for distant metastasis and surgical intervention was planned. Radical hysterectomy, colpectomy, and bilateral pelvic lymph node dissection were carried out in the Department of Oncology, at Azerbaijan Medical University. The anatomical landmarks of the mentioned procedures were reviewed in this surgical video.

**Conclusions**

Safe, efficient, and effective surgery should be done by laparotomy. Therefore, we prefer the open technique and believe that oncological outcomes may improve due to the laparotomic approach.

<https://player.vimeo.com/video/960333478?autoplay=1>

**ABST-0753 - VP164**

**ePoster and Video Presentations**

**Unusual sites of gynaecologic cancer metastasis: unexpected clinical cases**

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**Background**

The purpose of this article is to illustrate the serious atypical metastatic sites associated with gynaecologic cancer. Atypical sites include extra-abdominal lymph nodes, liver, adrenals, brain, bones, and soft tissue. Gynaecologists need to recognize the typical and atypical sites of metastases in patients with gynaecologic cancer to facilitate earlier diagnosis and treatment. Therefore, these surgical videos aim to demonstrate uncommon metastasis in four patients diagnosed with gynaecological cancer.

**Methods**

An explanation of the surgical procedures that were performed on the patients with atypical metastatic sites using these videos.

**Results**

The article provides information about the authors' clinical observation of four patients diagnosed with uncommon metastasis from gynaecological cancer. One of them is the case of a 64 -year-old woman who has high hypermetabolic malignant tumour of the anterior abdominal wall after laparoscopic surgery. Port-site metastasectomy and hernioplasty with mesh were carried out in the Department of Oncology, Azerbaijan Medical University. Pathological examination of the material revealed a high-grade malign tumour with a negative surgical margin. The postoperative period was uneventful. Detailed information about the second, third, and fourth patients will be explained during the conference.

**Conclusions**

First case demonstrates that PSM is an uncommon complication of laparoscopy in gynaecologic oncology. PSM is associated with wound events and a poor prognosis. PSM prevention plays a crucial part in the overall care of patients with gynaecologic malignancies who undergo laparoscopic procedures.

<https://player.vimeo.com/video/960337980?autoplay=1>

**ABST-0755 - P355**

**ePoster and Video Presentations**

**Lower abdominal textiloma may mimic an ovarian malignant tumour. Our experience**

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**Background**

The article describes the authors' clinical observations of patients manifested with malignant tumours of the female genital organs and who were diagnosed with gossypiboma during surgery. Gossypiboma is a serious and potentially dangerous medico-legal problem.

**Methods**

Demonstration of the radiological and surgical photos recorded during procedures of the mentioned clinical events.

**Results**

We will present five cases of lower abdominal gossypiboma that presented as an ovarian malignant tumour. The cut section confirmed the gossypiboma diagnosis. All of them will be shown during the conference.

**Conclusions**

In gynaecological surgery, surgical tampons are rarely forgotten in the abdominal cavity. Based on their observations of patients, the authors concluded that in some cases manifest themselves as gynaecological cancers, and in such cases, it is sometimes impossible to make an accurate diagnosis in the preoperative laboratory, instrumental, and radiological examinations. The authors recommend appropriate examination to rule out the diagnosis of gossypiboma in patients with a history of abdominal surgery when radiological examinations reveal tumours with correct contours and heterogeneous structure.



**ABST-0757 - VP166**

**ePoster and Video Presentations**

## **Surgical Management of Endometriosis affecting the urinary tract: A video case series of surgical approaches**

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### **Background**

We present a novel approach combining cystoscopy and laparoscopy for the excision of bladder endometriosis. Bladder endometriosis is rare with only 0.3-12% of women with endometriosis having disease affecting the urinary tract. However, in 12-40% women with deep infiltrating endometriosis you have disease affecting the urinary tract. Surgical approach to disease affecting the urinary tract needs a multi-disciplinary approach, surgical planning and joint surgery with adjuncts such as ureteric stents to minimise complications and ensure successful resection.

Joint surgeries reduce risk to patients and improve patient outcomes. Surgical planning is key to tackling complex disease. It is also important to counsel the patient adequately of the long-term complications and side effects of excising disease from the bladder and urinary tract. The pre-operative workup for the patient alongside surgical planning helps ensure that you are able to achieve a more complete excision of deep infiltrating disease.

### **Methods**

We present a novel approach for excision of bladder endometriosis. This involves joint surgery with Urology surgeons commencing with cystoscopy first to map bladder disease and use energy to demarcate bladder lesions after ureteric stenting. The vesico-ureteric junction is identified, and demarcations are made to ensure this isn't disrupted at the time of laparoscopic excision. This is subsequently followed by laparoscopic approach where the demarcated lesions on the bladder are then excised under vision.

### **Results**

We present a video demonstrating this novel technique whilst also showing the key steps taken in demarcating lesions as well as excision, repair and post-operative management. This method has been successful in minimising excision of healthy detrusor muscle and complications to the bladder and has also been adopted in further cases, It ensures that the bladder capacity and function is preserved and there is economy in the excision of the bladder lesions.

### **Conclusions**

Bladder endometriosis although rare can pose a significant surgical challenge. It is important that adequate imaging and surgical planning takes place before the day of surgery. Improvement in patient outcomes is associated with increased multi-disciplinary meetings as well as joint surgeries with Urology surgeons. The combined approach with cystoscopy prior to laparoscopy ensures a targeted approach to bladder disease and also ensures minimal detrusor muscle is taken whilst ensuring complete excision of endometriosis. Although patients will have likely detrusor muscle

dysfunction, this can be minimised with our approach as well as maintaining bladder capacity in younger women.

**ABST-0764 - VP167**

**ePoster and Video Presentations**

**A Case of Complete Intrauterine Septum Radically Managed by Combined Hysteroscopic and Laparoscopic Approach with long-term outcome followed by full-term pregnancy**

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**Background**

A complete uterine septum is one of rare congenital genital tract anomaly. The incidence of congenital uterine anomalies in the general population is estimated to be 0.001%- 10% (Louden et al., 2015). Affected women often complain of dyspareunia and might experience infertility, recurrent miscarriages, and obstetric complications. The diagnosis is based on the combination of different diagnostic techniques and multiple treatment steps. Currently, magnetic resonance, ultrasound x-ray hysterosalpingography are often used to obtain a diagnosis.

**Objective:**

To propose a combined diagnosis with an ultrasound and x-ray hysterosalpingography, combined with minimal invasive approach treatment of complete uterine septum, and evaluate the effectiveness of treatment by long-term outcome followed by full-term pregnancy

**Methods**

Stepwise demonstration with narrated video footage of an integrated approach management of a complete uterine septum by combining minimally invasive hysteroscopy and laparoscopy. The patient was 26 years old and was referred to our clinic because of dyspareunia, infertility.

**Results**

A one-stop complete evaluation of uterine cavity, external profile, cervix, and vagina was made through 2D, and 3D ultrasound and confirmed during x-ray hysterosalpingography, and a U2b malformation (according to ESHRE/ESGE classification) was diagnosed. The hysteroscopy showed the presence of a complete intrauterine septum and the presence of two uterine hemi-cavities. No communication between the two hemi-cavities was observed.

The procedure consisted in a totally endoscopic removal of the complete uterine septum, starting the uterine septum incision from the isthmic level until tube angles. Then diagnostic laparoscopy and chromosalpingoscopy was provide.

**Main outcomes:**

Surgical time of procedure was 45 minutes; no complications occurred. The ultrasound and x-ray control after 35 days showed a normal uterine cavity.

After three months, a normal pregnancy occurred. At 37weeks healthy baby weighing 2900 grams and measuring 50 centimetres was delivered by caesarean section.

**Conclusions**

Correct diagnosis of congenital Mullerian anomalies is very important for choosing the patients needing surgical treatment. An integrated hysteroscopic approach with laparoscopic control is one of safety totally endoscopic treatment option for congenital malformations with optimal surgical results and long-term outcome followed by full-term pregnancy. Further studies are needed to standardise the technique and to evaluate the potential fertility and obstetric outcomes of these patients.

<https://player.vimeo.com/video/968600474?autoplay=1>

**ABST-0765 - P131**

**ePoster and Video Presentations**

### **Prediction of histological pregnancy outcomes based on laboratory markers of reproductive losses**

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*Department of Obstetrics Gynecology and Perinatology of the N J S C «Karaganda Medical University»  
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#### **Background**

evaluate the relationship of prognostic laboratory markers of habitual miscarriage with histological pregnancy outcomes.

#### **Methods**

A retrospective study was conducted with an analysis of the histological outcomes of pregnancy, and their relationship with the main prognostic laboratory markers. The study included 56 women of reproductive age who sought medical help in a hospital due to reproductive loss up to 12 weeks of pregnancy with a history of two or more adverse pregnancy outcomes. A structural assessment of histomorphological products of conception was carried out, after which a comparative analysis was carried out with the laboratory parameters most often used in the prediction of reproductive losses (RL) such as fibrinogen, leukocytes, interleukin-6 (IL-6), platelets, thrombomodulin (TM), plasminogen activator inhibitor (PAI-1). Statistical analysis was carried out using MS Excel and Statistica StatSoft programs (trial version). Before the statistical analysis, the significance level  $p = 0.05$  was established. The distribution of the studied indicators was evaluated using the Shapiro-Wilk criterion. Quantitative indicators such as age, BMI and number of pregnancies were described in each study group using median (Me), upper and lower quartiles (Q1 and Q3). A comparative analysis of these indicators was carried out using the nonparametric Mann-Whitney U-test.

#### **Results**

Histomorphological studies of the products of conception made it possible to structure the detected changes into inflammatory (n- 37) and haemorrhagic (n- 21). Inflammatory changes were mainly manifested by leukocyte infiltration and purulent-necrotic processes (diffuse purulent-necrotic chorioamnionitis, serous-purulent deciduitis, necrotic deciduitis.) With coagulopathic changes, circulatory disorders and hypoxic lesions prevailed (acute circulatory disorder in decidual tissue, immaturity of villi, villi dystrophy, hypoxic damage to decidual tissue, hydropic dystrophy nap). In our study, we found a statistically significant difference between the group of inflammatory changes compared with the group of coagulopathic changes. Thus, the quartile ranges of IL - 6 were, respectively, 5,730- 8,840 ng/mL and 3,540-6,910 ng/mL, which can serve as a prerequisite for the formation of reference values for predicting inflammatory factors at the pre-gravidar stage. Significant statistical differences in the TM index were also obtained. Thus, the quartile ranges of the group of inflammatory changes were 5,430-6,510 ng/mL and 7,120-9,030 ng/mL in the group of coagulopathic changes, which shows a significant correlation between laboratory markers of analysis and the results of histological studies in the form of haemorrhagic changes. Other laboratory parameters had no statistically significant differences.

#### **Conclusions**

According to the study, the main causes of RL are inflammatory and haemorrhagic disorders. As the most significant prognostic laboratory criteria, as a result of the study, IL-6 can be identified as a predisposing factor to the presence of inflammatory causes of RL, and thrombomodulin as the "gold standard" for identifying coagulation and haemorrhagic causes of miscarriage.

**ABST-0766 - P132**

**ePoster and Video Presentations**

**The influence of socio-clinical factors on the development of reproductive losses in early pregnancy in the population of women of the Republic of Kazakhstan**

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**Background**

determine the influence of socio-clinical factors on the occurrence of reproductive losses in the early trimester of pregnancy.

**Methods**

We conducted a study at the clinical bases of the NAO "Medical University of Karaganda", in the period from May 2022 to October 2023. 88 women of reproductive age were included in the study. The women were divided into 2 groups. The main group consisted of 58 women of reproductive age who sought medical help due to reproductive loss before 13 weeks of pregnancy and with a history of two or more adverse pregnancy outcomes. The control group consisted of 30 women of reproductive age with no history of adverse pregnancy outcomes. A questionnaire was conducted where socio-clinical factors were assessed - smoking, working conditions, age, number of pregnancies in the anamnesis, BMI. Statistical analysis was carried out using MS Excel and Statistica StatSoft programs (trial version). Before the statistical analysis, the significance level  $p = 0.05$  was established. The distribution of the studied indicators was evaluated using the Shapiro-Wilk criterion. Quantitative indicators such as age, BMI and number of pregnancies were described in each study group using median (Me), upper and lower quartiles (Q1 and Q3). A comparative analysis of these indicators was carried out using the nonparametric Mann-Whitney U-test. Qualitative indicators were studied using the Chi-square criterion and the Fisher criterion. The ratio of the chances of developing RL was also calculated using the studied parameters.

**Results**

The main group included older women with more pregnancies and higher BMI. The median "age" in the main group was 31.5 years, while in the control group it was 25 years. The quartile range (Q1-Q3) in the main group was 24-37 years, in the control group – 21-28 years. The median "BMI" in the main group was 24.6, while in the control group it was 21.99. The quartile range (Q1-Q3) in the main group was 22.15-29.31, and in the control group – 21.3- 23.2. Indicating that the risks of developing RP may be more likely to be observed in women with a large number of pregnancies in the anamnesis, with already known facts of reproductive failures, at the age of 24-37 years, and BMI values of 22.15-29.31. Qualitative criteria have shown that in almost 21% of cases, women who smoke can have RP, and in women working in heavy industries, the probability of developing pregnancy loss in early pregnancy is the highest and is about 35%.

**Conclusions**

The main socio-clinical factors of reproductive failures in the early trimester of pregnancy in our region can be considered the age of a woman over 31 years old, smoking, difficult working conditions, and overweight.



**Surgical treatment of Ashermans syndrome. Recovery paths. The effect on fertility.**

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**Background**

To date, Ascherman syndrome occupies a key place in gynaecological practice, as it is one of the causes leading to female infertility, uterine genesis (24-66%). At the same time, there is a golden method of surgical treatment of Ascherman syndrome, but the recurrence rate is high, according to various literature data, it varies from (43-55%).

**Methods**

To determine the optimal choice of treatment for Ascherman syndrome and to assess reproductive functions, a survey of all previously operated women was used, as well as repeated Second Look hysteroscopy to determine the effectiveness of a particular method of surgical intrauterine adhesiolysis with determination of further fertility. In this thesis, materials are presented and studied by early and long-term interview of women who underwent surgical surgery for surgical intrauterine adhesiolysis, according to a pre-compiled questionnaire.

**Results**

In 2023, the GynTeam team operated on 18 women for grade 2-4 Ascherman syndrome. Age (19 – 46 years old). Of these: ➤ Adhesion by mechanical means – 17 patients ➤ Electrosurgically – 1 patient • Under laparoscopy control – 2 patients • Under ultrasound control - 16 patients ➤ After adhesiolysis, a balloon catheter was left in the uterine cavity for 10 days. ➤ A gel with hyaluronic acid was injected into nine patients. ➤ Three patients were fitted with a T-shaped spiral for 2 months. Repeated hysteroscopy (Second Look) was performed in 6-8 weeks in 15 patients. Relapse only in 1 case, in a patient with an abandoned intrauterine balloon catheter.

**Conclusions**

Thus, taking into account the literature and personal data, it can be concluded that mechanical adhesiolysis by hysteroscopic means is the most effective and safe method of surgical treatment under ultrasound or laparoscopic control. Of particular importance is the method of choosing postoperative relapse prevention and endometrial restoration. As for fertility after surgical adhesiolysis, out of 18 operated patients in 2023 with Ascherman syndrome. Childbirth – 3 (16.6%). Pregnancy to date is 1 (5.5%). Pregnancy is planned – 2 (11%). 12 (66%) refused reproductive plans. Based on world sources and personal data, it is safe to say that with Ascherman syndrome 2-3 ct, there are very good fertility rates, with an adequate choice of postoperative relapse prevention.

**ABST-0768 - VP168**

**ePoster and Video Presentations**

**Incision of the intrauterine incomplete septum, hysteroscopy, IVF after a year, birth of full-term twins**

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**Background**

A 26-year-old female patient with a history of two pregnancy losses at 10 and 16 weeks was found to have a bicornuate uterus with an incomplete septum during hysterosalpingography. Considering her history of pregnancy loss, a decision was made to remove the septum using hysteroscopic resection.

**Methods**

During the surgery, the uterine cavity was found to be divided into two-thirds by an intrauterine fibrous septum. The septum was dissected using a bipolar hysteroscope, cutting from right to left and left to right. Forward and backward movements were avoided to prevent accidental injury to the uterine wall. The uterine cavity was expanded by the pressure created by the fluid inside the uterus. The septum was removed with the loop of the hysteroscope, resulting in a well-shaped uterine cavity. The area where the septum was removed would later be covered by endometrial growth.

Hysteroscopic resection of the intrauterine septum was performed under general anaesthesia using a special bipolar system by Karl Storz, with saline solution as the distending medium to avoid potential hyponatremia. The power of the current ranged from 50 to 200 Watts. The working instrument had three types of electrode configurations: screw-like (for tissue ablation), needle-like (for cutting), and ball-shaped (for precise and rapid tissue ablation).

**Results**

Hysteroscopic resection of the intrauterine septum not only eliminates the adverse conditions for implantation but also improves the function of the endometrium, which becomes possible due to the revascularization of the connective tissue in the uterine fundus.

**Conclusions**

A year later, the patient remarried. Due to the male factor infertility of her new spouse, IVF was planned. The patient conceived twins on the first attempt, as desired. At 12 weeks of pregnancy, due to cervical insufficiency, a cerclage was placed on her cervix. At 38 weeks, due to the transverse position of the fetuses, a caesarean section was performed, resulting in the birth of two babies weighing 2740 g and 2930 g, with Apgar scores of 8/9.

<https://player.vimeo.com/video/968674475?autoplay=1>

**Retropubic abscess and phlegmon of the low anterior and lateral abdominal walls after TVT**

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**Background**

Insertion of vaginal tapes is the most common surgical procedure used to treat female stress urinary incontinence (SUI). However, these operations are associated with rare but severe complications including tissues erosion and infection due to the fact that synthetic material are implied and the host response in certain cases can be unpredictable.

**Methods**

54 years old postmenopausal female with diabetes mellitus using oral medication by the time of initial surgery underwent total laparoscopic hysterectomy with bilateral adnexectomy along with high uterosacral ligaments suspension and retropubic placement of suburethral sling (TVT). She returned to our department two months later with inguinal pain, weakness, fever, tachycardia, leukocytosis and elevated inflammatory markers (CRP was 183,24 mg/l). Lack of blood sugar regulation and inadequate wound care was confessed. The lower parts of her abdomen were swollen and hyperemic with boils in pubic area (fig. 1), palpation in these regions was extra painful. MR imaging revealed a 50x35 mm compacted solid formation (abscess) between the urinary bladder and the pubic bone and dense infiltrative process in the lower anterior and both lateral walls of the abdomen, spreading into the groin and perineum.

**Results**

**Steps of surgery**

Several incisions were performed under general anaesthesia to drain the purulent content (Fig 2).

The sling was removed completely through vagina by opening of initial sub urethral incision. (Fig 3)

After the operation, combined antibiotic therapy was applied and the endocrinologist corrected the blood sugar level by shifting to insulin. The wounds were healed within consequent 30 days, but recurrence of incontinence was noted.

**Conclusions**

Sub-urethral sling procedures using synthetic meshes are still considered the gold standard for the surgical management of stress urinary incontinence with estimated cure/dry rates ranging from 81–84%. It is very important to clarify contraindications to the placement of tapes for this purpose. Identification of the group of patients whom the surgery is not absolutely contraindicated

but can require certain cautiousness is of equal significance. Awareness of such complications like the one described in our case could help with proper patient counselling and postoperative follow up.

**ABST-0774 - P358**

**ePoster and Video Presentations**

### **Neovagina creation by Davydov technique in patients with Mayer Rokitansky Kuster Hauser Syndrome**

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*<sup>2</sup>Academy of Health, Department of Gynecology, Almaty, Kazakhstan*

#### **Background**

**Background:** This study aimed to evaluate the anatomical and functional outcomes (sexual satisfaction and psychosomatic outcomes), rate of lower urinary tract symptoms after the Davydov's laparoscopic neo-vaginoplasty in patients with Mayer- Rokitansky-Küster-Hauser (MRKH) syndrome.

#### **Methods**

**Methods:** Eight patients with Mayer- Rokitansky-Küster-Hauser syndrome who underwent neo vaginoplasty between July 2017 and March 2024 were included in the study. All patients underwent the laparoscopic Davydov's surgical procedure by two highly qualified surgeons and were followed up at 1 week, 1, 3, 6, and 12 months after. Vaginal examination and measurement of neovagina's length was performed during each follow up. The Female Sexual Function Index (FSFI) was used to assess sexual satisfaction in women who were sexually active.

#### **Results**

**Results:** Mean surgery duration time was 94 min (range, 75-110 min). Mean age of the patients at the time of the surgery was 24.5 (range 20-32) years old. The mean length of neo-vagina after surgery was 6,6 cm (range, 5.4-8.2 cm). 1, 3, 6 and 12 months after surgery the mean length of neo vaginas were 6.8, 7.8, 10.2, and 12.4 cm, respectively. Mean FSFI score was 25.2 (range, 23-30).

#### **Conclusions**

**Conclusion:** Laparoscopic peritoneal vaginoplasty with proper postoperative self-dilation is an effective and relatively simple surgical treatment for patients with MRKHs which allows to reach desired anatomical and functional outcomes.

**ABST-0775 - P359**

**ePoster and Video Presentations**

### **Removal of big intracervical myoma during the third cesarean section**

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#### **Background**

Among other uterine myomas those located in the cervix are less frequently met. They can be primarily classified as extra - (sub-serosal)) and intracervical. Further anterior, posterior, lateral, and central types depending on their position.

Cervical myomas of any type of present special interest from surgical point of view because their removal is challenging. The potential risk of bleeding and injury of the uterus and adjacent organs and structures should be kept in mind. This is of particular importance in cases when the decision to perform myomectomy is to be taken during caesarean section.

#### **Methods**

31 years old female with a history of two caesarean section (2012 and 2013) was followed during her present pregnancy at our department. From the early stages it was known from ultrasound examination that she had 110x97 mm cervical myoma. Normal course of gestation was reported, and caesarean section was planned for 37th week. Preoperatively it was decided by mutual consent to simultaneously remove the myoma

#### **Results**

##### **Steps of surgery**

- 1 Typical caesarean section was performed.
- 2 Secondary inspection revealed intracervical myoma of antero-lateral position protruding to right.
- 3 Wide opening of right lateral retroperitoneal space along with bladder dissection down to its neck was done.
- 4 Right round ligament was cut and a. iliaca interna was clamped
- 5 A longitudinal incision was made down from the projection of internal cervical orifice and partially necrotized soft myoma was enucleated.
6. Both uterotomic incisions were closed with 2 layers of suture. Restoration of the right round ligament and peritonisation without tension was performed
7. Closure of abdominal wall

The total surgery time was about 70 minutes with estimated blood loss of approximately 600 ml. Cervical myoma was confirmed by pathohistology.

## **Conclusions**

Although there are opposite opinions concerning myomectomy during caesarean section, it can be feasibly performed even in cases of intracervical location regardless of its size. Proper knowledge of pelvic anatomy and respect of surgical rules are required. This can be reached within the training program for modern endovisual surgery.

<https://player.vimeo.com/video/969152434?autoplay=1>

**ABST-0776 - P360**

**ePoster and Video Presentations**

**Biomarkers and algorithm in the differential diagnosis of ovarian tumors.**

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## **Background**

**Relevance.** Ovarian cancer ranks sixth among malignant neoplasms in women worldwide, accounting for 4.4% of cancers in women. Due to certain difficulties in early diagnosis, the lack of optimal diagnostic criteria and a poorly expressed clinical course at the earliest stages, mortality from ovarian cancer increases. Recently, protein 4 of the appendage of the human testicle (HE 4 - Human epididymis protein) has been a promising new biomarker of ovarian cancer.

**Objectives.** Determine the role of HE4 and Roma index in the differential diagnosis of benign and malignant ovarian tumours in women.

## **Methods**

The research work was carried out on 100 patients with ovarian tumours (n=72 malignant ovarian tumours, n=28 benign ovarian tumours). The level of cancer markers CA-125 (Cancer Antigen 125) and HE4 (Human epididymis protein) was determined by chemiluminescent immunological analysis (COBAS-e 411 automated analyser). An algorithm for ovarian cancer risk (ROMA, Risk of Ovarian Malignancy Algorithm) was calculated, including the age of the woman, and the level of 125.

## **Results**

**Results.** In the research work, the concentration of tumour marker CA-125 ( $794,7 \pm 139,7$  pmol/L, against  $25,0 \pm 3,6$  pmol/L) and HE4 ( $657,7 \pm 101,5$  pmol/L, против  $56,3 \pm 4,0$  pmol/L) in the blood of women with malignant ovarian tumours compared with benign ovarian tumours, respectively in 31,8 time ( $P=0,009$ ) and 11,7 time ( $p=0,004$ ) increased significantly. At the same time, the Roma index ( $74.4 \pm 3.6\%$ , against  $12.4 \pm 1.6\%$ ) in malignant ovarian tumours increased by 6 times ( $p=0.001$ ) compared to benign ovarian tumours.

## **Conclusions**

Thus, serum concentrations of HE4 and CA125 were elevated in patients with ovarian cancer. The combination of serum CA125 and HE4 leads to a higher accuracy in the diagnosis of ovarian cancer,



**Development of the caesarean scar ectopic pregnancy: A case report**

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**Background**

Ectopic pregnancy occupies one of the leading places in the structure of maternal mortality, it also ranks first as a cause of intra-abdominal bleeding and in second place in the structure of acute gynaecological diseases. In the Republic of Kazakhstan, 14.8% of births were delivered by caesarean section, but data on the development of a caesarean scar ectopic pregnancy are still limited.

**Methods**

This case report is in a 30-year-old, Gravida 3 Para 2 (G3P2), who had two (2) previous caesarean sections as well as three (3) abdominal procedures: Laparoscopy, Cystectomy for endometrioma, Laparoscopy for endometriosis. From the anamnesis, on December 31, 2023, she was operated on for a right-sided tubal ectopic pregnancy, where only the fertilized egg was removed, the fallopian tube was preserved. The patient came to us in March 2024 with complaints since the last operation of incessant bleeding from the genital tract of varying degrees of intensity, periodic pain in the lower abdomen on the left. According to transvaginal ultrasound, a hypoechoic formation in the structure of the left ovary measuring 33\*32 mm was determined, as well as a hypoechoic formation closely adjacent to the ovary measuring 22\*16 mm. The beta-hCG level at the time of examination was 44 mIU/ml. However, consent was gained in performing a diagnostic laparoscopy and hysterectomy if with complications necessitating such a procedure. During laparoscopy, a round formation vaguely resembling a gestational sac was discovered in the left ovary, where histological verification confirmed the corpus luteum. It is worth noting that the possibility of intrauterine pregnancy was not excluded. Next, hysteroscopy was performed, which made it possible to identify a placental polyp in the niche of the uterine scar, which was removed using the "cold snare" method.

**Results**

The use of an expanded and comprehensive approach in the diagnosis of ectopic pregnancy made it possible to identify a placental polyp and provide timely surgical tactics. Postoperative analysis after 10 days of diluted serum beta-hCG showed <1.20 mIU/ml (97.2% decrease). The patient was discharged on the second post-operative day without any complaints; at two-month follow-up no specific symptoms were observed.

**Conclusions**

With caesarean sections on the rise, complications continue to increase and may become more common in the near future. Therefore, the purpose of this paper is to provide clinicians with a comprehensive approach to the management of this rare form of caesarean scar ectopic pregnancy.

<https://player.vimeo.com/video/969221485?autoplay=1>

**ABST-0781 - P361**

**ePoster and Video Presentations**

### **Using platelet-rich plasma for treatment of HPV**

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#### **Background**

Human papillomavirus infection is regarded as the most common type of sexually transmitted infection, affecting more than 80% of sexually active women and men. In the world over the past decades, the number of people infected with HPV has increased more than 10 times. By 2030, the number of newly diagnosed cases of cervical cancer will increase by 40%, and after 2050, 1 million women in the world will be diagnosed with cervical cancer every year.

#### **Methods**

27-year aged female with a history of two medicated abortions before 12 weeks were referred to hospital. The patient complains of itching, pain during sexual intercourse and haematuria. After diagnostics using RT-PCR, a positive result for HPV16 was revealed. It was decided to remove the foci of condyloma, increase immunity and conduct antiviral therapy. A blood plasma transfusion was also carried out in order to accelerate the healing and regeneration of damaged body tissues. It has been scientifically proven that the stimulating effect of platelet-rich plasma is manifested if the concentration of platelets in it is equal to 1,000,000/ $\mu$ l.

#### **Results**

The steps involved in PRP therapy are:

Step 1: Collect the patient's own blood.

Less than two ounces (between 15 to 50 millilitres) are required for the procedure.

Step 2: Centrifuge the blood.

This action physically separates the solid and liquid parts of the blood: erythrocytes, leukocytes, thrombocytes and plasma .

Step 3: Process and collect the platelets.

Regular blood contains about 200,000 platelets per millilitre, while platelet-rich plasma contains as much as five times that amount. The resulting three to seven millilitres of platelet-rich plasma will be collected in a syringe, to be administered immediately.

Step 4: Inject the PRP into the desired site.

The final syringe of platelet-rich plasma will contain approximately 1-2 teaspoons of fluid. With the guidance of an ultrasound probe, the PRP will be guided into the proper location, based on the nature of the injury being treated.

#### **Conclusions**

The most effective and promising is a complex combination method of therapy, when local removal of altered tissues is carried out against the background of systemic treatment. Using of PRP is not the only method of treating HPV but is one of the important parts of complex treatment, affecting regeneration processes and helping to accelerate these processes. Consequently, the use of platelet-

rich plasma in the treatment of damage to mucous tissues makes it possible to accelerate the healing time as a result of its influence on the pathophysiological processes of reparative regeneration.

**Inaccurate drilling method in PCOS surgery**

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**Background**

The main cause of chronic anovulatory infertility is PCOS, which is most common in women of reproductive age. It was first discovered in 1935 by Stein-Leventhal. In addition to genetic factors, its pathogenesis compromises environmental factors, neuroendocrine disorders, insulin resistance and hyperandrogenism. Increased testosterone, LH/FSH ratio and glucose tolerance are manifested by clinical signs such as hirsutism, oligomenorrhea, amenorrhea, infertility, obesity, acne, abnormal uterine bleeding. Diagnostic criteria include the presence of polycystic cysts (at least 12 antral follicles), ovulatory dysfunction, hyperandrogenism and hirsutism in ultrasound examination. It can be treated with medication and surgery. The goal of the treatment is to reduce body weight, normalize insulin levels, restore the menstrual cycle, fertility, treat hair loss and acne, and prevent long-term complications.

Investigation of complications arising from improper execution of the drilling method in PCOS surgery.

**Methods**

Between 2018 and 2023, 68 out of 105 patients with a history of ovarian drilling provided video recordings of their procedures. The patients were divided into two groups: Group I comprised 25 patients who underwent protocol-compliant drilling, and Group II included 43 patients who underwent non-compliant drilling. Postoperative AMH levels were evaluated for all patients in both groups. Clomiphene citrate and gonadotropins were used for ovarian stimulation. Twelve patients were referred for IVF treatment. Diagnostic laparoscopy was offered to 15 patients, with consent obtained from 7 patients.

**Results**

In Group I, postoperative AMH levels ranged from 2 to 7.3 mg/dl, and 18 patients achieved pregnancy through ovarian stimulation. In Group II, 16 patients had AMH levels ranging from 0.01 to 2.1 mg/dl, and 24 patients had levels ranging from 2.5 to 5.6 mg/dl. Among the 33 patients who underwent ovarian stimulation, only 5 achieved pregnancy. Diagnostic laparoscopy performed on 7 patients revealed multiple adhesions in the pelvic cavity and scar tissue on the ovaries.

**Conclusions**

Improper drilling method leads to the formation of multiple adhesions, intense decrease in the ovarian reserve, failure to ovulate, disruption of the blood circulation of the ovary and, as a result, iatrogenic infertility.

**ABST-0783 - VP169**

**ePoster and Video Presentations**

### **Step by step laparoscopic excision of caesarean scar pregnancy**

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#### **Background**

Surgery for caesarean scar pregnancy according to the recent data seems to be preferable in comparison with medical or radiologic management since the latter is associated with high reintervention rate. Further, it allows defect revision and repair, and this way, decreases the likelihood of future recurrence and secondary infertility.

#### **Methods**

We have elaborated basing on personal experience own approach to primary operative treatment of caesarean scar pregnancy. In the given video presentation, we share with the standardized steps of intervention adopted at the minimal invasive gynaecologic division of the Baku Health Center Hospital.

#### **Results**

Step 1 – Insertion of trocars following 5-point technique

Step 2 – Initial adhesiolysis and inspection of abdominal and pelvic cavity

Step 3 – Wide opening of the retroperitoneum of pelvic anterior compartment with cutting of round ligaments (this helps with proper exposition of the scar area for excision and suturing)

Step 4 – Separation of bladder from lower uterine segment and scar area with bulged gestational sac

Step 5 – Isolation of uterine arteries and ureters. Sometimes it is necessary as in this video it is worth doing this till the latter reach the bladder, at least from one side when the defect and bulging is lateral

Step 6 – permanent or temporal blocking of uterine arteries

Step 7 – excision of gestational sac together with the scar area

Step 8 – suturing of the uterotomic wound in two layers

Step 9 – restoration of the round ligament's integrity and partial peritonisation

Step 10 – evacuation of the excised material from the abdominal cavity, check for haemostasis and removal of ports

#### **Conclusions**

Taking into consideration that the surgery for early detected caesarean scar defect is challenging, it is very important to have standardized approach to make this intervention safe and feasible.

<https://player.vimeo.com/video/969815394?autoplay=1>

**Hysteroscopic myomectomy: a retrospective cohort study**

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**Background**

Women of reproductive age with submucosal fibroids commonly present with abnormal uterine bleeding and infertility. Hysteroscopic myomectomy is the standard of treatment for myomas of type 0, 1 or 2, according to the FIGO classification. The reported complication rate is from 1 to 13%, with possible complications being uterine perforation, absorption of distention media, gas embolism, haemorrhage, infection and adhesion formation.

We aimed to report complications of hysteroscopic myomectomies performed in a reference centre and to explore factors associated with these complications.

**Methods**

Consecutive women who underwent hysteroscopic myomectomies between January 1st and July 31st, 2023, in the gynaecologic department of a teaching hospital, were included. Women were excluded if they had also undergone another associated gynaecologic surgery, except a concomitant hysteroscopic procedure or if the myoma was in the vagina. We performed a retrospective cohort. We first reported the rate of complications and then evaluated different factors as risk factors for complication using a chi square test.

**Results**

One hundred and seven women underwent hysteroscopic myomectomy during the study period and were included in this retrospective study. A complication occurred in 7 cases, leading to a rate of 6.54%.

Main preoperative symptom was abnormal uterine bleeding in 78 cases (70.9%) complicated with anaemia in 21 cases (26.9%). Infertility was recorded in 21 women (27.6%). Regarding the size, 74 myoma were less than 3cm (70.5%) and 31 were bigger than 3cm (29.5%).

A complete resection was possible in 77 women (72.0%) while multiple resection was required in 30 cases (28.0%).

Complications were five cases of hemodynamic intolerance (two of which experienced gas embolism), one case of endometritis necessitating hospitalization and one case of fluid deficit of more than 2 liters that resulted in prolonged hospitalization. Complications occurred mostly in incomplete resection ( $p < 0.05$ ) (perhaps because of premature interruption of the procedure). A longer operative time ( $p = 0.076$ ) and a myoma size over 3cm ( $p = 0.09$ ) have a trend toward significance which may be due to an insufficient power. No case exhibited complications such as haemorrhage, uterine perforation, or the need of emergency second surgery.

**Conclusions**

The reported complication rate was 6.54%. Complications were more frequent in case of incomplete procedure. A longer operative time and a myoma size over 3cm may also be associated with a higher complication rate.

**Reproductive outcomes after hysteroscopic metroplasty for septate uterus: a retrospective multicentre study**

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**Background**

Hysteroscopic metroplasty is the gold-standard minimally invasive surgical approach to treat septate uterus, with the potential to improve reproductive outcomes. This retrospective cohort study investigates the impact of metroplasty on pregnancy rates in women with septate uterus treated at two tertiary care centres - Digital Hysteroscopic Clinic (DHC) 'CLASS Hysteroscopy' of Fondazione Policlinico Gemelli IRCCS of Rome (Italy) and Hysteroscopy Unit of the Department of Gynaecology and Obstetrics of University of Naples 'Federico II' (Italy).

**Methods**

We conducted a retrospective analysis on patients with a history of primary infertility or recurrent miscarriages who underwent hysteroscopic metroplasty for a septate uterus, from the opening of each centre to December 2022. The analysis included women with U2a and U2b (C0/C1) malformations (according to ESHRE/ESGE classification system) who provided informed consent for the study. Malformations were diagnosed using an integrated approach involving 3D transvaginal ultrasound and outpatient hysteroscopy. Preoperative 3D ultrasound evaluated the interstitial line, the distance between the serosa and interstitial line, and the septal length, guaranteeing a tailored surgery. Hysteroscopic metroplasty was performed with miniaturized instruments, avoiding dilation of the cervical canal. Postoperative assessment of the uterine cavity was conducted through 3D transvaginal ultrasound and outpatient hysteroscopy. Patients were then followed up with telephone interviews to assess obstetrical outcomes.

**Results**

Patients enrolled in the study were 233 with a mean age of 32.2 years (SD 5.4). Median BMI was 23 (range 14.7-33.2). Septal incision was performed using a 15-Fr bipolar Mini resectoscope under general anaesthesia or a 5-mm hysteroscope with miniaturized instruments in an outpatient setting, respectively in 62.4% and 37.6% of cases. In 54.6% of patients an anti-adhesive gel was applied inside the uterine cavity. All procedures were successful with no complications, resulting in a regular volume and normal morphology of the uterine cavity. McNemar test showed a significant difference in pregnancy rate before and after surgery ( $p < 0.001$ ), improving from 34.6% (95% CI: 27.2-42.5) to 79.2% (95% CI: 72.1-85.3), respectively. Live birth rate significantly increased by 54% ( $p < 0.001$ ) following surgery, with a corresponding 11.3% decrease in abortion rate ( $p = 0.02$ ). Only age, among the clinical variables considered, significantly affected the pregnancy rate ( $p = 0.009$ ). The observed obstetrical complications were preterm birth 7.4%, placental abruption 1.1%, placenta previa 1.1%, postpartum haemorrhage 6.3% and retained placental products 2.1%. In our population, no significant differences were observed in complication rate compared to the general female population.

**Conclusions**

Our study suggested that hysteroscopic correction of the septate uterus improved pregnancy rate in women with primary infertility or recurrent miscarriages. Further prospective randomized controlled trials are needed to confirm our results and to evaluate the efficacy of hysteroscopic metroplasty in different subgroups of women with septate uterus.

## ABST-0325 - P171

### ePoster and Video Presentations

#### Reduction in Dysmenorrhea at 36 Months after the Minitouch 3.8 Era Office Endometrial Ablation Procedure

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#### Background

To review long-term impact in dysmenorrhea burden of the subjects who underwent the Minitouch Procedure for the treatment of heavy menstrual bleeding.

#### Methods

A prospective, multicentre, single-arm, open label, pivotal clinical trial was conducted at 5 US physician's offices to evaluate safety and efficacy of Minitouch Outpatient Endometrial Procedure. 114 premenopausal women with a history of heavy menstrual bleeding and a Pictorial Blood Loss Assessment (PBLAC) score >150 were treated with the Minitouch Procedure, and their dysmenorrhea NRS scores (scale 0 to 10) were collected pre-procedure, and at 3, 6-, 12-, 24- and 36-months post-procedure.

The demographics were as follows - mean  $\pm$  SD (range): age  $41.8 \pm 4.7$  (30-50) years, C-sections  $0.7 \pm 1.0$  (0-5), sounding depth  $8.6 \pm 0.9$  (7.0-11.0) cm, cavity length  $5.2 \pm 0.8$  (4.0-7.8) cm, and endometrium thickness  $9.5 \pm 4.2$  (3.0-23.4) mm.

All 114 Minitouch Procedures were performed in office without endometrial pretreatment or period timing. Cervical dilation and cavity sealing are not required. There is no upper limit to the cavity length that can be treated. Mean procedure duration was 7 minutes, with a median of 7 minutes.

#### Results

Mean Dysmenorrhea NRS score was 6.1 pre-procedure. It reduced to 1.4, 0.9, 0.8, 1.0 and 0.9 respectively at 3, 6, 12, 24 and 36 months.

71% (76/107) of the subjects reported a score of zero (0) indicating no pain at all at Month 36.

23% (25/107) reported a score in the range 1 to 4, and 6% (6/107) reported a score in the range 5 to 7.

0% (0/107) reported a score of 8 to 10 at Month 36.

Prior to the procedure, the corresponding scores were 4% (5/114), 14% (16/114), 47% (54/114), and 34% (39/114) respectively.

95% (98/103) who had dysmenorrhea saw their mean score reduced significantly from 6.6 to 0.8. For 6% (6/107), the individual scores remained the same. Their scores were zero or low with a mean of 1.0. For 3% (3/107), the mean score increased slightly from 2.3 to 4.7.

#### Conclusions

The Minitouch Office Procedure delivered a significant reduction in dysmenorrhea burden for 95% of the subjects who had dysmenorrhea. The improvement was reported as early as at 3 months and remained consistent through the 36-month endpoint.



**ABST-0054 - P211**

**ePoster and Video Presentations**

**Predictive Factors for Successful Office-based Operative Hysteroscopy by a Tissue Removal System without Anaesthesia**

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**Background**

Small-diameter operative hysteroscopes may allow to perform office-based hysteroscopy without general anaesthesia in selected patients.

We aim to identify women with endometrial polyps (EP) or retained products of conception (RPOC) best suited for operative hysteroscopy by hysteroscopic tissue removal system (HTRS) without cervical dilation or anaesthesia.

**Methods**

A prospective observational cohort study of consenting women aged >18 years diagnosed with EP or RPOC from 9/2022 to 8/2023 in a tertiary university-affiliated hospital. Office-based vaginoscopic operative hysteroscopy without anaesthesia using the Mini-Elite Truclear HTRS. Oral misoprostol was prescribed for cervical ripening. The patients rated intraoperative and 5-minute postoperative pain levels on a visual analogue scale, with mild pain defined as a score of 0-4, moderate as 5-7, and severe as 8-10. A successful procedure was defined as complete removal of the pathology.

**Results**

: Fifty patients were included in this pilot study, and 47 (94.0%) procedures were completed successfully, including 22/24 (87.5%) cases of EP and all cases of RPOC (26/26, p=0.06). No intra- or postoperative complications occurred. The intraoperative pain levels were rated as mild, moderate, and severe by 26 (52.0%), 16 (32.0%) and 8 (16.0%) patients, respectively. Severe intraoperative pain was more common in nulliparous women and those >10 years from their last vaginal delivery, and not associated with patient age, menopausal status, presence of abnormal uterine bleeding, or pathology size. Severe postoperative pain, reported by 5 (10.0%) patients, was significantly associated with removal of EP compared with RPOC, longer operative time, and nulliparity or >10 years from the last vaginal delivery. The procedure was considered acceptable by 46 (92.0%) patients, and 45 (90.0%) would recommend it to a friend/relative.

**Conclusions**

Office-based operative hysteroscopy by the HTRS is successful and well tolerated by most women, especially for RPOC removal. Operative hysteroscopy under general anaesthesia may be considered for removal of EP in nulliparous women and those who delivered >10 years earlier.

**Evaluation of Pain and Outcomes of Hysteroscopy with Analgesics vs. Aromatherapy/Music Relaxation**

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**Background**

First author: Ugalde, Alejandro.

Introduction: Office hysteroscopy has emerged as an invaluable technique for the diagnosis and treatment of a wide range of uterine pathologies. This minimally invasive technique provides a direct view of the inside of the uterus, allowing for precise evaluation and performance of therapeutic procedures in an outpatient setting. It can be performed with analgesia to minimize discomfort and pain associated with the procedure. Additionally, aromatherapy with soft and relaxing fragrances, combined with calm music, can help create a more comfortable environment and reduce anxiety in patients during hysteroscopy.

Objective: To compare the pain experienced during hysteroscopy with biopsy in patients with analgesics versus aromatherapy/music relaxation, as well as to evaluate adverse events.

**Methods**

Methods: A total of 106 hysteroscopies with biopsy were performed. Of these, 51 hysteroscopies were carried out with pre-medication with NSAIDs (paracetamol and ibuprofen), and 55 were conducted with aromatherapy and relaxing music. At the end of each hysteroscopy, a questionnaire was completed where patients rated the pain during the procedure using the visual analogue scale of pain, while the physician recorded any adverse events.

**Results**

Results: In the analgesics group, the 51 patients had an average of 3.37 points on the pain scale. Of these, 7 patients (13.72%) experienced vagal reflex, and 5 patients (9.8%) suffered uterine perforation. In the aromatherapy/music group, the 55 patients had an average of 4.45 points on the pain scale. Only 1 patient (1.81%) experienced vagal reflex, and no uterine perforations were recorded in this study.

**Conclusions**

Conclusion: Regarding pain during hysteroscopy, it was similar in both groups without a significant difference. However, a higher incidence of vagal reflex was observed in the analgesics group (13.72%), as well as an association between reduced pain perception and increased incidence of uterine perforation (9.80%). This suggests that better communication during the study, facilitated by reduced pain perception, may help prevent adverse effects.

### Isthmoplasty Anterior wall only or circumferential

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#### Background

Uterine niche, or isthmocoele, is a defect of the anterior uterine wall at the site of a previous caesarean section (CS). Various symptoms have been attributed to this defect, including post-menstrual bleeding and recurrent vaginal discharge.

Various approaches have been described to address this problem, which essentially sum up to laparoscopic excision or hysteroscopic repair. For this latter approach, it has been debated whether the anterior uterine wall only should be resected hysteroscopically or should the whole circumference of the isthmus and upper cervical canal should be treated.

#### Methods

We have reviewed recent literature on hysteroscopic isthmoplasty, especially those addressing the question of which isthmocoele walls to target. Additionally, we have included our experience with a large cohort of patients whom we have treated and followed up over several years.

#### Results

We report our findings from reviewing relevant literature on hysteroscopic isthmoplasty, as well as our expertise from a large series of patients for whom we have performed hysteroscopic isthmoplasty limited to the anterior wall, with consequent follow up of patients' complaints and progress.

#### Conclusions

Despite being frequently encountered, and with a rising incidence, the ideal hysteroscopic technique for isthmoplasty remains a matter of debate. Limiting the procedure to the anterior uterine wall versus circumferential treatment each has its advantages and drawbacks. However, anterior wall treatment remains a more simple and effective approach, with a potential for avoiding possible drawbacks and technical difficulties.

**The use of the 19Fr. Intrauterine Bigatti Shaver in operative hysteroscopy for benign intracavitary lesions: a feasibility study**

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**Background**

Treatment of common benign intracavitary lesions of the uterus, such as endometrial polyps, submucosal myomas, and retained products of conception (RPOC) has evolved significantly over the past decades. Hysteroscopic morcellation was introduced as an alternative to the traditional operative hysteroscopy with bipolar resectoscopic excision, due to concerns regarding thermal damage and impaired visibility. Recently, with the aim of promoting a minimally invasive approach, smaller diameter hysteroscopic morcellators were designed, such as the 19 Fr. Intrauterine BIGATTI Shaver (IBS®). This prospective study aims to assess the feasibility and outcomes of using the 19 Fr. Intrauterine BIGATTI Shaver (IBS®) for benign intracavitary lesions, which might even be suitable in an office setting.

**Methods**

A multicentric prospective cohort study was conducted among patients with suspected benign intracavitary lesions. Procedures were performed using the 19 Fr. Bigatti Shaver under sedation or general anaesthesia. Data on procedural outcomes, complications, and patient-reported outcomes were collected prospectively.

**Results**

Fifty-eight patients were included, of which the majority had endometrial polyps. Hysteroscopic morcellation achieved complete resection in 95% with minimal need for additional procedures. Operator satisfaction was generally high, particularly for endometrial polyps. However, challenges were encountered with RPOC and myomas, including 2 cases of excessive bleeding and longer morcellation times (2 minutes for endometrial polyps vs 4.5 for RPOC and 6 for myomas). Postoperative complications were rare (2%), with satisfactory patient-reported outcomes (only mild to moderate pain scores in 12% of cases).

**Conclusions**

This study demonstrates the feasibility and safety of using the 19 Fr. IBS® for benign intracavitary lesions, particularly for endometrial polyps. Challenges were encountered with RPOC and myomas, highlighting the importance of careful patient selection and preoperative planning. Further research is warranted to validate the device's utility in broader clinical contexts and to address specific challenges associated with different lesion types.

**ABST-0222 - P237**  
**ePoster and Video Presentations**

**A 10-Year Service Audit of Outpatient NovaSure Procedure under local anesthesia for Abnormal Uterine Bleeding in Women: Evaluating Success Rates and Re-Intervention Patterns**

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**Background**

Abnormal uterine bleeding (AUB) places a substantial burden on the healthcare system, as well as on the lives of affected women and their families. It is estimated that up to 30% of women will seek medical attention for AUB during their reproductive years. There is limited data on long term efficacy of the procedure particularly when done under local anaesthesia. This study aimed to conduct an objective institutional 10-year service audit to assess the success rate of outpatient NovaSure procedures in treating AUB in women.

**Methods**

The study was conducted at Great Western Hospital between 2012 and 2018, with patients followed for a minimum of 5 years. The primary outcome measure was the re-intervention rate at 1, 3-, 5-, 8-, and 10-years post-procedure.

**Results**

We included a total of 93 women, with a median age of 44 years. No safety incidents were encountered with the procedure. At the 1-year mark, the re-intervention rate was 12.90% (12/93), with 3 of the 12 patients managed with organ-sparing interventions. The cumulative re-intervention rates at 3 and 5 years were 19.35% (18/93) and 24.73% (23/93), respectively. Notably, the interval re-intervention rates were 7.14% between years 1-3, 6.23% between years 3-5, 5.5 % between years 5-8 and 0 after 8 years. Cumulative hysterectomy rates at 10 years were 20.43%. In the 19 patients who needed hysterectomy, leiomyomas and adenomyosis were identified in 14 patients.

**Conclusions**

The findings of this study suggest that outpatient hysteroscopy and NovaSure procedure under local anaesthesia is a safe and effective tool for treating AUB in women. Leiomyomas or adenomyosis could represent a cause for treatment failures. Further research should compare inpatient and outpatient NovaSure procedures and evaluate cost effectiveness.

**intrauterine fibroid resection using 16F Mini-Resectoscope**

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**Background**

Assessment of clinical results of transcervical surgical treatment of submucous myomas using bipolar mini-resectoscope in an outpatient setting.

**Methods**

From the October 2022 to April 2024 67 patients 21-66 years old with the different intrauterine pathology were operated by miniresectoscopic procedure and were divided in two groups.

Group I included 40 patients – hysteroresectoscopy performed with 16F mini-resectoscope in an office setting, without analgesia and/or anaesthesia (study group). Among 67 patient whose of them, who have pain during procedure were conversed to group II.

Group II – traditional hysteroresectoscopy with using anaesthesia included 27 patients (control group).

**Results**

Submucous fibroids were identified in 31 case series which were included in two groups of our study. Among them, there were 6 patients (19.3%) with the submucous myoma with a node type G0; 11 cases (35.4%) -type G1 and 14 cases (45.3%) -type G2 (FIGO). Office “see and treat” fibroid resection was successfully performed without cervical dilatation and any anaesthesia, intracervical local anaesthetic injections, or analgesia in 18 case series (60%), included in group I of the study. Overall mean myoma size was  $10,3 \pm 6.43\text{mm}$ . Average operating time was  $9,7 \pm 6.12$  minutes.

The discomfort experienced by each patient was assessed during the surgical procedure (calculated VAS was  $2,37 \pm 1.89$ ) and after 15 minutes of the end of the surgical treatment (calculated VAS was  $1,7 \pm 1.2$ ). No major complications, such as haemorrhage, uterine perforation, distension fluid overloading syndromes, severe vasovagal syndrome, genital tract burns, or postoperative infections, were recorded, either intraoperatively or subsequent to patient discharge.

**Conclusions**

1. The present study demonstrate that removal of submucous fibroids type 0,1,2 (FIGO) in one-step surgery using the 16F mini-resectoscope in an office setting is a feasible, minimally invasive and safe surgical method of treatment intrauterine pathology.

2. Outpatient “see and treat” myomectomy offers many advantages and can be acceptable and effective alternative to traditional inpatient resection of intrauterine fibroids which is associated with many surgical complications.

3. Moreover this «new-generation» operative technique in an outpatient setting is more economically justified which will help significantly reduce overall medical costs of treating women with intrauterine pathology compared to inpatient treatment.

**Is it painful? For me yes, for you not. New concept of office hysteroscopy related pain**

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**Background**

Diagnosics and therapy of intrauterine and uterine abnormalities are performed all over the world, many of them by hysteroscopy. Intrauterine procedures performed in an office setting, without anaesthesia have the pain, as a limiting factor. Numerous researcher studied several factors of the procedure, to find the main cause of pain. But no significant correlation could be found between any factors and pain. Our objective is to study the psychological status of the patient and to be able to predict the level of pain during upcoming surgery.

**Methods**

In this study we examined 135 women with various gynaecological problems who had gone through office hysteroscopy. For the procedure no anaesthesia was used. The patients filled several types of psychological questionnaires before the hysteroscopy, and other types after the procedure. Pre-procedural we asked about the intensity of their assumed pain, and post-procedural about the maximal and average perceived pain. With the psychological tests we collected data about the adverse childhood experiences, the quality of their bonding relationships, their beliefs associated to pain, the sexual distress, the coping mechanisms, the actual and procedure-linked anxiety, recent stressful events and the intensity of supposed and lived through pain. As organic factors, we recorded the patients' blood pressure, before and after the procedure.

**Results**

135 patients filled all of our psychological tests completely. According to the basic statistical analysis we can see, that the average pain correlates with the duration of procedure (0.241) assumed pain (0.206) the pain catastrophizing (0.253) and the pain resilience negatively (-0.301). Among our patients we differentiated special sub-groups. In sub-group one 28 cases polypectomy was performed by mini-resectoscope (outer diameter 6.4 mm, 18 patients) in other sub-group by forceps (outer diameter 5.5 mm, 16 patients). With a sub-group-comparison within the polypectomy-group there were no statistically significant difference between the forceps-group and the resectoscope-group regarding the investigated parameters (assumed pain, average pain, actual anxiety, procedural-related anxiety, traumatic childhood events, sexual distress. As a physiological factor, pre- and post-procedural blood pressure was recorded and compared to the psychological status, average pain. Only the elevation of the blood pressure showed correlation with the Perceived Stress Scale (0.183).

**Conclusions**

Our study suggests that the individual pain resilience and pain catastrophizing play important role in the perception of pain during office hysteroscopy over the surgical and gynaecological parameters of the patient. In the future we would like to set up a short questionnaire with that we can predict the level of pain preoperatively. With these information we can recommend the patient the most proper way of surgical treatment.

**The LiNA Librata cordless balloon thermoablation device and bleeding disorders: a quality assurance programme**

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**Background**

Bleeding disorders, such as heavy and/or prolonged menstrual bleeding, are one of the most common indications for gynaecologic surgery. Nowadays surgery is often performed as a minimally-invasive, daycare procedure mostly by thermoablation. Various devices for performing endometrial thermoablation are readily available. A relatively new device for performing endometrial thermoablation is the LiNA Librata<sup>TM</sup> device, which offers the advantage of a short treatment time of 2 minutes. Although commercially available scientific data are relatively sparse. Despite this the LiNA Librata<sup>TM</sup> device has been used in 2 Austrian gynaecological departments for many years. The objective of our investigation is to provide real-world data on LiNA Librata<sup>TM</sup> in order to be able to better counsel patients.

**Methods**

Data were derived from a quality assurance programme of the 2 respective departments. Patients were contacted by mail and were asked to call the treating physician performing the quality assurance programme. A structured telephone interview was performed asking for success of endometrial thermoablation, personal satisfaction with the treatment, severity of bleeding prior and post-surgery, etc.

**Results**

A total of 439 patients were identified and contacted by mail 3 times. 175 patients, i.e., 39.9%, contacted the quality assurance personnel. 3 patients were excluded from further analysis as they had to undergo hysterectomy for preinvasive/invasive endometrial pathology subsequent to the endometrial thermoablation. The mean follow-up period was 2.5 years, mean age of patients was 42.1 years, mean Body Mass Index 26.6. The mean time of bothersome heavy and/or prolonged menstrual bleeding prior to endometrial thermoablation was 89.4 months. On a numerical rating scale (NRS) from 0-10 the severity of bleeding was rated as 8.5. 22% and 68% patients were diagnosed with myomas or dysmenorrhoe prior to surgery, respectively. After surgery, patients reported the bleeding to be heavier (1%), weaker (54%), or equal (2%) compared to the preoperative state. 43% of patients were amenorrhoeic. After endometrial thermoablation the mean severity of bleeding was rated as 1.2. Subjectively, patients reported their symptoms to be better, equal or worse in 95%, 2.5%, and 2.5%, respectively. Within 12 months only 3 patients (1.7%) had to undergo repeat surgery. Patient satisfaction was high, i.e., 9.3 on a NRS scale: 97% of patients would recommend the endometrial thermoablation.

**Conclusions**

Of note, these are retrospective data based on a quality assurance programme with a structured telephone interview resulting in various biases: retrospective design, telephone interview, participation rate, etc. However, to our knowledge these are the first real world data on LiNA Librata<sup>TM</sup>. Patients' satisfaction, rate of reduction of the severity of bleeding, improvement of symptoms, and recommendation rate are high, comparable to published data on other endometrial thermoablation devices.



## Surgical Strategies for Preserving Ovarian Function in Endometrioma Management

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### Background

Endometriomas, also known as ovarian endometriotic cysts, are a common manifestation of endometriosis, affecting a significant proportion of women during their reproductive years. Surgical intervention is frequently required for symptom management and fertility preservation in these patients. However, traditional surgical approaches, such as cystectomy or ablation, have been associated with a potential risk of compromising ovarian reserve and future fertility. This has led to a growing concern among clinicians and patients, emphasizing the need to identify and implement surgical strategies that can effectively treat endometriomas while minimizing ovarian damage and preserving reproductive capacity.

### Methods

To address this critical issue, a comprehensive systematic review was conducted by searching multiple electronic databases, including PubMed, Embase, and Cochrane Library, for relevant studies published between January 2000 and December 2022. The search strategy focused on a combination of key terms related to endometriomas, ovarian cystectomy, ovarian reserve, fertility preservation, surgical techniques, and anti-Müllerian hormone (AMH). Randomized controlled trials, prospective cohort studies, and systematic reviews evaluating various surgical approaches and their impact on ovarian function preservation in endometrioma management were critically appraised and synthesized.

### Results

The literature review identified minimally invasive laparoscopic cystectomy with meticulous surgical technique as a promising approach for preserving ovarian function in the management of endometriomas. Specifically, careful stripping of the cyst capsule and judicious use of haemostatic agents have been associated with better preservation of ovarian reserve markers, such as AMH and antral follicle count (AFC), compared to ablative techniques or open surgery. Prospective studies have consistently demonstrated significantly higher postoperative AMH and AFC levels following laparoscopic cystectomy with minimal electrocautery use, indicating better preservation of the ovarian reserve compared to cyst ablation or laparotomy. Additionally, the technique of ovarian tissue transposition may be beneficial in cases of large or deeply infiltrating endometriomas, as it can prevent inadvertent ovarian injury during the surgical procedure.

### Conclusions

Based on the cumulative evidence from the reviewed literature, minimally invasive laparoscopic cystectomy with careful surgical technique, characterized by meticulous stripping of the cyst capsule and judicious use of haemostatic agents, appears to be the optimal approach for preserving ovarian function in endometrioma management. Ovarian tissue transposition may be considered as an adjunctive measure in select cases to further minimize the risk of ovarian injury. However, larger prospective studies with long-term follow-up are warranted to validate these findings and evaluate the impact of these surgical strategies on fertility outcomes, live birth rates, and overall reproductive health in women with endometriomas.

**Hysteroscopic resection of a complete uterine septum with preservation of duplicated cervix, assisted by the use of a Foley catheter balloon**

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**Background**

Hysteroscopic septum resection is the most commonly performed intervention in women with a septate uterus, in order to improve their reproductive and obstetric outcomes. We present a novel approach for complete septum resection via one-step hysteroscopy, using a foley catheter balloon as a guiding point in one uterine semi cavity and resectoscope in the contralateral semi cavity.

**Methods**

A 30-year-old nulliparous woman presented at our Department with severe dyspareunia and dysmenorrhea. During gynaecological exam and 2D transvaginal ultrasound a U2bC2V1 uterine anomaly was revealed, and MRI confirmed our findings according to the new ESHRE/ESGE classification (complete septate uterus with double "normal" cervix and longitudinal non-obstructing vaginal septum). Initially, the longitudinal vaginal septum was resected up to the external cervical os using electrocautery. Diagnostic hysteroscopy was performed using a 5mm diameter 30° continuous flow rigid hysteroscope through each cervical orifice. Two small semi cavities, each with a normal tubal ostium and a complete uterine septum were recognized. A No 16 Foley catheter was inserted in the left endometrial semi cavity and the balloon was filled with 6 ml of normal saline solution. We then proceeded to dilatation of the right cervix (Hegar dilators up to No 9,5) and inserted a 9mm diameter 30° continuous flow rigid resectoscope (Olympus Optical Co.) with Versapoint bipolar electro-surgical system (Gynecare; Ethicon Inc., NJ) in the right endometrial semicavity. The initial incision was made at the point of maximum projection of the uterine septum, using a bipolar hook-shaped electrode, until the balloon of the catheter was recognized. Using the balloon as a landmark, we extended our incision in both cephalad and caudal directions for complete septum resection. The procedure was completed with recognition of one reconstructed uterine cavity and insertion of a new Foley catheter filled with 6ml of normal saline.

**Results**

The Foley catheter was removed 10 days postoperatively, while oral oestrogens for 20 days, followed by oral progesterone for another 10 days were administered. The patient was re-examined at a 6-week interval, where we recognized complete resection of the vaginal and uterine septums. Follow-up MRI (two months postoperatively) confirmed a normal uterine cavity, with no residual uterine septum.

**Conclusions**

A Foley catheter balloon in one semi cavity induces a point of maximum projection of a complete uterine septum and indicates an appropriate site for the initial incision via resectoscope in the contralateral uterine cavity. It can also serve as a guide on which the electrode is moving, until the septum is completely resected. The uterine walls remain under direct visualization, so risk of injury and operative time are minimized. A safe, effective and low-cost technique that fits the purpose of hysteroscopic metroplasty perfectly.

**ABST-0528 - P367**

**ePoster and Video Presentations**

**Autoamputation of an ovary - a rare cause of abdominal pain in late pregnancy: A Case Report**

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**Background**

Ovarian torsion accounts for 3% of all surgical gynaecological emergencies, making it the fifth most common cause. It is most prevalent in women during the first three decades of life but can occur at any age. About 15-25% of cases occur in infancy or childhood, and 20% during pregnancy.

While torsion can happen in normal ovaries, it is more frequently observed in patients with pre-existing adnexal masses. If ovarian torsion is not promptly managed, it can lead to complete and persistent vascular compromise, resulting in haemorrhagic necrosis and gangrene. In severe cases, this can lead to rupture or infection.

Ovarian autoamputation is a rare outcome of ovarian torsion. Although the exact prevalence is unknown, it has been reported to occur in approximately 1 in 11,421 cases.

**Methods**

This is a case report of an autoamputation of an ovary - a rare cause of abdominal pain in late pregnancy. It has the history, blood tests, MRI images, operative findings, specimen picture, and histopathology results.

**Results**

NA

**Conclusions**

This was a rare case of ovarian torsion due to ovarian cyst. followed by ovarian autoamputation in a young pregnant female. The clinical picture and the persistently rising CRP were suggestive of ovarian torsion however, the MRI was deceiving.

The patient was properly counselled about options of management and risks and benefits of each. She initially opted for conservative management however, a few days later she asked for a CS due to worsened pain and a rising CRP.

After performing the CS, the ovary was found floating in the abdominal cavity completely necrosed and detached from its ligaments. The histology showed Benign cyst of indeterminate type

The patient recovered well and discharged home after the CS.

**ABST-0681 - P\*036**

**ePoster and Video Presentations**

**Structured regional teaching incorporating patient centered approach, innovation and structured evaluation of diagnostic and operative skills in outpatient hysteroscopy day**

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**Background**

We designed a 1-day outpatient hysteroscopy (OPH) motivated by the drive for OPH in the UK. This is mainly in the cancer/ two-week rule (TWR/2WW) and abnormal uterine bleeding (AUB) clinics.

We assessed the efficacy of the training day by assessing the delegates before and after feedback and training.

**Methods**

During the training day we aimed to educate trainees from ST1 to 7 about OPH. We outline the layout of the training day from theory, service provision, techniques, analgesia, pathology and finally a hands-on session. We then assessed participants twice and followed progress after feedback. This was all performed in one day on simulation models. We used the Bettocchi evaluation protocol. 1st and 2nd attempt scores were analysed using simple one tailed T-Test. We also gathered feedback from all trainees in order to fine tune and further develop the day

**Results**

Statistically significant ( $p < 0.05$ ) increase in scores were found on total scores and all individual domains. Data from all trainees was pooled (N=24)

**Conclusions**

We were able in a one-day structured session show improvement in theoretical knowledge, practical skill, diagnostic knowledge using a reproducible model. We also shed light on patient insight and service considerations such as identifying needs and innovating to meet those needs.

**Total laparoscopic hysterectomy in a obstetrics and gynaecology training program: 16-year experience at Pontificia Universidad Católica de Chile**

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**Background**

Hysterectomy is the most common major gynaecological surgery. Vaginal hysterectomy is the approach of choice in most cases of benign and premalignant disease. When this approach is not feasible, several studies have demonstrated the advantages of laparoscopic hysterectomy over abdominal hysterectomy. Specifically, total laparoscopic hysterectomy (TLH) requires a higher level of expertise and laparoscopic skills. Common barriers reported to performing TLH are training during residency and personal surgical experience. Obstetrics and gynaecology (OB/GYN) training programs have the challenge of preparing future specialists and safely exposing them to these different approaches. The OB/GYN residency program in the school of medicine at Pontificia Universidad Católica de Chile has a well-established progressive and supervised laparoscopic training program. The objective of this study is to describe 16 years of experience in TLH and explore associated outcomes.

**Methods**

A retrospective analysis of women who underwent TLH for benign, premalignant, and malignant disease from 1/1/2006 to 31/12/2022 at Clinical Hospital of Universidad Católica and San Carlos de Apoquindo Clinic, both belonging to the UC-Christus health network. Patient age, diagnosis, operative time, conversion to laparotomy, uterine weight, post operative stay, and intraoperative and postoperative complications were analysed. Clavien Dindo's classification was used to analyze postoperative complications. All hysterectomies were performed in a teaching setting, most of them operated by a third-year or subspecialty resident assisted by an experienced surgeon who was actively participating in the residency program.

**Results**

1332 TLH were performed. The median age of patients was 48 years (range 27 – 89). Uterine fibroids were the main indication for surgery (36.6%) followed by adenomyosis (22%). The average surgical time was 141 min (35 – 460 min). The longest surgical time corresponds to a patient with high grade endometrial cancer who presented a bladder injury. Conversion to laparotomy was required in 0.6 % of patients (n = 8). The average uterine weight was 158 gr. The average postoperative hospital stay was 2.3 days (1-17 days). There were 30 (2.3%) intraoperative complications, of which 10 corresponded to an inadvertent cystotomy (0.75%) and 7 to a ureteric injury (0.5%). There were 47 postoperative complications (3.5%) and 80.8% were Clavien-Dindo Grade II. The most frequent was vaginal cuff cellulitis and infectious causes (0.9%). A total of 17 (1.3%) required a post operative transfusion. There were 31 readmissions (2.3%), most of them due to postoperative complications.

**Conclusions**

These results confirm published data about TLH as a safe approach. We highlight the importance of standardizing surgical techniques and learning them during OB/GYN residence. In this way, we can help reduce barriers associated with minimally invasive surgery by expanding access to this technique and thus benefit patients.

### Laparoscopic complications and management in OB-GYN education

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#### Background

Gynaecological laparoscopic complications are observed at rates of 0.5-1.7% for intraoperative urinary tract issues, 0.13-0.5% for intestinal complications, and 0-1.7% for vascular complications, with cuff dehiscence and others occurring less frequently. Overall, complications occur at rates of 1.9% intraoperatively and 13-34% postoperatively, with a combined intra- and postoperative occurrence rate of 5-13%. Our aim is to contribute to education.

#### Methods

From March 2023 to May 2024, laparoscopic surgery was performed on 89 patients under the supervision of a single specialist physician at an educational and research hospital in Istanbul. Data were retrospectively collected.

#### Results

The mean age of the 89 patients was 44.69±11.15 years, with a mean surgery duration of 194.1±92.13 minutes. The mean haemoglobin (Hb) decrease was 1.52 g/dL. The most common surgeries performed were total laparoscopic hysterectomy (TLH)(45 cases),bilateral salpingectomy (BS)(14),cystectomy (17),lateral suspension (8, 4 of which were with hysterectomy),and least commonly,1 sacrohysteropexy, DIE (2), adhesiolysis(5).The maximum surgery duration was 475 min (TLH+BS+lateral suspension),while the shortest was a laparoscopic BS(40 min).Patients were categorized into Group 1 (complicated) and Group 2 (non-complicated) based on complication status. In Group 1, the mean surgery duration was 253.67±90.23, and the mean Hb decrease was 1.49 g/dL±0.89, whereas in Group 2,these values were 184.82±89.46 min and 1.53±1.31 g/dL, respectively. The T-test p-value for Hb level changes (0.91) indicated no significant difference between the two groups, while the p-value for operation duration (0.03) indicated a statistically significant difference. Complications included intraoperative events (8 cases): bladder injury (4, 4.49% among all patients), left ureteral injury (2.25%), and sigmoidal colonic serosal injury (1, repaired primarily), subcutaneous emphysema (1, managed by reducing intraperitoneal pressure and Trendelenburg position). Postoperative complications (4 cases) included obturator nerve injury (1, treated with vit B12, steroid injections, and thigh and femur adduction restriction), left ureteral injury (1, managed with nephrostomy and DJ stent placement), and removal of vaginal tampon on postoperative day 7(1). Due to suspected bladder injury, one patient underwent postoperative Foley catheter replacement and cystogram on postoperative day 3, which yielded normal results. A prophylactic DJ stent was placed due to suspected intraoperative left ureteral injury. In one patient who underwent primary repair, umbilical trocar insertion hernia was detected on postoperative day 2, leading to relaparotomy due to ileus. Bladder injuries were observed twice during TLH and twice during cystectomy in patients with hysterectomy. Obturator nerve injury was seen in a patient who underwent left retroperitoneal dissection. In Group 1, drains were used nine times, and seven patients required ICU admission.

#### Conclusions

We recommend that the determination of patients' risk statuses, the standardization of practical and preoperative theoretical training in OB-GYN residency education and the regular provision of model and simulation training be ensured by health authorities

## Challenges in Obstetrics and Gynaecology Surgical Education – A Structured Learning Theories Analysis

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### Background

Clinical environments in Obstetrics and Gynaecology (O&G) are dynamic and multifaceted, presenting both challenges and opportunities in patient care and safety, and the process of teaching and learning in O&G can be arduous due to an intricate interplay of intrinsic and extrinsic human and environmental factors. Comprehensive analysis of the multifaceted factors influencing human learning and performance supports the development of potential solutions to surmount obstacles. Learning theories are frameworks that describe how information is absorbed, processed, and retained during learning. These theories provide a multifaceted approach to surgical education, addressing various aspects of learning and skill development essential for training competent surgeons.

### Methods

This literature review explores these complexities using a structured framework, underpinned by established educational theories (Behaviourism, Cognitivism, Constructivism, Social Learning Theory, Humanism and Connectivism), and categorically synthesises the impacts on O&G surgical education.

### Results

	Concepts	Key Learning Mechanisms	Impacts on O&G surgical education
<b>Behaviorism</b>	<p>Learning is a result of stimuli and responses.</p> <p>Focuses on observable behaviours. Emphasizes conditioning and reinforcement</p>	<p>Classical conditioning</p> <p>Operant conditioning</p>	<p>Skill Acquisition</p> <p>Standardized Training</p> <p>Simulation-Based Learning</p>
<b>Cognitivism</b>	<p>Learners are active participants who organize and manipulate information to construct knowledge.</p> <p>Focuses on the mental processes involved in learning (e.g. memory, problem-solving, understanding)</p>	<p>Schema development</p> <p>Information processing</p> <p>Cognitive development stages</p>	<p>Problem-Solving Skills</p> <p>Structured Curriculum</p> <p>Cognitive Load Management</p>
<b>Constructivism</b>	<p>Learners actively construct their own understanding of the world through experiences and reflection.</p> <p>Emphasizes hands-on activities, collaborative learning, and inquiry-based approaches.</p>	<p>Active learning</p> <p>Scaffolding</p> <p>Social interaction</p>	<p>Hands-On Experience</p> <p>Reflective Practice</p> <p>Mentorship and Collaboration</p>
<b>Socio-cultural Theory</b>	<p>Learning occurs through participation in social activities and is influenced by cultural norms, values, and practices.</p> <p>Emphasizes the role of social interactions and cultural contexts in learning.</p>	<p>Modelling</p> <p>Imitation</p> <p>Observational learning</p> <p>Vicarious reinforcement</p>	<p>Observation and Modelling</p> <p>Simulation and Role-Playing</p> <p>Feedback and Self-Efficacy</p>
<b>Humanism</b>	<p>It focuses on personal development, self-directed learning, and fulfilling one's unique potential.</p> <p>Emphasizes the individual's potential for growth and self-actualization.</p>	<p>Student-centred learning</p> <p>Motivation through needs fulfilment</p>	<p>Personalized Learning</p> <p>Holistic Approach</p> <p>Supportive Environment</p>
<b>Connectivism</b>	<p>Learning occurs through networks of information and the connections formed within these networks.</p> <p>Particularly relevant in the digital age where information is abundant and constantly changing.</p>	<p>Knowledge creation through network connections</p> <p>Leverages digital tools and social networks</p>	<p>Digital Learning Resources</p> <p>Networked Learning</p> <p>Staying Current (CPD)</p>

### Conclusions

Each learning theory offers a different perspective on how learning occurs, and the theories often complement each other. It is essential to combine elements from multiple theories to create effective surgical teaching strategies tailored to different learning contexts.



**ABST-0666 - P189**  
**ePoster and Video Presentations**

**"an interesting laparoscopic complication" – stump the experts.**

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**Background**

Laparoscopy is the gold standard approach for most benign gynaecological surgeries including hysterectomy for benign cause. The surgical risks and complications are increased in cases when the body mass index is increased, or where the anatomy is distorted due to previous abdominopelvic surgeries, open surgery, or when there is history of severe endometriosis, previous tubo-ovarian abscess, or anatomical variants of the normality. The Clavien-Dindo scale is a widely used system for grading post-operative surgical complications. It classifies complications into grades based on the type of therapy needed to correct them, ranging from grade I to V. As an extension of the Clavien-Dindo system, designed to grade intra-operative complications, we can use the "ClassIntra classification" which categorizes events from class 0 (no deviation) to class V (patient death), reflecting the severity and impact on surgical management of the intra-operative complication.

Double ureter can be present in around 1 to 2% of patients and are more common, in women and in the right side

**Methods**

This is an interactive oral presentation showcasing a total laparoscopic hysterectomy in a 39-year-old patient with one previous caesarean section and an abnormal anatomy. The indication for the surgery was adenomyosis related pelvic pain. During the presentation I review the merits of The Clavien-Dindo Scale, ClassIntra classification, double ureter and the management of this particular case.

Formal consent for publication and presentation was obtained from the patient.

**Results**

Video example of an anatomical variant resulting in ClassIntra Grade 2 complication.

**Conclusions**

Anatomical variants have a variable presentation and can lead to intra and post operative complications. Sharing this in an educational manner helps surgeons to think out of the box and be more attentive to peculiar cases.

**Comparative life cycle assessment of disposable and reusable absorbent mats: Paving the way for informed decision-making to promote sustainable healthcare practices**

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**Background**

Absorbent mats are essential for upholding hygiene standards and cleanliness in healthcare by efficiently collecting and containing patient bodily fluids. However, their widespread use, particularly in disposable form, significantly contributes to the environmental footprint of the healthcare sector. In the Netherlands, approximately 23 million absorbent mats are utilized annually, with obstetric care being the largest consumer. Additionally, operating rooms (ORs) heavily rely on these mats, often for unintended purposes such as floor cleaning or providing comfort under extremities on operating tables. This non-essential usage has adverse environmental implications.

Addressing this issue necessitates informed decision-making. However, current data on the environmental impact of absorbent mats are scarce, impeding efforts to adopt environmentally sustainable practices. This study seeks to bridge this gap by conducting a comprehensive Life Cycle Assessment (LCA) of both disposable and reusable absorbent mats, assessing their environmental impact throughout various stages of their life cycle.

**Methods**

We conducted a cradle-to-grave LCA using the ReCiPe impact assessment methods to compare and evaluate three different disposable absorbent mats and one reusable absorbent mat. Eighteen environmental metrics were assessed to identify major contributors to their environmental impact. A sensitivity analysis was used to determine the robustness of the LCA, and other impact assessment methods (CML and EF3.1).

**Results**

The findings indicate that reusable absorbent mats exhibit a lower environmental impact than disposable ones across fifteen out of eighteen environmental metrics. Specifically, the carbon footprint of the reusable mat is 4.5 times lower (60 grams CO<sub>2</sub>-equivalents) than that of the disposable mat with high absorbency (270 grams CO<sub>2</sub>-equivalents). Additionally, the mat with low absorbency has a carbon footprint of 200 grams CO<sub>2</sub>-equivalents, while the biodegradable mat has a carbon footprint of 150 grams CO<sub>2</sub>-equivalents. Regarding carbon footprint, the use stage predominantly contributes to the environmental impact of reusable mats, mainly through the washing process. Conversely, material production and manufacturing play significant roles in the case of disposable mats.

**Conclusions**

The healthcare sector's environmental pollution has detrimental effects on society's health. The operating room (OR), known for its high resource consumption, should prioritize minimizing its environmental impact. To achieve this, embracing a circular approach is paramount. This strategy emphasizes reducing raw material consumption as a primary goal. The initial step involves refusing refraining from using something unless absolutely necessary, followed by reduction, redesign, reuse, repair, refurbishment, remanufacturing, repurposing, recycling, and recovery.

Initially, it's imperative to cease using absorbent mats for unintended purposes, although absorbing bodily fluids remains essential. A viable solution is the utilization of reusable absorbent mats, ensuring patient safety. Our study underscores the importance of transitioning to reusable absorbent mats to reduce the healthcare sector's environmental impact. In conclusion, these results provide valuable insights for hospitals and policymakers striving to implement environmentally sustainable practices in healthcare.

**Strategies used by surgery residents to gain autonomy in the operating room: a qualitative study**

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**Background**

Companionship in the operating room (OR) remains the core part of surgical training. During this process trainees are granted increasing levels of autonomy, under the senior surgeon's responsibility. Hence, getting as many companionship' opportunities as possible is a crucial issue for trainees. The aim of our study was to better understand strategies used by surgery residents to gain autonomy in the operating room.

**Methods**

In this qualitative study based on the Grounded Theory, semi-structured interviews were conducted with residents from three surgical specialties: gynaecology, digestive surgery and urology. The interviews were coded and analysed gradually during the data collection. Template analysis methodology was employed to develop an explanatory model to see a theory emerge on the strategies implemented by the resident.

**Results**

Nine trainees from 7 French university hospitals were included. There were 3 residents from each specialty. Participants were between in the 2<sup>nd</sup> to 4<sup>th</sup> year of training. Three major themes emerged from interviews: the preliminary work before the procedure, the relationship with the senior and the opportunistic choice of favourable circumstances. Every identified theme increased the odds of gaining autonomy: theoretical preparation, practical training outside of the OR, active help and observation in the operating room, establishment of a strong relationship with the senior to favour entrustment, operative list adapted to their learning curve, time spent in the OR.

**Conclusions**

This study highlighted that the relationship with the senior surgeon remains a key element to get companionship opportunities and autonomy. In parallel, residents develop proactive strategies which are based on optimal training prior to surgery, demonstration of knowledge and motivation to the senior surgeon, while searching for ideal circumstances allowing companionship opportunities.

### Assessing and addressing laparoscopic training needs: Insights from a survey of gynaecology trainees

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#### Background

The RCOG (Royal College of Obstetricians & Gynaecologists) Matrix of Progression has clear competency requirements for trainees of different levels. Focusing on laparoscopic skills, trainees at ST 4 level are expected to be competent in basic diagnostic laparoscopy, trainees ST 5 level and above are expected to be competent in carrying out simple operative laparoscopy while ST 7 level and above should be competent in carrying out more complex laparoscopic procedures (e.g. laparoscopic management of ectopic pregnancy and ovarian cystectomy).

To facilitate skill and confidence in carrying out these procedures, gynaecology trainees should be proficient in their laparoscopic surgical skills.

This survey aimed to evaluate the baseline competency levels of gynaecology trainees in laparoscopic skills and identify specific learning needs to inform the development of targeted training course in laparoscopy aimed at bridging identified knowledge and skill gaps.

#### Methods

A Laparoscopic skills course was proposed and advertised to gynaecology trainees. Prior to the course, a survey was distributed to gauge trainees' baseline competency levels and learning needs. The results of the survey were analysed to inform the design of the laparoscopic course.

#### Results

The survey received responses from 23 participants, including senior trainees (ST6-8) and junior trainees (ST5 and below).

Among senior trainees, only 31% felt competent in laparoscopic surgical skills, with notable deficits in needle loading (62%), instrument manipulation (69%), and knot-tying (77%).

Junior trainees reported no feelings of competency in laparoscopic skills.

#### Conclusions

The survey findings underscore the need for focused training initiatives to address the substantial gaps in laparoscopic skills among gynaecology trainees. With only 31% of senior trainees reporting competency in laparoscopic surgical skills, and junior trainees expressing a lack of confidence in this domain, it is evident that current training efforts may be insufficient.

These results emphasise the urgency of implementing tailored educational interventions, such as the Laparoscopic suturing course developed in response to the identified needs. The course incorporated theoretical instructions followed by hands-on practical sessions on needle loading, laparoscopic suturing and intracorporeal and extracorporeal knot-tying techniques and aimed to provide trainees with the necessary tools and confidence to navigate complex laparoscopic procedures effectively.

Moving forward, ongoing evaluation and refinement of training programs will be essential to ensure that trainees receive comprehensive and effective preparation for laparoscopic surgery.

### Increasing exposure to Laparoscopic Gynaecological Training in the Northwest of England: A Trainee-led initiative

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#### Background

There has been a multifaceted decline in operative opportunities for trainees in Obstetrics & Gynaecology. Trainees have to overcome the steep learning curve of laparoscopic surgery in the context of reduced theatre exposure, complex surgical cases and the emergence of improving non-surgical management of gynaecological patients. A trainee-led laparoscopy club was therefore introduced to increase exposure and confidence of trainees in the operating theatre.

#### Methods

A 10-week multi-centre, weekday evenings, simulated laparoscopy club was run by the Northwest Trainees' committee over four months, with pre-registration requirement, which ensures sufficient exposure and increased ability to receive individualised consultant feedback. High-fidelity training models and validated tasks were used in an ascending level of difficulty covering skills such as dissection, haemostasis, suturing and procedures covered by the RCOG training matrix. Two sessions covered bowel and urological complications of gynaecological surgery and were facilitated by general surgeons and a urologist.

#### Results

Eighty (80) trainees registered their interest to attend the laparoscopy clubs, of which 40 (50%) attended at least 1 session and 23 of 40 (58%) attended two or more sessions. Over 70% of attendees (32 of 40) were middle-grade trainees (Specialty Trainees in years 3-5), while the remaining were Specialty trainees in years 1-2 and 6-7.

On-call commitments (32%), challenging commute (26%) and wanting to use study leave allowance (20%) were some of the reasons for the inability to attend the laparoscopy clubs.

Feedback showed that 36 of 40 trainees (90%) reported improved laparoscopic skills and operating theatre confidence. The inter-specialty sessions had 62.5% attendance and 100% of the attendees found the sessions useful.

#### Conclusions

Improving laparoscopic skills requires repetition and feedback. The increase in trainees perceived laparoscopic skills and confidence could be due to systematic practice and consultant feedback. Though not a substitute for real-life theatre exposure, the laparoscopy club could reduce the learning curve with gaining proficiency in laparoscopic skills.

**ABST-0555 - P314**

**ePoster and Video Presentations**

**3D versus 4K laparoscopic vaginal cuff closure after hysterectomy by surgeons in training: a prospective randomised trial**

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**Background**

Technological advances in visual systems have contributed to overcome the limitations in spatial perception of minimally invasive techniques. To date, there is a lack of literature on the advantages of 3D vision systems over 4K in laparoscopic surgery, although benefits have been observed in the training setting. The aim of this study is to compare operating times, perioperative outcomes, and task achievement using 3D and 4K vision systems for vaginal cuff closure performed by residents during total laparoscopic hysterectomy (TLH). All surgeons in training have obtained the Gynaecological Endoscopic Surgical Education and Assessment (GESEA) certificate.

**Methods**

It is a prospective randomised trial (NCT04637022). Women undergoing total hysterectomies for benign conditions between January 2021 and November 2023 were enrolled in the study. Vaginal cuff closures were performed by surgeons in training who had obtained the second level of the GESEA programme certificate.

**Results**

Fifty-four patients were enrolled. There were no statistically significant differences in time between 3D and 4K vision for vaginal cuff closure ( $p=0.918$ ). No statistically significant differences were observed for mean estimated blood loss (EBL) (overall:  $62.85 \pm 22.73\text{mL}$ ; 3D:  $65 \pm 24.83\text{mL}$ ; 4K:  $61.11 \pm 21.18$ ;  $p=0.556$ ) and median hospital stay ( $p=0.234$ ). Three non-severe intraoperative complications in the 3D group ( $p=0.048$ ) and three postoperative complications in the entire cohort ( $p=0.685$ ) were reported.

**Conclusions**

The operating time for vaginal cuff closure performed by trainee surgeons is comparable to 3D vision during conventional laparoscopy and 4K vision systems. The choice of surgical vision systems may be guided by a cost analysis and surgeon preferences.

**ABST-0700 - P345**

**ePoster and Video Presentations**

**Ex-vivo cattle uteri training model for advanced laparoscopic gynaecological training; A valuable addition to the hands-on training tools.**

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### **Background**

In recent years, due to reduced training opportunities, there is a need for creating training tools which are true to reality, easily available and ethically sourced.

We are proposing an ex-vivo training model of hands-on simulation training for advanced laparoscopic gynaecological surgery. We set up focused sessions with targeted exercises for bladder dissection, excision of peritoneal endometriosis, myomectomy, adhesiolysis, and hysterectomy.

### **Methods**

We used a cattle uteri animal specimen with bladder, ureters, parametrium, rectum, perineum and vagina prepared by Medical Meats. The specimen was fixed on a V-care uterine manipulator with sutures. A suitable industrial glue was used to re-create bladder adhesions, myomas with addition of turkey meat and endometriotic nodules.

Six trainees due to complete advanced gynaecology training module within the last 3 years of training were course candidates. They worked in groups of 2 to 1 tutor, using Karl Storz training laparoscopic boxes and monitors.

A short tutorial on bovine uteri anatomy was given prior to the hands-on session.

Feedback was collected anonymously using Microsoft Forms application. Feedback was given to trainees by Faculty based on observed performance and on reviewed recorded exercises.

### **Results**

All trainees agreed and strongly agreed that they felt more confident in approaching laparoscopic surgery. All trainees felt the practical session was well structured and organised.

All trainees either strongly agree or agreed that the model was suitable for practicing adhesiolysis, tissue handling, colpotomy and vault suturing.

### **Conclusions**

Ex-vivo bovine uteri specimen with bladder and rectum is cheap, easily reproducible and real life like model for advanced laparoscopic gynaecological training.

**ABST-0021 - P\*002**

**ePoster and Video Presentations**

**Incidence and risk factors for incidental discovery of preinvasive or invasive uterine lesions during sacrocolpopexy for genital prolapse.**

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**Background**

This study aimed to describe the rates of unanticipated premalignancy and malignancy at the time of hysterectomy performed for pelvic organ prolapse and to determine the risk factors for unanticipated pathology.

**Methods**

A retrospective monocentric study was conducted on all cases of sacrocolpopexy with supracervical or total hysterectomy performed for pelvic organ prolapse from 2010 to 2023. The collected data were analysed, including clinical history, diagnostic evaluations, surgical procedures performed, and histopathological findings.

**Results**

A total of 235 women were included in this study. All these patients had undergone a reassuring preoperative gynaecological assessment, including at least a cervical-vaginal smear and a pelvic ultrasound. Fifteen cases of simple endometrial hyperplasia with atypia, one endometrial carcinoma and 3 cyto-nuclear atypia of the tubal epithelium were found. The first two patients had undergone uterine morcellation without the use of an endobag. None of the patients required surgical re-intervention. No recurrence or malignant transformation was reported. Some risk factors for occult endometrial malignancy have been identified, such as older age, excessive BMI, and the presence of metrorrhagia in a postmenopausal patient.

**Conclusions**

In this study, the rates of unanticipated premalignant or malignant lesions at the time of hysterectomy performed for pelvic organ prolapse were 8,08% (19/235). Our results highlight the relevance of an optimal preoperative gynaecological assessment with particular attention to high-risk patients and emphasize the importance of avoiding intra-abdominal morcellation without the use of an endobag.



**Surgical management of ovarian cysts greater than 7cm at a UK University Hospital: A retrospective review at Leeds St James University Hospital**

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**Background**

To compare surgical approaches for ovarian cystectomy in cysts greater than 7cm, specifically laparoscopic versus open laparotomy.

Assess and compare the rates of postoperative complications between laparoscopic and open approach.

Identify the rate of unexpected histologically malignant diagnosis following elective surgery for suspected benign ovarian cysts.

**Methods**

A 3-year retrospective audit on the surgical management of ovarian cysts between December 2019- December 2021 was conducted. All cystectomies performed at Leeds St James University Hospital were identified using the electronic theatre record database. Inclusion criteria selected only preoperatively suspected benign ovarian cysts and cysts >7cm radiologically. The first 100 cases were selected for review.

**Results**

Cyst size ranged between 7cm to 30cm. The majority were between 7-10cm (60%). Larger cysts included: 10-15cm (27%), 15-20cm (10%) and 20-30cm (3%). Majority of patients were aged under 40(64%) and only 3 patients were postmenopausal (3%).

A laparoscopic approach was favoured and successfully completed in 84/100 cases (84%); this included 67 elective and 17 emergency cases. A planned laparotomy was used in 11/100 cases (11%); of which 9 were elective and 2 emergency cases. The rate of intra-operative laparoscopy converted to laparotomy was 6%. Surgical procedures undertaken with the laparoscopic approach in elective cases included: 58 laparoscopic cystectomies (87%), 1 bilateral cystectomy (1%), 6 unilateral salpingo-oophorectomies (9%), 1 bilateral salpingo-oophorectomy (1%) and 1 drainage of endometrioma with no cystectomy (1%). Reason for not performing just cystectomy included patients age, patients' choice, necrotic or nonviable appearance of ovary intra-operatively and difficult surgery due to adhesions.

In the laparotomy group, elective cases performed included 8 cystectomies (62%), 2 bilateral cystectomies (15%) and 3 unilateral salpingo-oophorectomies (8%). Opting for laparotomy was secondary to surgeons' operative preference or large solid cyst components.

Post operative complications for laparoscopic surgery were 5% and included wound or port site infection and port site haematoma. A single case of wound infection was recorded following laparotomy.

Unexpected histology rate was 2.5% (2 out 80 elective cases). Both these were borderline histology; there were no malignant histology diagnoses.

**Conclusions**

Cyst size was not the determining factor for deciding route of surgery, with laparoscopy emerging as the preferred approach in 84% of cases. This was consistent amongst elective and emergency cases. Laparoscopy had a low laparotomy conversion rate (6%). Reasons for intra-operative conversion included inability to remove specimen laparoscopically (requiring mini laparotomy) or intra-operative suspicion of malignancy to avoid surgical spill. Postoperative complications were low across both surgical approaches. No unexpected malignant histology was found, reflecting accurate local radiological assessment and preoperative multidisciplinary decisions regarding identification of benign cysts. Laparoscopic surgery is effective and safe in management of ovarian cysts. Future practice is likely to support rising trends toward laparoscopic surgery with an increasing number of experienced and advanced laparoscopic surgeons.

**A case report of haemoperitoneum due to spontaneous rupture of subserosal fibroid surface vessel**

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**Background**

We present a case of a non-pregnant premenopausal female patient who presented with abdominal pain and haemoperitoneum secondary to a spontaneous rupture of a vessel covering the surface of a subserosal myoma, which is a rare but important cause of massive intra-abdominal bleeding.

**Methods**

Patient case notes in addition to intra-operative findings and images were reviewed. A literature review regarding cases of spontaneous rupture of vessels covering a myoma as a cause of massive intra-abdominal bleeding was carried out.

**Results**

We present a case of a non-pregnant premenopausal female patient who presented with abdominal pain and a computerised tomography (CT) abdomen/pelvis scan confirming a large volume haemoperitoneum, the distribution suggesting a gynaecological origin.

The patient became unstable, and a diagnostic laparoscopy was carried out jointly under the colorectal and gynaecology teams. One unit of blood and intravenous tranexamic acid was given.

During the laparoscopy, a total of 1400ml intra-peritoneal blood was washed out and a large subserosal fibroid on the posterior surface of the body of the uterus which had an actively bleeding blood vessel and marked vascularisation on its surface was found. The uterine fibroid bleeding point was arrested using a combination of the Ligasure and diathermy. Once controlled, Floseal® followed by Tisseel were applied to the bleeding area as a haemostatic blanket.

The patient was stable post-operatively in the intensive care unit and was discharged on day three post-op. The follow-up plan is for a pelvic ultrasound scan to reassess the fibroid and gynaecology clinic consultation.

**Conclusions**

In conclusion, spontaneous rupture of a vessel covering the surface of a subserosal myoma is a rare but important cause of massive intra-abdominal bleeding and should be considered. Treatment includes conservative management with haemostatic adjuncts, and definitive surgery including myomectomy and hysterectomy. A patient's preference to conserve fertility should be taken into account when making this decision if possible.

ABST-0096 - P070

ePoster and Video Presentations

### Comparison of Surgical Outcomes Between Single-Port Laparoscopic Surgery and Da Vinci Single-Port Robotic Surgery

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#### Background

The aim of this study is to compare the surgical outcomes of single-port laparoscopic surgery (SPLS) and single-port robotic surgery (SPRS).

#### Methods

We retrospectively analysed patients who underwent hysterectomy, ovarian cystectomy, or myomectomy with SPLS or SPRS from January 2020 to July, 2022. Statistical analysis was performed using SPSS chi-square test and student's t-test.

#### Results

A total of 566 surgeries included single-port laparoscopic hysterectomy (SPLH; n=148), single-port robotic hysterectomy (SPRH; n=35), single-port laparoscopic ovarian cystectomy (SPLC; n=207), single-port robotic ovarian cystectomy (SPRC; n=108), single-port laparoscopic myomectomy (SPLM; n=12), and single-port robotic myomectomy (SPRM; n=56). The SPRH, SPRC, and SPRM group had shorter operation time than the SPLS group, although the results were not statistically significant (SPRH vs SPLH,  $p=0.134$ ; SPRC vs SPLC,  $p=0.098$ ; SPRM vs SPLM,  $p=0.202$ ). Incisional hernia occurred as postoperative complication in two patients only in the SPLH group. Postoperative Hb changes were lower in the SPRC and SPRM groups than in the SPLC and SPLM groups (SPRC vs SPLC,  $p=0.023$ ; SPRM vs SPLM,  $p=0.010$ ).

#### Conclusions

Our study demonstrated that the SPRS had comparable surgical outcomes compared to the SPLS. Therefore, the SPRS should be considered as a feasible and safe option in gynaecologic patients.

### Heterotopic pregnancy with intrauterine 7 weeks twin implantation

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#### Background

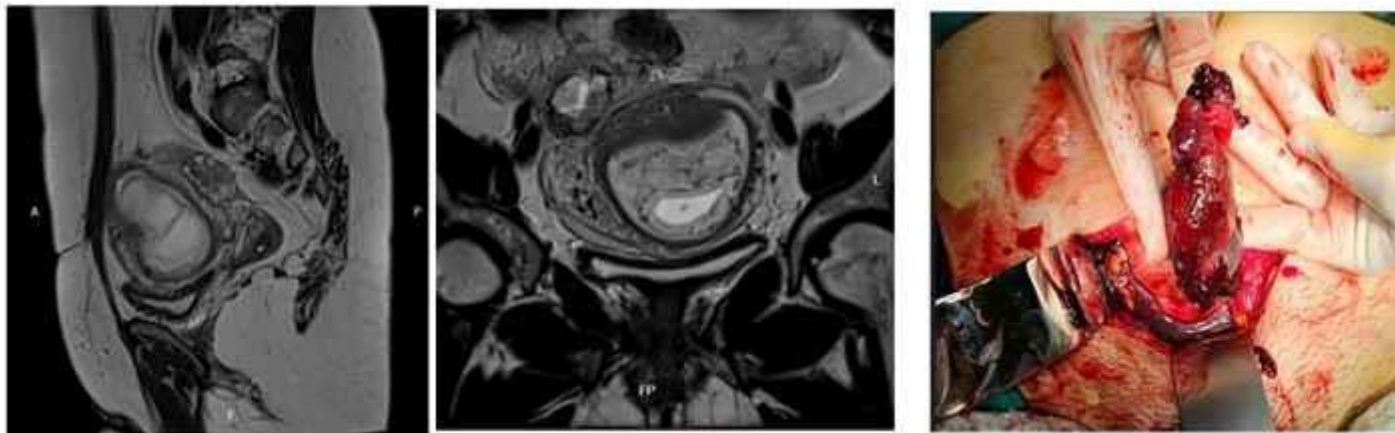
Heterotopic pregnancy (HP) is a rare medical condition, with an incidence of around 1 in 30,000. It is more common around 1 in 100 with assisted reproductive techniques (ART). The condition can be challenging to diagnose and is often underdiagnosed due to the presence of intrauterine implantations.

#### Methods

A 32-year-old G3A1P1 woman with 7 weeks of pregnancy who was hospitalized because of the provisional diagnosis of epiploic appendicitis by general surgery service was referred for foetal evaluation. The patient was prescribed 1000 mg of amoxicillin twice a day. She had previously 4 times clomiphene citrate treatment and had been experiencing vaginal bleeding since the beginning of the pregnancy and was receiving intravaginal 200 mg micronized progesterone treatment twice a day. The patient had dichorionic diamniotic twins, and both foetuses had cardiac activity. The crown-rump lengths (CRL) of both foetuses measured 7mm, which indicates a gestation of 6 weeks and 6 days. There was a heterogeneous mass measuring approximately 35x30 cm in the right adnexa and free fluid in the pouch of Douglas. On the non-contrast pelvic MRI scan, a suspicious solid mass was found in the right adnexal area. It was suspected to be either an inflamed epiploic area or tubal torsion, but it could not be diagnosed (Figure 1A,1B).

The patient experienced severe abdominal pain and a rebound in the right lower quadrant. A diagnostic laparotomy was performed to investigate the situation. Since the pregnancy was less than 8 weeks, the medical team suggested a diagnostic laparotomy with spinal anaesthesia. Due to massive intra-abdominal haemorrhage and a ruptured ectopic area measuring approximately 4 cm in the right tube, a right-sided salpingectomy was performed (Figure 1C).

Figure 1: A: The sagittal section on MRI scan B: The axial section on MRI scan C: Intraoperative view of ruptured ectopic area



#### Results

Due to the low possibility of heterotopic twin pregnancy, the MRI scan was interpreted as inflamed epiploic tissue and intraoperative diagnosis could be made as a result of ruptured tubal pregnancy. She had been diagnosed with ultrasonographic acute appendicitis and was followed up by the general surgery clinic for a week. Because of an increase in free fluid in the pouch of Douglas ultrasonographically and tenderness in the right lower quadrant with rebound, the decision for laparotomy was made on time. Vaginal bleeding ceased immediately after surgery and both foetuses had cardiac activity. The patient was discharged from the hospital in full recovery on the 2nd postoperative day.

#### Conclusions

The use of assisted reproductive technology (ART) increases the occurrence of heterotopic pregnancies. It is crucial to evaluate the adnexal region using ultrasonography for patients with risk factors. Keeping heterotopic pregnancy in mind when diagnosing unexplained lower quadrant pain can lead to early detection and treatment.

## **ABST-0140 - P140**

### **ePoster and Video Presentations**

#### **Ovarian Fossa, not just a crater!**

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#### **Background**

Laparoscopic surgery is distinguished in its ability to provide full exploration of the whole peritoneal cavity, even better than laparotomy. The Ovarian fossa, being hidden beneath the ovary, and sometimes difficult to expose, is not uncommonly overlooked. However, this locus can be home to some important pathologies that often need some sort of intervention.

#### **Methods**

We hereby report our experience in a large number of cases, where attention to inspection of the ovarian fossa revealed significant findings. Additionally, we demonstrate beneficial techniques to help explore this anatomical site.

#### **Results**

Different sorts of pathologies can be encountered in the ovarian fossa. Among these, are endometriotic lesions, adhesions, Allen-Master's syndrome, peritoneal defects and pockets, and many other lesions.

#### **Conclusions**

Careful attention to inspection and exploration of the ovarian fossa may reveal relevant pathologies that would have otherwise been overlooked, which negatively impacts the patients' outcomes and deprives them of the explorative advantage of laparoscopy.

ABST-0086 - P141

ePoster and Video Presentations

### **Leiomyoma extraction by in bag coring through lower laparoscopy port: A time and cost saving technique**

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#### **Background**

After laparoscopic myomectomy, leiomyoma extraction can be achieved through several approaches. These include morcellation using an electromechanical morcellator, either within a containment bag or without, manual morcellation or coring through a laparotomy incision, or through the vaginal route via the pouch of Douglas.

In young, unmarried girls, the vaginal route may not be preferred, and using a mini-laparotomy for tissue extraction can add to abdominal scarring. Intraabdominal morcellation poses risks such as the spread of ordinary leiomyoma implants, stump, or undiagnosed leiomyosarcoma. Using a containment bag for morcellation increases the cost and duration of surgery, demands greater expertise, is unavailable in many settings, and can limit surgical options.

#### **Methods**

This a series of cases where lateral port leiomyoma extraction was performed. The cost-effective bag was fashioned from a sterile urine bag. The cut edges were circumferentially sutured using polypropylene/nylon. The rolled urobag was introduced through the 10mm port. Once the myoma was placed within it, the suture ends were extruded through the left lower port after extending it to 2cm. Tissue extraction was performed using simple Alli's tissue forceps and

scalpel.



**Results**

The standard procedure usually lasts 10-15 minutes for myomas up to 15 cm in size, the mere placement of the morcellator bag extends the operation by an additional 15 minutes. Accounting for the electromechanical morcellation time, the complete extraction process can span between 30 and 40 minutes. An important aspect to consider is safeguarding the intraabdominal organs against morcellator-related injuries.

The port established using the morcellator trocar ranges from 18mm to 25mm, leading to comparable outcomes regarding incision-related factors during both postoperative pain and subsequent healing processes, including scar formation.

**Conclusions**

In low-resource settings, leiomyoma extraction by in-bag (urobag) via coring through the lower laparoscopy port is a safe, time-saving, and cost-effective method that can be easily practiced.



**Patient reported outcomes (symptoms and Quality of life) after ultrasound-guided radiofrequency ablation (Sonata) of their symptomatic uterine fibroids.**

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**Background**

Ultrasound-guided transcervical radiofrequency ablation (Sonata) is a minimally invasive treatment for symptomatic uterine fibroids which can be completed either under general anaesthetic or in the outpatient setting. By heating the fibroid to 105 degrees Celsius, it denatures the proteins, causing fibroid shrinkage.

Our purpose is to determine the outcomes, positive or negative, Sonata has on patients treated for symptomatic uterine fibroids, with regards to both their symptomatology and quality of life (QOL).

**Methods**

All patients treated with Sonata were included in the study. Thirty-three completed treatment between 30/3/23 and 7/2/24, and were followed up at 3-, 6- and 9-months post procedure. Each patient was asked to complete The Validated Uterine Fibroid Symptom and health-related Quality of Life Questionnaire, to collect patient reported outcomes, before the intervention and at each follow up. Each question gave a score out of 5 with a total score of 130. The higher the score, the worse the patient's quality of life or symptoms. Data was tabulated and analysed.

**Results**

Of the 33 patients treated, 22 had the procedure in the outpatient setting and 11 under general anaesthetic in the day surgical setting. The average age was 45.6, the average number of fibroids treated per patient was 2 (mode/median 1, range 1-7), with an average of 3 ablations per procedure (range 1-8). Twenty-five patient completed the 3 months follow-up, with 21 completing the follow-up questionnaire, 18 have reached the 6 month post intervention mark, with 13 completing the questionnaire, and 7 are now 9 months post Sonata, with 5 completing the questionnaire.

The average overall score reduced with numbers of months completed post procedure. At baseline the average score was 91.9, at 3 months 67.4, 6 months 54.2 and at 9 months 33.8. When comparing each follow-up point with baseline results, at 3 months, 81% reported improvements, 14% no change and 5% deterioration in symptoms and QOL. At 6 months 92% reported improvements and 8% reported deteriorations, and finally at 9 months post sonata 100% reported improvements in both symptoms and QOL.

In comparison to baseline, at 3 months post sonata treatment there was a mean improvement in symptom score of 28% ( $P < 0.0001$ ) and QOL score of 29% ( $P < 0.001$ ). Overall, 77% experienced an improvement in symptoms and QOL.

**Conclusions**

We report significant improvements in symptoms and QOL following treatment of uterine fibroids with ultrasound-guided transcervical radiofrequency. Moreover, when compared to recommended alternatives such as hysterectomy or myomectomy, Sonata enables the additional benefits of cost savings through reduced procedure time, reduced hospital stay and omits the need for anaesthetics and theatre staff when completed in the outpatient setting. Sonata should therefore be offered to clinically suitable patients who want a minimally invasive alternative to hysterectomy or myomectomy.

### TULIPES - TUBal Ligation Per different Endoscopic routes and Sexuality

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#### Background

Tubal ligation is mainly performed laparoscopically. Since 2012, a new surgical approach has been developed combining classic laparoscopy with the vaginal route: vNOTES (vaginal Natural Orifice Transluminal Endoscopic Surgery). Its benefits include no skin scars, hematomas or abscesses on the trocar orifices as well as a probable reduction in post-operative pain. Its feasibility and its safety have already been established, as well as its indications and contraindications. However, it seems necessary to continue carrying out new randomized studies in order to demonstrate that there is a reduction in early postoperative pain and that a small vaginal scar does not modify the quality of sexual life compared to laparoscopy.

TULIPES assesses the quality of sexual life at 6 months as well as early postoperative pain after tubal ligation, depending on whether it is performed by abdominal laparoscopy or by vNOTES, carrying out a non-inferiority trial.

#### Methods

TULIPE is a multicentre therapeutic non-inferiority prospective randomized single-blind trial with two parallel arms, comparing two surgical techniques (vNOTES and abdominal laparoscopy) for the management of tubal sterilization. Patients must be of legal age and sexually active at the time of inclusion, and they must respect the 4 months reflection between the request and the surgery. The exclusion criteria are those for vNOTES contraindications.

Evaluation of the quality of sexual life according to the score obtained on the FSFI-19 questionnaire at 6 months post-operatively compared to pre-operatively. Postoperative pain is assessed by the Visual Analogue Scale at H2, H6, H24, D3 and D7.

#### Results

Our study shows a significant reduction in early postoperative pain during tubal ligations using vNOTES compared to the traditional laparoscopy group. This had already been demonstrated after cholecystectomy by Benhidjeb et al. However, this study lacked power as it was open and used a single-center and single-surgeon experience.

#### Conclusions

This data proves the benefit of vNOTES in current practice for benign gynaecological pathologies and can reassure patients. A recent Chinese single-centre non-randomized study carried out by Xu et al. that evaluated sexuality after adnexal surgery by vNOTES did not show any significant difference before and after surgery by vNOTES compared to standard laparoscopy. Our analysis on sexuality is still in progress. The TULIPE study presents the strength of being multicentre and single blind.

## Holistic Surgical Management of Fibroid and Umbilical Hernia, with Mesenteric Vein Congestion through Multidisciplinary Collaboration

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### Background

Uterine fibroids are the most common benign pelvic tumours in women worldwide. They may occur as single or multiple lesions varying in size and location. Clinical presentation can vary depending on what symptoms the patient presents with. We describe an acute presentation where a co-ordinated multidisciplinary approach was required involving joint surgery for uterine fibroids, umbilical hernia, and complex internal hernias with mesenteric vein varices caused by fibroid compression on the small bowel mesentery.

### Methods

We present the case of a 39-year-old nulliparous woman who experienced abdominal pain and vomiting. An abdominal CT scan revealed a large pedunculated uterine fibroid and a mesenteric vasculature swirl pattern, suggesting possible small bowel malrotation with an internal hernia.

The CT scan also showed enlarged, tortuous small bowel mesenteric veins. She had a prior admission for small bowel obstruction which was treated conservatively. The gynaecology team was consulted regarding the management of her uterine fibroids. Following a joint review by both teams, a consensus was reached for a joint operation.

### Results

The patient subsequently had a midline laparotomy, para umbilical hernia reduction, detorsion of pedunculated fibroid and multiple uterine myomectomies, reduction of ileocaecal knotting/internal hernia, widening of the route of mesentery and closure of the laparotomy.

A lower midline laparotomy was performed, followed by the opening of the hernia sac and reduction of the omentum. Extensive adhesiolysis was carried out to free the pedunculated fibroid from small bowel adhesions. Terlipressin was infiltrated into the broad ligament of the fibroid and the pedunculated fibroid stalk. A uterine tourniquet was applied for 30 minutes before performing myomectomy. The endometrial cavity was breached during the myomectomy, and this was closed with Monocryl 2.0. After the myomectomy, the tourniquet was released.

Operative findings included a large, 10 cm pedunculated fibroid entrapped by the small bowel mesentery, along with additional fibroids in the anterior and posterior uterine walls. There were significant mesenteric varices, likely secondary to the fibroid compressing the mesentery. Ileocaecal knotting and the internal hernia were corrected.

Transversus Abdominis Plane (TAP) blocks with 0.5% Bupivacaine, were administered for pain management before closure. The rectus sheath, fat layer, and skin were subsequently closed. Postoperatively, the patient was kept nil by mouth for 24 hours, with a nasogastric tube inserted for 48 hours. The patient recovered well, and a follow-up plan was established.

### Conclusions

This case emphasises the successful outcomes achieved through interdisciplinary teamwork, efficient problem-solving, and patient-centred care. The collaborative approach led to resolving multiple medical issues in a single operation, highlighting the benefits of effective communication, cohesive teamwork, and leadership in surgical and gynaecological settings. The patient experienced significant relief and a swift recovery, demonstrating the positive impact of streamlined care on patient well-being and the overall recovery process.

### Laparoscopic adnexal mass removal via transumbilical and transvaginal methods

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#### **Background**

Adnexal masses represent a prevalent issue in the field of gynaecology. The utilization of minimally invasive surgery (MIS) for addressing ovarian pathologies has become widespread. This research aimed to compare the efficacy of the transumbilical (TU) and transvaginal (TV) approaches in removing adnexal masses from the abdominal cavity.

#### **Methods**

Retrospective analysis was conducted on data from 131 female patients who underwent laparoscopic surgery for the excision of benign adnexal masses at three medical facilities from January 2016 to December 2023. Among these patients, 82 underwent mass removal through the TU route, while 49 opted for the TV route.

#### **Results**

Parameters such as age, BMI, parity, size of the ovarian mass, menopausal status, sampling duration, operation time, and procedural type exhibited no significant variations between the TU and TV groups. The mean specimen retrieval times were  $9.0 \pm 2.2$  minutes for the TU group and  $9.8 \pm 2.5$  minutes for the TV group ( $P = 0.052$ ). Cystectomy was performed in 85.4% of cases in the TU group and 75.5% in the TV group. Furthermore, Visual Analog Scale (VAS) scores at 1., 3., and 24. hours post-surgery were lower in the TV group compared to the TU group.

#### **Conclusions**

In summary, the transvaginal approach for specimen retrieval during laparoscopic surgery may lead to reduced pain in the early postoperative phase and decreased dyspareunia in the later period, all while maintaining the vaginal length.

**The contribution of 18F-FDG-PET/MRI imaging in targeting preoperative endometriotic lesions. A prospective study.**

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**Background**

Contribution of 18F-FDG-PET/CT and PET/MRI for the detection of endometriotic lesions compared to the standard assessment (transvaginal ultrasound and pelvic MRI). Potential impact of 18F-FDG PET/CT and PET/MRI on the therapeutic decision. Correlation between the PET/MRI aspect and the observations made by the surgeon during his intervention. Correlation between the PET/MRI aspect and the data from the anatomopathology and the anti-CD10 immunohistochemical analysis, RE, PR and markers of inflammation.

**Methods**

After a clinical examination suspecting deep endometriosis and a standard assessment by transvaginal ultrasound, an abdominopelvic 18F-FDG PET / MRI imaging has been performed. Metabolic imaging was performed during the painful period (during menstruation). The distribution and localization of FDG-greedy abnormalities on PET/MR images was studied and visual and quantitative analyses of tracer uptake in lesions suspected of endometriosis were performed. The results of the standard imaging assessment and the PET/MRI will be discussed during the multidisciplinary meeting (endometriosis tour) preoperatively. Inclusion criteria: Clinical suspicion of deep endometriosis with the presence on palpation of a recto-(vesico)-vaginal nodule; indication for pelvic MRI; indication for laparoscopy; patients  $\geq$  18 years old; signature of the informed consent by the patients. Duration: 3 years, the inclusion of patients will stop when we reach the end of the inclusion period. A duration of 3 years will allow the recruitment of at least 50 patients

**Results**

Ethics committee approval was obtained in October 2022.

Five patients were included, and a PET/MRI exam was performed for all of them. For all of them the PET/MRI exam revealed positivity for deep infiltrating endometriosis.

We show the results of one of these five patients who present a nodule of the recto-vaginal lamina and a nodule of the vesico-uterine fold. (Figure 1-2).

**Conclusions**

We decided to include 10 patients in the pilot study and to use the classic PET-CT tracer, 18-FDG. If after these first 10 patients, we detect a weak positivity and specificity of the tracer, we will, for the following patients, use the 68Ga-FAPI (fibroblast-activation protein inhibitor). An interesting perspective could be the use of the tracer 68Ga-FAPI, which is currently used for the detection of tumoral tissue. Fibroblast activating protein (FAP) is a type-II transmembrane serine protease belonging to the dipeptidyl peptidase 4 (DPP4) family. FAP is mainly expressed in activated fibroblasts such as cancer-associated fibroblasts (CAF) of various types of cancers. FAP expression in CAFs is associated with tumour cell migration, invasion, and angiogenesis. FAP is expressed not only in CAFs but also in most activated fibroblasts involved in various processes such as healing, scarring, fibrosis or inflammation. Moreover, FAP is expressed to some extent in neovascular, endothelial, malignant epithelial, embryological and immunological cells.

## Endometriosis and a Comorbid mental health Disorder: A Systematic Review

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### Background

Patients with endometriosis have a high prevalence of Psychiatric symptoms. In addition to the physical symptoms, patients with endometriosis report a lower health-related quality of life when compared to healthy people.

Aim of this study was to investigate changes in health-related quality of life (HRQoL) in individuals with endometriosis and a mental health disorder.

### Methods

PubMed and the Cochrane Database of Systematic Reviews were searched for relevant articles up to 1st January 2024. The Search strategy was implemented in 6 databases. All studies were independently screened in accordance with the inclusion criteria. Records identified through database searching were n= 380. Records after duplicate removed 122. Records screened were 102. Full text articles assessed for eligibility were 32. Full text articles excluded were 28. Four studies were included in analysis.

### Results

1. 1. Sullivan-Mayers et al. 2021 found that depression was significantly associated with higher self-rated endometriosis severity, and both anxiety and depression were associated with a greater number of endometriosis symptoms.
2. 2. Muharram et al. 2022 found that the HRQoL score were significantly higher, indicating worse HRQoL, in endometriosis patients with any of the fourteen psychiatric disorders considered than in patients without a psychiatric disorder: 96.47 (+/-28.37) and 72.41 (+/- 29.43), respectively (p<0.001).
3. 3. Gonzalez-Echevarria et al. 2018 found a strong correlation between depression and worse HRQoL (r=0.70, p<0.01), and a moderate correlation between anxiety and worse HRQoL (r=0.55, p<0.01)
4. 4. Marki et al.2017 found a moderate correlation between worse HRQoL and both depression (r=0.54, p<0.001) and anxiety (r=0.60, p<0.001); these correlation coefficients were negative as this study utilized a scale in which a lower value indicated worse HRQoL.

### Conclusions

Results suggests that HRQoL in patients with endometriosis is negatively impacted by

1. 1. Depression
2. 2. Anxiety
3. 3. Potentially other psychiatric disorders

Further research is required, and future studies should aim to report standard outcomes that can be statistically assessed.

**Diagnostics and treatment of bladder endometriosis - case presentation.**

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**Background**

Urinary tract endometriosis is rare among women diagnosed with pelvic endometriosis, it affects approximately 1 percent, most commonly bladder. Bladder endometriosis (BE) is lesions that infiltrates the detrusor muscle. Usually patients present with dysuria, lower urinary tract symptoms, haematuria and urinary tract infection. BE is diagnosed by biopsy, visualisation of lesions by cystoscopy. Biopsy is typically necessary to exclude malignancy. Treatment of BE is medical or surgical, the aim is to resolve symptoms.

**Methods**

A 30-year-old nulliparous woman presented to an outpatient clinic with complaints about progressive lower abdominal pain, haematuria episodes, dyspareunia and dysmenorrhea experienced during the last 2 years. At ob-gyn visit an ultrasound examination showed retrocervical endometriotic nodule 23mm and irregular dense, vascularized 35x16mm nodule with invasion in bladder posterior wall. Cystoscopy with transurethral biopsy was done, histopathological examination reported BE and chronic cystitis. A cytological examination of the urine was also performed, no malignant cells were found. MRI revealed characteristic changes of deep infiltrative endometriosis and a nodule 30x35x20mm between uterus and bladder, which invades bladder posterior wall. 5 months prior to operative therapy, patient used hormonal therapy *Visannette* (Dienogest) with only a little improvement of symptoms, haematuria still continued. During operation diaphragm, peritoneum in the abdomen cavity, both ovaries, tubes, small and large intestines were without visual changes. *Plica vesicouterina*(PV) was in tight adhesions with anterior uterus wall up to fundus. Endometriosis infiltration was confirmed in Douglas pouch and upper 1/3 of the posterior vagina wall. Both ureters were not involved in the process. PV was separated from the front wall of the uterus till cervix, bladder dissection was done, Retzius space was opened, on posterior bladder wall endometriosis infiltrations were seen. Separately endometriosis foci were resected from bladder. An incision was made on bladder fundus, where nodule with invasion throughout the posterior wall was resected in the lines of healthy tissue with bilateral ostium visualisation. Bladder was sutured with separate intracorporeal ligatures and methylene blue was injected into the bladder cavity; no dye leak was observed. Additionally, peritonectomy in Douglas, bilateral endometriotic foci excision from lig. sacrouterine and nodule excision from back of the vagina without its opening were done. The rectum was not involved in the process.

**Results**

Patient was discharged on the 4th post operative day, the urinary catheter was removed after 2 weeks. After 4 weeks cystoscopy was done, no abnormalities were found. No peri-postoperative complications occurred. For now, the patient has no complaints about haematuria, dyspareunia and pain. The histopathological result confirmed the diagnosis of endometriosis.

**Conclusions**

Careful, successful diagnosis and treatment of BE can improve patients' quality of life and reduce symptoms. Postoperative outcomes reveal significant improvement of patient life, reducing symptoms. *Enzian* classification (P1O0/OT0/OA2B1/1C0Fa/b) matched with pre- and postoperative outcome.

**An exploration of body mass index, lifetime body shape, physical activity and figure descriptors and a diagnosis of endometriosis in 402 prospectively recruited symptomatic patients**

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**Background**

The exact aetiology and pathophysiology of endometriosis are not well understood. Numerous environmental and lifestyle risk factors have been identified including a lower body mass index (BMI). We have further examined this relationship including lifetime body shape, figure descriptors and physical activity.

**Methods**

402 consecutive patients age 18-49 attending their first laparoscopy for symptoms suspicious of endometriosis were prospectively recruited. BMI was calculated and participants completed the 'Personal information and lifestyle' section of the WERF EPQ-S.

**Results**

BMI was significantly different between cases and controls (24.7kg/m<sup>2</sup> vs. 27.2kg/m<sup>2</sup>,  $p < 0.00001$ ), ranges 25-30kg/m<sup>2</sup> and >30kg/m<sup>2</sup> gave odds ratios of 0.61 (95% CI 0.37-0.98,  $p = 0.044$ ) and 0.34 (0.19-0.57,  $p < 0.0001$ ) compared to normal BMI respectively. The odds of endometriosis decreased by 4.6% for every unit increase >25kg/m<sup>2</sup>. Slimmer body shape in teens and 20s gave odds ratios of 0.77 (0.64-0.93,  $p = 0.008$ ) and 0.75 (0.62-0.92,  $p = 0.006$ ) respectively, including in those with BMI >25kg/m<sup>2</sup> at the time of surgery. The figure descriptor "Pear" correlated most strongly with endometriosis OR 3.5 (1.15-10.6,  $p = 0.027$ ). Change in body shape or figure over preceding decade did not correlate with endometriosis at any age. Level of physical activity was independent of BMI ( $p = 0.328$ ) and did not correlate with a diagnosis of endometriosis ( $p = 0.434$ ). BMI did not correlate with site or severity of endometriosis (ovarian endometrioma  $p = 0.102$ , invasive endometriosis  $p = 0.369$ )

**Conclusions**

A lower BMI was strongly associated with a diagnosis but not severity of endometriosis. Slimmer body shape at adolescence and early 20s was associated with endometriosis even in those who were overweight at the time of surgery. This suggests an early adolescent association between adiposity and endometriosis aetiology that warrants further exploration.



**Assessment of candidate plasma cytokine biomarkers and serum CA125 for determining diagnosis and severity of endometriosis in symptomatic patients**

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**Background**

Endometriosis is a chronic disease affecting up to 10% of women. It is characterised by pain and subfertility and there is currently an 8-year delay in diagnosis. Those with the most severe disease must be triaged to tertiary centres for multidisciplinary management. Many candidate biomarkers have been assessed with varying success, CA125 is amongst the best performing and provides good specificity but not sensitivity for disease. Immune changes lie at the heart of endometriosis pathogenesis and peripheral blood cytokines represent potential biomarkers.

**Methods**

We evaluated 9 candidate plasma cytokines and serum CA125 in a cohort of 40 prospectively recruited hormone naïve patients attending for laparoscopy to investigate symptoms suspicious for endometriosis. There were 10 negative controls, 16 with minimal/mild (ASRM I/II) and 14 with moderate/severe (ASRM III/IV) disease. Plasma cytokines were assessed by immune multiplex and ELISA.

**Results**

Univariate analysis found CCL5(RANTES) was significantly decreased in cases compared with controls ( $p=0.02$ ). IL-17a and GM-CSF were similarly reduced in cases, although significance was marginal after correction. CA125 correlated very strongly with endometriosis stage ( $p=0.0002$ ). IL-8 and IL-17a were significantly higher in those with stage III/IV endometriosis compared to stage I/II ( $p=0.04$  and  $p=0.02$  respectively). A logistic regression model containing CCL5, IL-17a and CA125 gave the best overall performance for a diagnosis of endometriosis with an AUC of 0.797.

**Conclusions**

Most assessed cytokines were not able to differentiate between cases and controls. Serum CA125, which is readily available in primary care, was able to identify those with more severe disease and could be assessed to aid detection of those with severe endometriosis for referral to a tertiary centre.

### Sexual health after deep endometriosis surgery compared to healthy controls

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#### Background

To investigate the effect of laparoscopic deep endometriosis (DE) surgery on sexual health (physical, emotional, mental and socio-wellbeing in relation to sexuality) compared to healthy controls.

#### Methods

A retrospective cohort study was conducted in a endometriosis expertise centre in The Netherlands. In total, 127 sexually active DE patients who underwent laparoscopic resection surgery and 134 sexually active healthy controls were included. Validated questionnaires were used to assess Patient Reported Outcome Measures (PROMs) regarding sexual functioning (FSFI-9 and FSFS) and physical, emotional, mental and socio-wellbeing (pain scores, PCCL, PHQ9, PAS, MMQ, EHP-30) before and after deep endometriosis surgery compared to healthy controls.

#### Results

Deep endometriosis, the level of dyspareunia and depression were found to be significantly and independently associated with sexual functioning in the multiple regression analysis. Following DE surgery, there was a significant improvement in sexual functioning and sexual distress at 3- and 6-months post-surgery. However, in general, sexual functioning did not attain the level observed in the healthy controls, with the exception of sexual desire and orgasm domains. Whilst DE patients reported significant improvement of dyspareunia and depression after surgery, scores still differed significantly from the healthy controls (see Figure). In general, the emotional, mental and socio-well-being of DE patients significantly improved at 3- and 6-months post-surgery but did not reach the levels observed in healthy controls. In comparison to other DE patients, those who underwent bowel surgery (56.0%) or experienced major post-operative complications requiring re-operation (9.1%) did not show differences in sexual functioning compared to those who did not.

#### Conclusions

Sexual health is defined as “a state of physical, emotional, mental and socio-wellbeing in relation to sexuality and not merely the absence of disease, dysfunction or infirmity. This study is the first to provide an in-depth overview on sexual health after deep endometriosis surgery including sexual functioning, physical, emotional, mental and socio-wellbeing, in comparison to healthy controls. Next to improvement in the quality of life and reduction of pain, extensive DE surgery including bowel surgery, is of significant value to improve sexual health. However, during 3 and 6 month follow up, the ‘normal’ levels observed in the healthy controls were not achieved.

**Are ultrasound, MRI, and tumour markers sufficient for evaluating ovarian pathologies in patients with a history of endometriosis?**

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**Background**

In women with endometriosis, the lifetime risk of ovarian cancer is increased from 1.4% to about 1.9%. The risk of clear cell and endometrioid ovarian cancer is, respectively, tripled and doubled. In patient at postmenopausal age, long-lasting endometriosis, early-age diagnosis, infertility and/or infertility treatment (such as in-vitro fertilization (IVF)) the risk of developing ovarian cancer is higher. Endometriosis-related ovarian cancers are generally clear cell and endometrioid and are diagnosed at early stage compared to non-endometriosis related ovarian cancer. We aimed to support the literature with a case of ovarian clear cell carcinoma incidentally detected in a young woman.

**Methods**

A 38-year-old woman, G1P1, presented with abnormal uterine bleeding to the Training & Research Hospital. After taking a medical history and reviewing the hospital database, it was found that she had undergone a laparotomy 13 years ago (left ovarian cystectomy - pathology result: endometriotic cyst) and a C-section 4 years ago (IVF pregnancy). After using combined oral contraceptives (COC), she started receiving infertility treatment.

**Results**

Pelvic examination and transvaginal ultrasonography revealed active vaginal bleeding, a diffusely thickened endometrium of 20 mm, and a cystic lesion measuring 70x65 mm with dense, hyperechoic content in the left adnexal area (dermoid? cystadenoma?). A probe curettage, intravenous contrast-enhanced abdominopelvic MRI, and tumour markers were requested. The pathology result showed nonatypical hyperplasia, and the MRI revealed a 70x70 mm hyperdense lesion with solid-cystic components localized in the left adnexal area, with negative tumour markers. Laparoscopic cystectomy and progestin therapy were recommended. However, due to concerns about cancer risk, the patient and her husband opted for a hysterectomy, bilateral salpingectomy, and left oophorectomy. Final pathology results reported atypical endometrial hyperplasia and ovarian clear cell carcinoma. The patient was referred to the Division of Gynaecologic Oncology for cytoreductive surgery but declined staging surgery and left the centre.

**Conclusions**

Our case had specific conditions, such as a history of endometrioma and endometriosis-related infertility, the development of a new cystic lesion in the same ovary despite long-term COC use, increased risk of endometrial hyperplasia due to morbid obesity (BMI 48,44), and a potential increased risk of ovarian cancer following IVF treatment. If she had not undergone surgery and had been followed up with oral progestin or a levonorgestrel-releasing IUD for endometrial hyperplasia, an early-stage ovarian clear cell carcinoma might not have been diagnosed. It is clear that new investigations are needed for risk assessment.

**An evidence-based algorithm for the management of patients with haemorrhagic ascites secondary to endometriosis; a case series of six patients and review of the literature.**

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**Background**

Haemorrhagic ascites is a rare manifestation of severe endometriosis associated with significant morbidity and mortality. True prevalence is unknown and existing scientific literature on the subject is limited. Our objective was to review and present our experience as a tertiary referral centre and propose an evidence-based approach to managing this condition.

**Methods**

We performed a database search through ViewPoint™, an electronic ultrasound database, searching for the words 'endometriosis' and 'ascites', over a ten-year period (2014-2024). We report on clinical presentation, investigations, and management. We demonstrate sonographic images, cytology results and laparoscopic images where relevant. We report on recurrence, reproductive outcomes and complications. We reviewed existing scientific literature and compared our findings.

**Results**

We identified 6 patients with haemorrhagic ascites secondary to endometriosis. Median age was 36 (range:32-38) and median BMI 27 (range:21-29). Four patients were of black African and two of South-East Asian ethnicity. Four patients suffered with subfertility and all six patients were nulliparous. The most frequently reported symptoms were abdomino-pelvic pain and abdominal distention. Two patients had pre-diagnosed thoracic endometriosis. All patients had evidence of deep endometriosis on imaging, with four having bowel involvement. Cytology results revealed low/moderate cellularity, scattered haemosiderin/blood and laden macrophages. Initial management involved laparoscopic (3 patients) or ultrasound-guided (2 patients) drainage of ascites. All patients who underwent laparoscopy were confirmed to have large-volume ascites and deep endometriosis with bowel and diaphragmatic involvement. Upon drainage, all patients were initiated on gonadotrophin-releasing hormone analogues (GnRHa) with add-back hormone replacement therapy. Recurrence occurred in all patients who ceased GnRHa to pursue fertility. One patient underwent IVF leading to live birth, one underwent fertility preservation with 16 MII-oocytes collected and is currently awaiting second-stage excisional laparoscopy, and one patient had two oocyte-collection cycles with poor response and is scheduled to have a three-month period off GnRHa prior to a third cycle. Regarding complications, one patient underwent emergency laparotomy for bowel obstruction secondary to a pre-existing umbilical hernia, one year after laparoscopic drainage of ascites, and one patient died secondary to severe infection on the background of advanced HIV and refusing treatment.

**Conclusions**

Our findings are consistent with existing scientific literature and reflect the complexity and high morbidity and mortality of the disease. We present an evidence-based algorithm for the investigation and management of haemorrhagic ascites secondary to endometriosis. Upon exclusion of other causes and obtaining imaging, initial management concentrates on symptom relief through drainage of large-volume ascites. This must be time-coordinated with initiation of GnRHa, to achieve ovarian suppression, eliminate the driving causative mechanism and prevent re-accumulation. Long-term management is dictated through an individualised multidisciplinary team approach. Surgical management involves excision of endometriosis and is dictated by fertility intentions. Hysterectomy with bilateral salpingo-oophorectomy leads to definitive management with over 95% cure rates.

**Laparoscopic robot-assisted resection of deep infiltrating endometriosis nodules. An observational-prospective study**

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**Background**

Deep infiltrating endometriosis nodules (DIEN) deeply affect the patients' quality of life. The most frequent symptoms are dysmenorrhea, dyspareunia, intestinal disorders (chronic constipation, dyschesia, rectal bleeding), urinary disorders and associated infertility. The surgical resection of DIEN is the only treatment leading to a long-term symptoms' improvement. The surgical procedure is challenging. Currently, robotic technology and telemanipulation systems represent the latest developments in minimally invasive surgery. They have revolutionized conventional laparoscopy by offering improved ergonomics for the surgeon, three-dimensional visualization of the operating field, greater precision, and fine instrumentation with seven degrees of movements allowing increased manoeuvrability of these instruments. The feasibility and safety of robot-assisted laparoscopy for the surgical treatment of DIEN has been previously reported. The main objective of this study is to measure the quality of life of patients before and after robotic surgery for deep infiltrating endometriosis nodules.

**Methods**

Design: Observational, prospective and single-centre study

Inclusion criteria: All patients eligible for a robot-assisted laparoscopic resection of DIEN who agreed to participate to the study and signed an informed consent.

Exclusion criteria: none.

Duration: Study carried out between April 2021 and December 2023 at the H.U.B. – Hôpital Erasme in Brussels.

Study population: 39 patients suffering from deep endometriosis and operated by robot. An EHP-5 questionnaire was completed by all patients to evaluate their quality of life before and after surgery.

Statistical analysis: Statistical analysis was carried out using a MacNemar test, a linear regression test and an ANOVA.

**Results**

Our results show a significant reduction in post-operative symptoms and in the EHP-5 score. Only one stage III complication according to the Clavien-Dindo classification was described, showing a major complication rate of 2.5%. Ten patients got pregnant postoperatively (25.6%). A surgical satisfaction rate of 71.8% was observed.

**Conclusions**

Our study highlights a positive impact of robotic surgery on the quality of life of patients with deep-infiltrating endometriosis. These results provide promising data to guide the surgical treatment of deep-infiltrating endometriosis and to improve the care of this delicate group of patients.

**Assisted reproductive technology in a patient with endosalpingiosis: A case report.**

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**Background**

Endosalpingiosis is a rare condition characterized by the presence of ectopic, cystic glands outside the fallopian tube that are lined with fallopian tube-type ciliated epithelium. A significant characteristic of endosalpingiosis is its coexistence with endometriosis and its histologic relationship to pelvic serous neoplasms, such as lesions of low malignant potential, and low-grade pelvic serous carcinoma. This case report presents a case of endosalpingiosis in a subfertile patient during diagnostic evaluation. Given the limited research on endosalpingiosis and the uncertainties surrounding its clinical presentation, this case underscores the significance of educating gynaecologists about its clinical implications.

**Methods**

A 36-year-old female patient nullipara presented to the outpatient clinic of a reproductive medicine unit for primary infertility of 6 years. She complained about occasional lower abdominal pain and distention that the patient did not consider significant and were attributed to her diet habits. There was no reported surgical history or history of pelvic inflammatory disease or abdominal infection. The patient denied changes in bladder or bowel habits, abnormal uterine bleeding, rectal bleeding, haematuria, recent weight changes, or fevers/chills. A physical exam revealed mild abdominal tenderness to palpation and a midline mass that was palpated just superior to the pubic symphysis. Pelvic examination was with normal findings. The transvaginal ultrasound scan revealed a retroverted normal-sized uterus, normal endometrial characteristics with 200cc of free peritoneal fluid in the pouch of Douglas. A pelvis MRI image demonstrated a distended fallopian tube with the differential diagnosis of a hydrosalpinx or hematosalpinx. The patient underwent a diagnostic laparoscopy, which showed adhesions of the omentum with the right anterior lateral abdominal wall, sigmoid symphysis with the left lateral pelvic wall, and foci of endometriosis in the left sacrouterine ligament and on both lateral pelvic walls. She followed-up with an ultrasound and due to persistence of the free fluid, a guided paracentesis was performed.

**Results**

Cytology revealed possible endosalpingiosis. The pathology report was negative for malignancy and determination of tumour markers was negative. Afterwards, the patient was fully informed that her treating general gynaecologist should be aware of, and their clinical significance for future reference.

**Conclusions**

Endosalpingiosis is a poorly studied disease, associated with uncertainties in its clinical manifestations. This case enlightens the importance of educating gynaecologists about its clinical implications and highlighting its association with pelvic serous neoplasms are crucial steps in improving diagnosis, management, and follow-up care for patients with this condition.

### The Laparoscopic Advantage: A Decade of Reducing Hospital Stays After Hysterectomy

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#### Background

This retrospective observational cohort study assesses the impact of minimally invasive surgery (MIS) on the length of stay (LoS) following hysterectomy procedures over a 10-year period in a Scottish university hospital. Quantifying the impact of MIS on reducing the burden to inpatient services is crucial at this pivotal time whilst healthcare systems recover and evolve following the COVID 19 pandemic.

#### Methods

Data was obtained from local NHS Scotland databases via internal information analysts using specific procedure codes to identify all cases of hysterectomy between January 2012 and January 2023.

The study population included patients from a variety of ethnic backgrounds, age, clinical and demographic characteristics including a wide variety of clinical indications and multiple surgeons. with no exclusion criteria applied, providing a realistic patient population. The search resulted in 2695 cases for analysis.

Procedures were analysed in subgroups based on surgical approach i.e. abdominal, vaginal and laparoscopic. Mean LoS in each subgroup was calculated in 2-year intervals.

#### Results

The results revealed 1037 laparoscopic hysterectomy procedures with a downward trend over the 10-year period with a mean LoS of 2.68 (standard deviation, SD 1.50) in 2012/13, LoS of 1.89 (SD 0.87) in 2018/19 with a significant reduction in 2022/23 with a mean of 0.86 (SD 1.19). Additionally, 399 vaginal hysterectomy cases were identified, with a less significant reduction in LoS over the years. The mean LoS in 2012/13 was 2.77 (SD 1.57) which decreased to 2.00 (SD 0.90) in 2018/19 but increased again over the preceding years resulting in LoS of 2.33 (SD 1.70) in 2022/23. The 1259 abdominal hysterectomy procedures had an average LoS of 4 days. The mean LoS in 2012/13 was 4.09 (SD 2.97) which decreased to 3.28 (SD 2.95) in 2018/19, increased during the COVID-19 pandemic to 3.90 (SD 4.16) with a further decrease in LoS in the most recent cases with LoS of 3.03 (SD 3.13) in 2022/23. There is a striking downward trend in LoS for all surgical approaches to hysterectomy, but the most significant reduction in LoS throughout the entirety of the 10-year period is laparoscopic hysterectomy.

#### Conclusions

The study evidences the translatable benefits to patients that are realised by a minimal access approach to major gynaecological surgery. We demonstrate a clear association between laparoscopic hysterectomy and shorter hospital stay when compared with abdominal and vaginal approach. These results serve as a valuable resource for clinicians, healthcare researchers, and policymakers, supporting the recommendation for routine use of minimally invasive surgery in modern surgical practice,

Additionally, reduction in LoS is likely to have a positive economic impact on healthcare delivery, not only through improved cost efficiency but by improving access to inpatient care and waiting list reduction.

**ABST-0676 - P122**

**ePoster and Video Presentations**

**Hysteroscopic extraction of a displaced intrauterine contraceptive device after caesarean section**

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**Background**

Post placental insertion of an intrauterine contraceptive device (IUCD) at the time of caesarean section is associated with higher rates of spontaneous expulsion than insertion at 6 weeks postpartum. The incidence of IUCD malposition post c-section is not known and UK national guidance only recommends ultrasound assessment of IUCD position if threads are not visible at the 6-week postpartum check.

**Methods**

Here, we present a case of a displaced IUCD which had been inserted at c-section and had become symptomatic.

**Results**

The patient presented with a history of profuse, watery vaginal discharge that was causing discomfort and pruritis. She had a background history of an elective c-section following a previous vaginal delivery complicated by a third-degree tear. She had had an IUCD inserted at the time of c-section and was amenorrhoeic. Clinical examination identified normal appearances of the vulva, vagina and cervix, but the IUCD threads appeared to be long. Genital swabs revealed no sign of infection. A transvaginal ultrasound scan suggested that the coil was low in the uterine cavity. At hysteroscopy the left arm of the IUCD was embedded within the left tubal ostium and the right arm was bent out of position. The coil was extracted and replaced. Her symptoms of abnormal discharge resolved and were likely caused by the foreign body effect of a displaced coil.

**Conclusions**

This case highlights that IUCD malposition is a potential complication of c-section insertion and should be included in pre-procedure counselling and considered as a differential in patients presenting with pain, bleeding and/or abnormal discharge.



### Predictors of success for laparoscopic treatment of endometriosis

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#### Background

Laparoscopic surgery is one of the key treatment modalities for management of endometriosis. Whilst some women show significant response to surgical treatment, others find either no improvement or only temporary improvement in pain after surgery. The aim of this study was to identify parameters which may predict the success of laparoscopic endometriosis surgery in relieving endometriosis-related pains.

#### Methods

This retrospective cohort study included women who underwent laparoscopic surgery for endometriosis in a single BSGE- accredited Endometriosis Centre over a 6- month period from January 2022 to July 2022. Eligible laparoscopic endometriosis procedures were identified from the operative database. Preoperative demographic and clinical data, operative records, histological findings and postoperative follow up records (up to 12 months) were obtained.

The parameters assessed were grouped into: 1) Demographic parameters: age, BMI, ethnicity, parity, mental health issues, number of previous laparoscopies; 2) Symptom-specific parameters: dysmenorrhea, dyspareunia, cyclical pain, non-cyclical pain, dysuria and dyschezia; 3) Surgical parameters: severity and types of endometriosis lesions, completeness of endometriosis removal, adhesiolysis, Total laparoscopic hysterectomy (TLH) and bilateral salpingo-oophorectomy (BSO), postoperative hormonal therapy and histologically findings of excised endometriosis.

Women having more than 50% improvement in symptoms were classified as responders during the postoperative 6- and 12-month follow up. Data were compared between responders versus non-responders using Chi squared test, Fischer's exact test, T- test or McNemar's test as appropriate. P value <0.5 was considered statistically significant.

#### Results

The study included 64 women with response rates of 92.9% at 6-month and 71.9% at 12-month follow-up (p=0.046). The following parameters were found to be significantly predictive of response to surgery at 12- month follow-up: 1) Demographic parameters: Age  $\geq 34$  years (n= 28, 78.6% responders); **vs.** age <34 years (n=36, 50% responders) (p=0.019); 2) Symptom specific parameters: absence of non-cyclical pain (n= 27, 81.5% responders) **vs.** presence of non-cyclical pain (n=37, 48.6% responders) (p=0.007); Dyschezia absent (n= 51, 68.6% responders) **vs.** present (n=13, 38.5% responders) (p= 0.045); 3) Surgical parameters: TLH performed (n= 22, 83.3% responders); **vs.** not performed (n=42, 69.2% responders) (p=0.027); BSO performed (n= 20, 100% responders) **vs.** not performed (n= 44, 66.7% responders) (p=0.010).

#### Conclusions

Women's age  $\geq 34$  years, absence of non-cyclical pain and dyschezia, and TLH/BSO seem to predict good response to surgical treatment of endometriosis. Further larger studies are needed to validate these findings. Identifying predictors of success for laparoscopic treatment of endometriosis will help counselling and careful selection of women who are more likely to benefit from surgical management of endometriosis.

### Evaluation of PRP therapy in repair of uterus suture after cesarean section

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#### Background

According to WHO, over the past thirty years, the proportion of caesarean sections (CS) has increased worldwide, reaching its highest level in the current decade, and has approached 25-30%, reaching 40-50% in large perinatal centres. Due to the natural properties of platelet-rich plasma, its introduction into the human body is one of the promising procedures in tissue restoration.

#### Methods

116 women were examined in the period 2022-2023, who delivered by caesarean section. The main group consisted of 45 women who received platelet autoplasm (PAP) during caesarean section surgery after suturing the incision in the uterus; the comparison group consisted of 71 women who did not receive platelet autoplasm during surgery. In the postoperative period, all women underwent ultrasound examinations (US) on days 3-4 and three months later, assessment of vascularization using colour Doppler mapping.

#### Results

The size of the uterus in patients with PRP therapy significantly smaller ( $117.8 \pm 1.2$  mm,  $107.1 \pm 1.6$  mm,  $70.1 \pm 1$  mm ( $p < 0.05$ )) than in the group without therapy ( $123.8 \pm 1$  mm,  $112.7 \pm 2$  mm,  $74.8 \pm 0.5$  mm). This suggests that the use of platelet autoplasm improves uterine involution after CS. The thickness of the uterus in the area of the postoperative suture in patients with PRP was  $26.9 \pm 0.7$  mm, in the control group -  $26.7 \pm 0.8$  mm ( $p > 0.05$ ). After 3 months, the size of the uterus did not differ significantly between the groups. The thickness of the uterus in the area of the scar was smaller in patients of the main group and amounted to  $6.1 \pm 0.7$  mm, in the control group -  $6.5 \pm 0.8$  mm, but within unreliably significant limits. In the main group, a defect in the form of a "niche", 3 mm deep, was visualized in 1 patient, and the remaining myometrial tissue was 4.6 mm. Defects in the form of a "niche" had a depth of up to 8.8 mm, while the remaining part of the myometrium ranged from 1.5 to 1.8 mm, which gave grounds to classify these scars as "failing". Analysis of the vascularization of the scar area with colour Doppler mapping revealed that when using platelet autoplasm, only 1 patient (2.2%) had poor blood flow. Whereas in women without PRP, poor blood flow was noted in 26 (36.6%), which is 16.6 times more often. Increased blood flow in the group with PRP was observed in 10 (22.2%) women and in 2 (2.8%) women with the traditional CS method.

#### Conclusions

PRP therapy of the suture area in CS has a positive effect on the healing of the scar on the uterus and allows to accelerate the process of reparative regeneration. The use of platelet autoplasm contributes to more intensive neovascularization of the wound and the formation of a full-fledged scar on the uterus after caesarean section.

### Navigating the pelvic abscess dilemma: A case report and therapeutic insights

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#### Background

Background

Most tubo-ovarian abscesses occur in the setting of pelvic inflammatory disease. However, TOAs can occur without a prior history of STI and may follow a surgical procedure like appendicectomy or hysterectomy. Current research does not include any separate pathway for women who wish to preserve their fertility. We report a case of recurrent TOA in a lesbian female which proved out to be surgically challenging as well as possessed us with some serious therapeutic challenges.

#### Methods

Methods

25-year-old female had a laparoscopic appendicectomy and was found to have a paraovarian cyst at the time of operation. Laparoscopic drainage was performed 2 weeks later due to clinical suspicion of torsion. She presented 3 weeks after with sepsis and imaging showed infected ovarian cyst measuring 11 cm on the right side. This time she was managed with ultrasound guided drainage and broad-spectrum antibiotics. 2 weeks later she re-presented with sepsis and was found to have pelvic collection of 8 cm with increased inflammation on the surrounding fat and sigmoid colon. Multidisciplinary management with deroofting of the mass and drainage of pus was carried out laparoscopically.

#### Results

Results

This was a challenging case and cultures of pus isolated ESBL E coli. She has been closely monitored post-operatively and USS 4 weeks postop shows right sided hydrosalpinx measuring 4x 5x 1 cm with normal left adnexa

#### Conclusions

Conclusion

Appendicectomy seems to have association with TOA. Our patient had a paraovarian cyst as an additional risk factor, drainage of which seems to have aggravated the inflammatory process. This report addresses the conundrum of selecting the optimal surgical approach for management of pelvic abscess. Laparoscopy should be considered for all patients with TOA who desire future conception. Overall, the advantages of immediate laparoscopy allow for an accurate diagnosis, effective treatment under magnification and possibly faster response rates with shorter hospitalisation times.

**Port-site hernia' recurrence at previous 5 mm laparoscopic access: Case report and review of literature**

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**Background**

Port site hernias (PSHs) smaller than 10 mm are an uncommon complication following laparoscopic surgery. The first instance of such a hernia was documented in 1968 in patients who underwent minimally invasive gynaecological procedures. PSHs are similar to laparoscopic incisional hernias but are less frequent, typically occurring at port sites of at least 10 mm.

**Methods**

In this report, we describe the first recorded recurrence of a PSH at a 5-mm laparoscopic access site. The patient, a woman, had previously undergone a total hysterectomy with bilateral salpingectomy to treat symptomatic uterine fibromatosis, performed using a standard laparoscopic method. The surgery and postoperative period were initially uneventful. However, several months later, she developed a subocclusive condition due to a partial sigmoid hernia at the former 5 mm laparoscopic port site.

**Results**

To address this, a laparoscopic intralesional fascia suture using Vicryl in separate stitches was performed. Despite this intervention, the hernia recurred at the same 5 mm port site a few months later. Consequently, a laparoplasty with a Ventralex-type prosthesis was carried out.

**Conclusions**

Existing literature on 5 mm port-site hernias, particularly regarding recurrence, is limited and inconsistent. Current knowledge is primarily derived from case reports and a single retrospective study, which does not reflect contemporary surgical practices. Therefore, how to manage these rare cases remains unclear. In the discussion, we will review the available literature following the description of this clinical case.

**Tubo-ovarian abscess: A clinical comparison of patients with endometriosis versus without**

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**Background**

Tubo-ovarian abscess (TOA) is a common pelvic infection often associated with significant short- and long-term morbidity. This is not least with regards to the formation of pelvic adhesions, which can impact fertility and make future surgery more challenging. Women with endometriosis may be more prone to developing TOA and suffer more from the effects of the TOA given their own propensity for forming intra-abdominal adhesions.

Our unit has previously published data investigating the role of radiological drainage and outpatient IV antibiotic therapy in the management of TOA. This research adds to the previous data collected and compares the clinical presentation and outcomes of patients with TOA, with and without endometriosis.

**Methods**

Patients admitted to St Mary's Hospital, London (Imperial College Healthcare Trust) with TOA were included in the study. Exclusion criteria were pelvic infections without abscess and post-surgical vault infections. Data from patients admitted between January 2023 – April 2024 was added to our existing dataset from January 2015 – June 2019. Retrospective analysis of electronic health records was performed to include length of stay, number of endometriomas, requirement for drainage, and microbiology. Patients with a background of endometriosis were identified and their outcomes were compared to the non-endometriosis group using Chi square, or Fishers exact test where appropriate.

**Results**

156 patients were included in the study, of which 37 had endometriosis and 119 did not. Patients with a background of endometriosis who developed TOA were more likely to develop bilateral TOA than those without endometriosis (43%vs 30%, p 0.07) and were more likely to undergo drainage of their TOA (40% vs 28%, p 0.08). Endometriosis was associated with a longer length of stay (9.07 vs 7.19 days). The most common causative organism in both groups was E.Coli, with 27% in the endometriosis group and 23.5% in the non-endometriosis group. No patients in the endometriosis group had C. Trachomatis or N. Gonorrhoeae infection vs 11% in the non-endometriosis group. This was statically significant with p=0.03.

**Conclusions**

The pathogenesis of TOA in patients with endometriosis is likely to be due to ascending infection or translocation of gut organisms, in view of the commonly found gut organism on microbiology. It can no longer be argued that TOA is sexually transmitted infection as a significant proportion of our patients were not sexually active at the time of presentation. Patients with a background of endometriosis should be considered for early radiological drainage due to their propensity for developing bilateral abscess and requiring longer hospital stay, although drainage may be technically challenging due to intra-abdominal bowel adhesions.

**The role of diagnostic hysteroscopy in patients with secondary infertility.**

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**Background**

Infertility is a growing problem in modern societies with multiple risk factors and aetiologies. The incidence of secondary infertility is also increasing, the main causes are lower genital tract infections or defects from gynaecological surgeries (i.e. isthmocele). There are cases in which the cause is not found, in spite of submitting couples to different diagnostic tests. Among them is hysteroscopy, which is both a diagnostic and therapeutic instrument for different intrauterine pathologies.

**Methods**

It is a descriptive database performed on patients who visited with infertility and underwent a diagnostic hysteroscopy from January 2019 to June 2023. The variables included were women's age, previous gestations, hysteroscopic diagnosis, anatomopathological diagnosis, subsequent assisted reproductive technique (ART), subsequent gestations and live birth rate (LBR).

**Results**

During the four and a half years of the study we had 87 (2,66%) patients referred from reproductive consultations out of a total of 3261 patients, who underwent diagnostic hysteroscopy at our centre. The mean age of our infertility patients was 35,7 years; 35 women out of 87 (40,2%) had previous pregnancies, and only 8 of them had achieved live descendant, which represents a 9,2% of such patients. Focusing in this reduced population, hysteroscopy was indicated for 3 of the 8 patients (37,5%), because of ultrasound alterations, and the findings were two endometrial polyps. The main benefit of hysteroscopy is its therapeutic capacity when intracavitary pathology is found; and in this case, endometrial polyps were resected with scissors. With regards to the remaining 5 patients, hysteroscopy was requested due to repeated miscarriages and infertility without ultrasound alterations. In this group the results were one simple glandular hyperplasia in a patient with dissociation in endometrial development and a history of repeated pregnancy loss, one endometrial polyp and 3 functional endometrium. Since 2021 in our centre, we have incorporated the analysis of plasma cells and CD-138 marker in endometrial biopsies to identify subclinical endometritis, being positive in two (25%) patients, one with confirmed endometritis and the other in glandular hyperplasia. Even after antibiotic treatment this patient failed to achieve pregnancy. After performing hysteroscopy, although 5 patients received ART and 4 achieved pregnancy, none of them had live descendants, which means a 0% LBR.

**Conclusions**

According to the literature, hysteroscopy is a useful technique, and it is recommended once basic tests have been performed on both members of the couple. Its therapeutic capability is beneficial when intracavitary pathology is found. It is noteworthy in our series that although no causes of possible infertility were found, such as myomas, intrauterine adhesions, isthmocele other than endometrial polyps or signs of endometritis, the LBR after treatment was 0. Further studies are needed to clarify which tests are useful to perform to diagnose the causes of secondary infertility.

**ABST-0651 - P116**

**ePoster and Video Presentations**

**Quality improvement project: Setting up a new day case hysterectomy service in a district general hospital**

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**Background**

Performing laparoscopic hysterectomies as a day case procedure is becoming more commonplace; improving patient satisfaction, decreasing hospital stay duration and promoting faster return to normal activities. Given these benefits and 'Get It Right First Time' (GIRFT) recommendations, a pilot programme was developed to introduce the pathway into our trust.

**Methods**

An initial audit was performed looking at all laparoscopic hysterectomies (total/subtotal - TLH/sTLH) performed, demonstrating that a high proportion of patients would be suitable candidates for a day case procedure and determined the eligibility criteria. A subsequent protocol was drawn up in conjunction with the multidisciplinary team. The protocol was implemented, and data collected over a 12-month period.

**Results**

20 cases were performed between January to December 2023. The indications were wide ranging, most commonly menorrhagia. There was 100% compliance with the eligibility criteria (ASA $\leq$ 2, BMI $<$ 35, fluent in English). 95% of cases were TLH (19/20) and one case was subtotal, 60% had conservation of the ovaries. There was 100% compliance with peri-operative optimisation. No intra-operative complications were recorded, with blood loss uniformly  $<$ 100ml and operative time ranging 45-84minutes. 95% of cases had their catheter removed in theatre (one required re-catheterisation). 85% of patients were discharged same day, 5% within 23 hours and two stayed for 48 hours. There were no post-operative readmissions. 100% of patients were satisfied with their experience.

**Conclusions**

Although numbers are relatively small, day case hysterectomy has proven to be a safe and effective option for our patient demographic, though further data collection is needed, and patient satisfaction assessed

**Caesarean scar endometriosis: A single surgeon case series and literature review**

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**Background**

Caesarean scar endometriosis (CSE) is a rare form of extra-pelvic endometriosis, thought to arise from iatrogenic transplantation of pelvic lesions at the time of abdominal surgery. There are hormonal and surgical treatment options, however surgical excision should be considered the gold standard due to high recurrence rates associated with medical therapy. In this series we review ten cases presenting to a tertiary referral centre.

**Methods**

In a BSGE-accredited endometriosis centre, ten cases of Caesarean Scar Endometriosis (CSE) were identified over a 24-month period. All patients presented with a painful lump at the level of their caesarean scar, with or without cyclical swelling. The interval from caesarean to presentation ranged from 2 to 17 years, with a mean of two caesarean deliveries per patient. Preoperative imaging (either ultrasound or MRI) was performed for all cases, with 50% also undergoing needle-aspiration biopsy for histological confirmation. Surgical treatment involved wide-local excision in 50% of cases, with 40% undergoing concurrent laparoscopy. One case included a subtotal hysterectomy

**Results**

Complete resolution of symptoms was achieved in all patients, with no episodes of recurrence to date. There were no recorded complications from the surgeries, and the estimated blood loss averaged 19ml.

**Conclusions**

Caesarean Scar Endometriosis (CSE) is an uncommon complication following abdominopelvic surgery. In this case series, only one patient had a pre-existing diagnosis of endometriosis, and none had findings of deep infiltrating endometriosis on MRI or during laparoscopy. Further research is needed to understand the pathophysiology of endometriotic deposit transplantation and to identify potential measures to minimize the risk of developing CSE.



**Immature ovarian teratomas in a high-complexity hospital: a descriptive study**

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**Background**

Immature teratomas are rare cancers and the evidence on their diagnosis, treatment, and follow-up is still scarce. This study aims to describe the characteristics of the patients diagnosed with this tumour who had undergone surgery in our centre.

**Methods**

We identified 229 patients diagnosed with ovarian teratoma who underwent surgery in our centre from 2014 to 2023. 12 of these patients were reported to have an immature ovarian teratoma. We collected the following data from these patients: age at diagnosis, tumour markers before treatment, surgical treatment and approach, imaging characteristics, International Federation of Gynaecology and Obstetrics (FIGO) stage, adjuvant treatment, and current disease status. We have summarized quantitative continuous variables as mean±standard deviation (SD), discrete data as mean and interquartile rank (IQR), and categorical variables as relative frequencies.

**Results**

We reviewed 12 cases diagnosed with a histological diagnosis of immature teratoma. The mean age of the patients was 29 years (IQR 16.25). CA 125 and alpha-fetoprotein (α-FP) levels were elevated in 58.33 % and 50% of the cases respectively, (mean 82.2%±83.9 U/ml and 330±664 ng/mL). CA19.9 was only found elevated in 16.7 % of the patients.

In all patients the tumour was described by imaging tests as a unilateral ovarian mass with solid component. Mean of the maximal dimension was 156.5±20.4 mm for ultrasound, magnetic resonance imaging (MRI) and computed tomography scan (CT).

When it comes to histology, stage IA was reported in 41.67% of patients. The most common histological grade was G3 (58.33%).

Unilateral adnexectomy (75%) was the most common procedure. Two patients underwent cytoreductive surgery. Surgical approach was laparoscopy in 41.67% of the cases. Intraoperative cyst ruptures were described in 25% of the surgeries.

Adjuvant chemotherapy with bleomycin, etoposide and cisplatin (BEP) was required by 41.67% of the patients because of their FIGO stage. Recurrences were diagnosed in 41.67% of patients with a relapse-free survival of 7.2 months (IQR 3). Histological exams reported that 40% were malignant teratomas and 60% were mature teratomas. All patients with malignant teratoma recurrence were treated with chemotherapy. All patients with mature teratoma were treated with surgery.

Of all 12 patients, only 10 continued with a proper follow-up in our centre. Currently, 3 of them (33.3%) have an active disease. No death was reported.

**Conclusions**

Immature teratomas are rare cancers that affect mainly adolescents and young women. They are commonly described as unilateral, large ovarian masses, just as described in our study. α-FP, CA 125 and CA 19.9 are frequently found elevated like we reported.

Fertility-sparing surgery, which is the gold standard in early stages, was the most frequent surgery. Growing teratoma syndrome has been related to residual disease after surgery and chemotherapy. The recommended treatment is surgery with removal of all resectable disease.

### The guideline of beginner's surgeons in robotic single-port hysterectomy by da Vinci SP system®

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#### Background

The purpose of this study was to estimate the guideline of the robotic single-port hysterectomy (RSPH) procedure in beginner's surgeons comparing the expert and to discuss the optimal usage of RSPH by analysing retrospective data by a team of 2 gynaecologic surgeons.

#### Methods

This retrospective case-controlled study was divided into two groups; Surgeon A is an expert who had performed more than 2,000 of total robotic surgeries and performed 1,229 SP surgeries with experience in the da Vinci® SP surgical system, and surgeon B first started robotic surgery from a study period and now performed 177 robotic SP robotic surgeries. Patient underwent RSPH performed using the da Vinci® SP surgical system at Ewha Womans University Medical Center from December 28, 2018, to January 31, 2024. We reviewed patient charts and collected data on patient characteristics including age, parity, body mass index, symptoms, previous history of surgery, and preoperative diagnoses that could affect surgical outcomes. We also analysed surgical variables including docking time, total operation time, estimated blood loss (EBL), haemoglobin change, and return of bowel activity, hospitalization days, and complications.

#### Results

The demographic and clinical characteristics of the patients were no statistically difference. Surgeon A's average weight of removed uterus was  $370.66 \pm 206.47$ g, while surgeon B's was  $362.12 \pm 212.67$ g showing no statistically difference (p-value 0.57), but the total operative time and console time in surgeon A were significant lower in surgeon B ( $114.17 \pm 53.15$  vs.  $141.87 \pm 38.45$ . p-value  $< 0.001$ ;  $57.76 \pm 38.8$  vs.  $84.7 \pm 45.8$ , p-value  $< 0.001$ , respectively). Also estimated blood loss was significant larger in surgeon B, but postoperative Hb change was not statistically different between the two groups ( $95.28 \pm 97.67$  vs.  $129.6 \pm 112.0$ , p-value  $< 0.01$ ;  $1.87 \pm 0.87$  vs.  $1.98 \pm 0.94$ , p-value 0.093).

By stratified analysis, in the case of uterine weight, there was a significant difference in the clinical results of the two surgeons when based on 400g, and there was a statistical difference in operation time, console time, estimated blood loss and postoperative Hb change based on dividing group at 400 g or more ( $120.26 \pm 73.23$  vs.  $189.31 \pm 44.85$ , p-value  $< 0.001$  ;  $57.29 \pm 24.89$  vs.  $128.73 \pm 61.07$ , p-value  $< 0.001$  ;  $132.99 \pm 135.67$  vs.  $210 \pm 152.59$ , p-value 0.024 ;  $1.56 \pm 1.52$  vs.  $1.98 \pm 0.92$ , p-value 0.01).

#### Conclusions

RSPH is adequate surgical technology by the expert and beginner surgeon even though there were some differences of surgical variables between them. Regardless of surgical skills, most surgical variables less than 400g in max weight of uterus was compatible in RSPH.

**'A call for action: research agenda for MR-HIFU within gynaecology'**

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**Background**

Magnetic Resonance guided High Intensity Focused Ultrasound (MR-HIFU) is a non-invasive, fertility preserving technique, most commonly used in gynaecology for the treatment of uterine fibroids and adenomyosis. Previous studies reported that MR-HIFU for these indications results in volume reduction of the targeted lesion, with subsequent symptom reduction and improved health-related quality of life, while having low complication rates. However, there are few large prospective cohort studies or randomized controlled trials (RCTs) comparing long-term (cost) effectiveness of MR-HIFU to standard (minimally) invasive care. Due to the lack of this information, widespread reimbursement is not yet available.

In gynaecology, MR-HIFU has also been applied to treat abdominal wall endometriosis (AWE) and recurrent gynaecological malignancies, but only in early research stages. Nevertheless, the available studies show promising results in reducing pain symptoms without major complications for both indications.

It is time to actually answer women's demand for non-invasive, fertility-sparing treatments. Therefore, a research agenda is developed, which supports moving MR-HIFU from research stages to widespread reimbursement and clinical implementation within gynaecology.

**Methods**

Following a thorough systematic literature review on MR-HIFU for gynaecological indications and an evaluation of the available studies as presented by Knorren et al. (2024), a research agenda was developed based on the lack of knowledge regarding MR-HIFU for gynaecological indications.

**Results**

Proposed research agenda

- • Controlled prospective trial or RCT in patients with uterine fibroids who are actively trying to conceive, comparing expectant management, myomectomy and MR-HIFU, with time to conception and miscarriage rates as primary outcomes.
- • Controlled prospective trial or RCT in patients with symptomatic uterine adenomyosis, comparing pharmacological treatment with surgical treatment, uterine artery embolization and MR-HIFU, with symptom reduction, health-related quality of life, recurrence rates, reintervention rates, and costs as primary outcomes.
- • Controlled prospective trial or RCT in patients with symptomatic AWE, comparing MR-HIFU with surgery, with symptom reduction, reintervention rates, and costs as primary outcomes.
- • Patient preference studies for the treatment of benign gynaecological pathologies (e.g., uterine fibroids and adenomyosis), including pharmacological, non-invasive, minimally invasive, and surgical interventions.
- • Comparison of ultrasound guided HIFU with MR-HIFU for long-term effectiveness and safety in gynaecological indications.
- • Research into potential MR-HIFU indications within gynaecology.

**Conclusions**

MR-HIFU shows promise as an effective and safe treatment for uterine fibroids, uterine adenomyosis, AWE and the palliative treatment of recurrent gynaecological malignancies. However, controlled prospective cohort studies or RCTs providing conclusive evidence of long-term (cost) effectiveness are still lacking. Therefore, we call on gynaecologists and radiologists to contribute to the implementation and execution of the proposed research agenda, so that conclusive evidence on MR-HIFU within gynaecology can be gathered. This will hopefully lead to reimbursement and clinical implementation of the technique into standard practice, and thereby open up the possibility of expanding the applications of MR-HIFU within gynaecology.

**Dynamic changes in vaginal wall thickness after surgery with titanized mesh: initial considerations.**

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**Background**

Minimally invasive surgery with prosthetic mesh for pelvic organ prolapse represents the standard approach to prevent prolapse recurrence. The meshes are composed of structured tissues that integrate into the host's tissues permanently. Post-implantation characteristics of the vaginal wall are essential for understanding its physiological functions and for diagnosing and managing conditions associated with mesh presence. The measurement of vaginal wall thickness (VWT) performed by transvaginal biplanar ultrasound has been recently demonstrated as an optimal sonographic technique with good intra- and inter-operator reliability. Our study aimed to prospectively assess VWT one- and ten-months post-surgery in patients undergoing robotic surgery for genital prolapse using titanized mesh with lateral suspension technique (PoP-S).

**Methods**

Patients undergoing robotic PoP-S for genital prolapse with titanized mesh placement were prospectively enrolled. The Esaote Mylab X8 Platform with the 65x5.5 mm linear longitudinal transducer of an endovaginal biplanar probe was used. VWT measurements, expressed as median (Me) and interquartile range (IQR) were obtained from the anterior vaginal wall at three levels: the proximal point (anterior fornix), the distal (below the bladder neck), and the midpoint between these points. VWT data were analysed using median and quartile values after confirming non-normality via Shapiro-Wilk's test. Wilcoxon's signed-rank test for paired data was utilized to compare VWT values at one- and ten-months post-surgery, with a one-tailed test direction indicating an expected decrease in vaginal wall width over time.

**Results**

Seventy-two women were enrolled, aged 66±8 years, mean BMI of 23±3 Kg/m<sup>2</sup>. Sixty-seven were in menopause (93.1%). 3rd-degree cystocele was present in 46 cases (63.9%), 2nd in 24(33.3%), and 4th in 2(2.8%). 38 cases (52.7%), presented with 3rd degree hysterocele, 31(43.1%) with 2nd and a 4th degree was documented in 2(4.2%) cases. Six women underwent subtotal hysterectomy (8.3%). A statistically significant difference was found at the proximal point between one and 10 months (Me=3.7 cm [3.2-4.3] vs 3.5cm [3.0-4.0], p<.0001), whereas the midpoint showed no difference: 3.5 cm [3.2-4.1] vs 3.6[3.0-4.0], p=.318). Thus, the midpoint was stable from the first-month post-operation. Conversely, comparing the distal point- the one not exposed to the mesh- it resulted significantly thinner compared to the midpoint at one (p<.0001) and ten months (p<.0001) and to the proximal point at one (1.15 cm, p<.0001) and ten months (p<.0001).

**Conclusions**

We reported the changes in vaginal wall thickness following robotic surgery for genital prolapse using titanized mesh with Pop-s. A significant initial thickening near the mesh insertion point was found, likely due to tissue response. The midpoint thickness remains consistent post-surgery, while the distal, meshless, point consistently thins. These insights may contribute to understanding post-surgical vaginal wall dynamics highlighting the importance of tailored diagnostic and therapeutic approaches in pelvic organ surgery.

**Invisible Scars, Rapid Recovery: Retrospective Comparison Between vNOTES Hysterectomy and Laparoscopic Hysterectomy**

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**Background**

Hysterectomy is an essential part of gynaecological surgery practice, and various techniques are used to develop minimally invasive approaches. This study aims to present a comparative analysis of vaginal natural orifice transluminal endoscopic surgery (vNOTES) hysterectomy and total laparoscopic hysterectomy (TLH).

**Methods**

We retrospectively examined 97 hysterectomy operations performed at Şanlıurfa Training and Research Hospital between April 2023 and April 2024. A total of 52 TLH cases and 45 vNOTES hysterectomy cases were evaluated. The clinical data of the patients were analysed, and the differences between the two groups were statistically evaluated.

**Results**

There was no statistically significant difference between the two groups in terms of age, parity, body mass index (BMI) and uterine weight ( $p > 0.05$ ). However, surgery time and hospital stay were significantly shorter in the vNOTES hysterectomy group compared to the TLH group ( $p < 0.001$ ,  $p < 0.001$ , respectively). Additionally, the decrease in hemoglobin after vNOTES hysterectomy is less than TLH ( $p = 0.042$ ).

**Conclusions**

vNOTES hysterectomy has a short operation time, short recovery time, decreased postoperative haemoglobin, and aesthetic advantages. However, the need for equipment and experienced surgeons limits its applicability. With the development of vNOTES technologies and the increase in vNOTES experience of surgeons, it will provide a serious advantage and be preferred over the total laparoscopic hysterectomy method in terms of less blood loss, less hospital stay, shorter operation times, less trauma, and better cosmetic results.

**Effectiveness and complication rates of high intensity focused ultrasound treatment for abdominal wall endometriosis: a systematic review**

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**Background**

Abdominal wall endometriosis (AWE) is particularly common in women who have undergone gynaecological surgery, especially caesarean sections (CSs). As CS rates increase worldwide, AWE cases are also expected to increase. Surgical excision is the only definitive treatment but is associated with complications and lesion recurrence in 12.5-28.6%. High Intensity Focused Ultrasound (HIFU) may be a non-invasive alternative treatment for AWE. The purpose of this study was to systematically review existing literature on effectiveness and complication rates of HIFU for AWE.

**Methods**

A systematic literature search on the effectiveness and complication rates of ultrasound-guided and magnetic resonance-guided high-intensity focused ultrasound (USg-/MRgHIFU) for abdominal wall endometriosis (AWE) was conducted in six databases in May/June 2023. Original articles of (non)randomized trials, cohort studies, case-control studies and case series published in peer-reviewed journals were included. Of the included studies the level of evidence (LoE) and methodological quality using the ROBINS-I and IHE-QAT was assessed. Primary outcomes were non-perfused volume ratio (NPV%), lesion size, pain scores, side effects and complication rates according to Society of Interventional Radiology (SIR) guidelines. Secondary outcomes were recurrence and re-intervention rates.

**Results**

Seven cohort studies (one of good methodological quality) (LoE 3) on USgHIFU were included (n=212, AWE lesions=240-245). Six months after USgHIFU treatment, pain scores were reduced with 3.3-5.2 points (baseline: 5.1-6.8, n=135). Self-limiting side effects were pain (85.7% (114/133)) and swelling (34.6% (46/133)) in the treatment area. Complications occurred in 17.7% (32/181), all of which were minor. Recurrence occurred in 12.8% (11/86). Three of these seven cohort studies compared USgHIFU (n=61) with surgical excision (n=74). Pooled results showed no significant differences in pain scores, complications (resp. 26.3% (10/38) vs. 32.6% (15/46) (p=0.53)) and recurrences (resp. 4.9% (3/61) vs. 5.4% (4/74) (p=0.90)).

**Conclusions**

This systematic review suggests that HIFU is an effective and safe treatment option for AWE. USgHIFU treatment led to reduced pain scores and lesion size, was free of major complications and had a pooled recurrence rate of 12.8%. Compared to surgical excision pooled results showed no significant differences in pain scores, complications and recurrences after USgHIFU. However, many of the included studies had limitations in their methodological quality and therefore the results should be interpreted with caution. Well-structured high-quality randomized controlled trials comparing HIFU to standard care should be conducted to provide more conclusive evidence.

**Medical VR, AR and Metaverse. Can Mixed Reality change the future of surgery?**

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**Background**

we describe the impact of new technologies (virtual reality, augmented reality, metaverse) into minimal invasive gynaecology

**Methods**

review of literature

**Results**

during the last decade we have witnessed an immersive evolution of 3d environment which has invaded into healthcare spurring a transformation in the day to day clinical and surgical practice.

virtual reality blends the artificial environment into a person's perception. vr has already proven its value in surgery, mainly in the training of junior surgeons and in the education of our patients which can be navigated around the hospital, can be informed about their treatment, their surgery and their post-operative course solely by wearing vr glasses.

technology has further evolved and now we have managed to combine the real world and the computer-generated environment, which is called augmented reality. augmented reality has been integrated into laparoscopy and robotic surgery and has allowed surgeons to visualize the underlying pathology of the patient's undergoing surgery. This accomplishment promises, if used correctly, to decrease the rate of complications and the stress and fatigue experienced by surgeons.

the combination of the above has led to an immersive 3d environment which allows distant clinicians to connect and interact lively during clinical assessment and surgical interventions. multiple health-tech companies, using metaverse, have managed to allow surgeons to interact lively during surgery, cooperate and help each other, without the limitation of physical distance.

the next step of surgical innovation is autonomous surgery. we have now come to a level that robotic systems, based on machine learning algorithms, can suture simple vaults, promising the possible automatization of the simple phases of surgical intervention, such as the suturing of the vaginal vault after a simple hysterectomy.

automatization of phases of surgery will not replace surgeons but will work as a valuable ally during surgery, as it will allow the surgeons to focus on more demanding and complicated phases of surgery, saving energy and stamina at the same time.

**Conclusions**

the technological evolution of vr, ar and metaverse, offers multiple advantages which, if used correctly, may transform the healthcare world and our surgical routine and at the same time create a safer environment for surgeons and patients likewise.

**Effect of body mass index on surgical outcomes in patients undergoing laparoscopic sacrohysteropexy and sacrocolpopexy**

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**Background**

**Abstract**

**Objective:** To compare perioperative and long-term outcomes of laparoscopic sacrohysteropexy (LSH) /sacrocolpopexy (LSC) in different weight groups.

**Methods**

This was a retrospective cohort study. Patients were evaluated preoperatively and postoperatively (starting from 1 month after surgery, and then annually). Medical charts of All patients who underwent laparoscopic sacrohysteropexy/sacrocolpopexy, between July 2011 and December 2021 were retrieved and reviewed. The study population was divided into three groups, according to Body mass index (BMI) at time of surgery: group 1- patients with BMI less the 25 kg/m<sup>2</sup>, group 2- patients with BMI 25-30 kg/m<sup>2</sup>, and group 3- patients with BMI higher the 30 kg/m<sup>2</sup>. The primary outcome was the rate of perioperative complications. The secondary outcome was the comparison of long-term results between the groups.

**Results**

Altogether 246 patients were included: 145 in group 1 (mean BMI 21.9±2), 88 patients in group 2 (mean BMI 27.1±1), and 13 patients in group 3 (mean BMI 33.0±3). LSH was more frequent than LSC in all groups. The overall perioperative complications rate (up to 30 days after surgery) was 6.3%. No differences between the groups in operative details and rates of perioperative complications were observed. During follow up period, 37 patients (12.2%) presented with prolapse recurrence (objective and/or subjective), the rates of prolapse recurrence, as well as long-term complications, were similar between the groups. Similarly, the groups did not differ in postoperative functional results except for postoperative constipation (group 1- 14.5%, group 2- 23.8%, group 3- 25%, p=.001).

**Conclusions**

Laparoscopic sacrohysteropexy/sacrocolpopexy is associated with low rates of perioperative complications. Patients' BMI do not seem to affect rates of complications and/ or long-term outcomes.



### Adnexal surgery using vNOTES: a prospective cohort study

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#### Background

Natural Orifice Transluminal Endoscopic Surgery (NOTES) is a minimally invasive surgical technique that involves accessing the abdominal cavity through natural orifices, such as the vagina (vNOTES) [1]. Adnexal surgery using vNOTES was first described in 2012 and has been increasingly used for several benign indications [2]. Feasibility and safety of this technique have been demonstrated for several adnexal indications. While the evidence includes one high-quality randomized controlled trial for adnexectomy [3], the remaining evidence is of lower quality. Therefore, this prospective cohort study was conducted to contribute to the existing evidence.

#### Methods

It concerns a prospective cohort study of 69 patients who underwent adnexal surgery using vNOTES between March 2020 and April 2024 in the Zuyderland MC, by two experienced vNOTES surgeons (MW and NS). Baseline characteristics, perioperative- and postoperative outcomes were registered and analysed.

#### Results

All 69 procedures were performed for benign indications (table 1). The average age was 44.7 years (range: 22-74), with a mean BMI of 26.1 kg/m<sup>2</sup> (range: 19.1-43.3). The mean surgical time was 39 minutes (range: 17-75), and mean blood loss was 27 mL (range: 5-300). Two cases required conversion to laparoscopy, one case due to an inaccessible pouch of Douglas and another case due to adhesions. Two (2.9%) intraoperative complications occurred, involving thermal lesions to the small and large intestine. Planned same-day discharge was achieved in 62 of 69 cases (90%), with a mean VAS score of 1 at discharge. Postoperatively, there were four (5.8%) complications: two cases of phlebitis and two urinary tract infections (Clavien Dindo grade 1 and 2).

*Table 1. Indications for surgery*

<b>Indication</b>	<b>n (%)</b>
Wish for artificial menopause	1 (1,4%)
Extra-uterine gravidity	3 (4,3%)
Risk reducing adnexal surgery	12 (17,4%)
Ovarian cysts (unilateral or bilateral)	13 (18,8%)
Definitive contraception	40 (58%)

#### Conclusions

Adnexal surgery performed using vNOTES is a feasible and safe technique, offering benefits such as minimal pain and blood loss, absence of scars, and potential same-day discharge. However, further research is necessary to compare the differences between vNOTES and conventional laparoscopy in adnexal surgery.

### Uncovering the invisible: Automated instrument detection in robot-assisted total hysterectomy

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#### Background

In the effort of improving surgery and surgical skill, gaining a deeper insight into the surgery is key. Investigation of surgical instrument presence can show points of improvement for the surgeon and the surgery itself. Manual analysis requires a large amount of time and resources and is not scalable to larger amounts of videos. Automated instrument detection could solve this issue, but development usually requires large, labelled datasets. We explored the feasibility of adapting automated techniques already developed for another type of surgery for use in Robot-Assisted Total Hysterectomy (RATH), the most common gynaecological surgical procedure.

#### Methods

A YOLOv8 deep learning network was trained on labelled renal surgery data available in-house. The training dataset consisted of surgical recordings of partial nephrectomies performed on the Intuitive® Xi Surgical System. The network was trained and optimised to detect all non-organic objects in the surgical frame. The resulting model was then combined with optical character recognition (OCR), which reads the names of the robotic instruments at the bottom of the screen. This combination resulted in an algorithm that was used to perform automatic non-organic object detection. The feasibility of adapting this algorithm to the field of gynaecological surgery was tested by applying the algorithm to a surgical recording of a RATH procedure. The surgical image was acquired on the Intuitive® Xi Surgical System and was fully anonymised before further processing. The accuracy of the algorithm on the RATH procedure was calculated by comparing the predicted instrument presence with the ground truth. The ground truth was obtained by sampling the RATH surgical image at 0.05 Hz and manually delineating all non-organic objects in the sampled images.

#### Results

The trained YOLOv8 model alone achieved an accuracy of 34.7%. The addition of the OCR algorithm increased the accuracy to 60.1%. Qualitative assessment showed accurate instrument detection but poor performance in the classification of the instruments, especially for the different kinds of forceps.

#### Conclusions

The YOLOv8 network alone can detect objects quite accurately, but it does not recognise certain robotic instruments specific to RATH and misclassifies them. This is to be expected, as the model has never seen these instruments before. OCR corrects these errors to some extent, allowing an increase in accuracy, but it is not able to provide fully reliable instrument detection. A partial explanation could be the simultaneous use of different forceps, which confuses the algorithm. However, we believe that automated instrument detection using this approach is feasible but will require further fine-tuning of the OCR algorithm. Future work would include expanding the test dataset, further developing the OCR, and possibly retraining the YOLOv8 algorithm with a limited dataset of RATH recordings to achieve optimal results.

## **Applications of Innovative Technologies in Gynaecology: A Systematic Review and Meta-Analysis**

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### **Background**

Aim: This systematic review synthesizes research on the applications and outcomes of innovative technologies, including Artificial Intelligence (AI), robotics, Augmented Reality (AR), and Virtual Reality (VR), specifically in gynaecology.

Objectives:

- 1.
2. To assess the clinical outcomes of robotic-assisted surgeries in gynaecology.
3. To explore the use of AR and VR in gynaecological medical education and patient experience.

### **Methods**

A comprehensive literature search was conducted using PubMed, Google Scholar, and IEEE Xplore databases, covering studies from January 2010 to May 2024. Inclusion criteria included peer-reviewed articles, clinical trials, and case studies investigating AI, robotics, AR, or VR in gynaecology. Data extraction focused on study design, technology type, application, and clinical outcomes. Meta-analysis techniques were employed where applicable, using mean differences, odds ratios (OR), and 95% confidence intervals (CI). Statistical significance was determined with p-values.

Statistical Analysis:

Software: R (version 4.1.0) and SPSS (version 27).

Tests: Descriptive statistics, random-effects model meta-analysis, I<sup>2</sup> statistic and Q-test for heterogeneity, standardized mean differences (SMD) and OR with 95% CI, significance testing with p-values ( $p < 0.05$ ), and funnel plots and Egger's test for publication bias.

### **Results**

The review included 100 studies. AI applications in gynaecology were highlighted in 40 studies, showing high accuracy (AUC > 0.85) for predicting conditions such as ovarian cancer, endometriosis, and cervical dysplasia. Robotic-assisted surgeries, examined in 35 studies, showed significant reductions in operative times (mean difference = -18.7 minutes,  $p < 0.01$ ) and lower complication rates (OR = 0.70, 95% CI [0.55, 0.90]) compared to traditional laparoscopic techniques. AR and VR technologies were used in 25 studies to enhance medical education and patient experiences. VR simulations improved surgical procedural skills (mean score improvement = 15%,  $p < 0.05$ ) and reduced patient anxiety (mean anxiety score reduction = 1.3,  $p < 0.01$ ) before undergoing procedures.

### **Conclusions**

The integration of AI, robotics, AR, and VR technologies in gynaecology shows promising advancements. AI models are effective in early detection and prediction of gynaecological conditions, improving patient outcomes. Robotic-assisted surgeries provide superior outcomes over traditional methods, emphasising precision and reduced operative times. AR and VR are valuable in medical education, enhancing learning experiences and reducing patient anxiety. Further research is necessary to standardise protocols and evaluate long-term benefits and cost-effectiveness in clinical practice.

**A prospective cohort control study comparing vaginal Natural Orifice Transluminal Endoscopic Surgery with Conventional Laparoscopic Surgery in the management of ectopic pregnancies**

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**Background**

While laparoscopic salpingectomy is the surgical treatment of choice for ectopic pregnancy, vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) approach is emerging as an alternative route with its avoidance of abdominal incisions and good optical visibility. The authors compare demographics and outcome data of vNOTES versus conventional laparoscopic salpingectomy for the management of ectopic pregnancy.

**Methods**

A prospective cohort control study at a university hospital looking at all women having a vNOTES salpingectomy for an ectopic pregnancy between January 2023 and March 2024 (n=25). Control group comprised 25 patients with ectopic pregnancy who underwent a conventional laparoscopic salpingectomy over the same period. The data was collected prospectively, with missing information extracted from the hospital electronic records and verified using patients' physical case notes. Demographic data obtained included maternal age, body mass index (BMI), parity status, gestational age, size of ectopic and  $\beta$ hCG levels while outcome data comprised duration of surgery, estimated blood loss (EBL), length of stay, Visual Analogue Scale (VAS) pain score at 24 hours and intra and postoperative complications (Clavien-Dindo Classification).

**Results**

The mean patient age (29.7 $\pm$ 5.3 vs 31.4 $\pm$ 6.7 days), parity (1.2 $\pm$ 1.1 vs 1.6 $\pm$ 2.1), BMI (26.7 $\pm$ 5.3 vs 27.2 $\pm$ 5.4 kg/m<sup>3</sup>), gestation age (8.44 $\pm$ 2.1 vs 7.3 $\pm$ 1.7 weeks) and  $\beta$ hCG levels (3725.4 $\pm$ 3674.8 vs 4376.5 $\pm$ 6493.4 mIU/ml) were comparable ( $p > 0.05$ , t test) between patients having vNOTES vs conventional laparoscopic salpingectomy. While estimated intraoperative blood loss is similar (218.2 $\pm$ 491.7 vs 173.5 $\pm$ 138.7 mls) ( $p > 0.001$ ), vNOTES patients had statistically shorter duration of surgery (35.8 $\pm$ 14.4 vs 75.8 $\pm$ 19.7 mins) ( $p < 0.001$ , t test) and length of stay (12.2 $\pm$ 9.1 vs 21.8 $\pm$ 13.9 hours) ( $p = 0.02$ , t test). Less patients in the vNOTES group required postoperative opioids (9% vs 25%) and mean Visual Analogue Score (/10) for pain at 24 hours was significantly lower (2 $\pm$ 0.5 vs 5 $\pm$ 1.9) ( $p < 0.05$ , t test). Furthermore, patients from the vNOTES group were able to return to normal daily activity almost three times quicker (5.8 $\pm$ 4.3 vs 17.1 $\pm$ 8.2 days) ( $p < 0.05$ , t test).

**Conclusions**

vNOTES cases cost approximately £130 (USD150) more than conventional laparoscopy, mainly due to the price of the commercial kits but this is offset by the shorter intraoperative time and length of stay. These patients also reported less postoperative pain and were able to return to normal daily activity almost three times quicker than conventional laparoscopy. While the vNOTES approach for ectopic pregnancy appears safe and efficacious, more robust data from larger randomised studies are needed to support this.

### Novel vNOTES assisted ovarian cystectomy in management of Anti-NMDA Receptor Encephalitis Secondary to Dermoid Cyst

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#### Background

Anti-N-methyl-D-aspartate (NMDA) receptor encephalitis is a rare autoimmune disorder within the paraneoplastic syndrome spectrum, characterized by neuropsychiatric symptoms. Ovarian teratomas may ectopically express the NMDA receptors, resulting in an immune response to the receptor, which is then misdirected towards the neuronal antigens.

We present a novel case of a 32-year-old nulliparous woman with a one-week history of headache, confusion and worsening dysarthria. She eventually required sedation and intubation in the Intensive Care Unit (ICU) for progressively increasing agitation and respiratory failure. While ventilated on ICU, she developed sporadic neurological seizures and required noradrenaline support for episodes of bradycardia and asystole associated with hypotension.

#### Methods

Cardiac, respiratory, abdominal and neurological examinations were normal. Computerised tomography (CT) and magnetic resonance imaging (MRI) of the head revealed no space occupying lesions or infarcts. Electroencephalography reported moderate non-specific encephalopathy. Cerebrospinal fluid sample showed normal biochemistry analysis, microscopy and no growth on culture, but was positive for anti-NMDA receptor antibodies. CT scan of the pelvis revealed a 7cm dermoid cyst and a diagnosis of anti-NMDA receptor encephalitis was made. Ten days following admission, she underwent Vaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) ovarian cystectomy on the basis that this was the least invasive route for the procedure.

#### Results

Histopathology confirmed “an ovarian mature cystic teratoma containing mature neural and epithelial elements intermixed with mature lymphocytes. Abundant glial tissue and choroid plexus was seen with prominent scattered lymphoid aggregates around the glial tissue - appearances often seen in the anti-NMDA receptor encephalitis cases”.

Post-operatively, she was commenced on intravenous immunoglobulins, methylprednisolone and Tenofovir. She was weaned off sedation three weeks after her vNOTES procedure and gradually became more alert and responsive, breathing spontaneously and not requiring cardiovascular support. Four weeks following her procedure, she was commenced on intravenous rituximab to prevent autoimmune relapses.

#### Conclusions

vNOTES ovarian cystectomy for ovarian dermoid in the management of NMDA receptor encephalitis has not been previously described. Given the complexity of our patient, who was already intubated in ICU and suffering from cardiac dysrhythmias, the low maintenance pressures used in vNOTES (6–10 mmHg vs 12–16 mmHg in conventional laparoscopy) meant that less anaesthetic ventilation was required, together with a lower risk of insufflation-induced bradycardia and carbon dioxide resorption. The shorter duration of surgery, avoidance of abdominal scars, lower pain scores and more rapid recovery compared to conventional laparoscopic adnexectomy are relevant points to consider in this unusual case.

### Early experience with gasless vaginal laparoscopy-assisted adnexal surgery

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#### Background

Transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) has been widely adopted in recent years. Compared to conventional laparoscopy, this technique combines access and visualization afforded, and could allow higher satisfaction, and less postoperative pain. Gasless technique with vaginal access could decrease postoperative pain while preserving vNOTES technique advantages in terms of visibility and comfort.

The aim of this study was to report data of gasless technique applied to vNOTES in adnexal benign surgeries.

#### Methods

Patients from two French centres admitted for adnexal benign surgeries and performed with gasless vNOTES were included. vNOTES gasless technique consisted in surgery as conventional vNOTES, but without pneumoperitoneum insufflation. Exposure was ensured by the placement of one or two humidified gauze packing strip and surgery was performed as usual. Data from medical records about surgical procedure and post-operative outcomes were described.

#### Results

Between July 2023 and April 2024, 50 patients were included. No vaginal birth was reported for 21 (42.0%) patients, and 13 (26.0%) patients had previous abdominal or pelvic surgery. The most common surgery (36.0%) was bilateral salpingectomy, and 10 cystectomies were performed. No intraoperative complication was reported apart from a long and difficult resection during an associate hysteroscopic myomectomy. Median duration of vNOTES procedure was 21 minutes (min=15 minutes; max 60 minutes). Forty-five patients (90.0%) of patients were managed with ambulatory conditions. Five (10.0%) patients needed intravenous analgesic in the recovery room, and five other patients needed oral painkillers before leaving hospital. Four hours after surgery, all patients but one was pain-free. The patient reported pain rated it 1/10, and did not need analgesic. One patient (2.0%) developed a tubo-ovarian abscess 13 days after a bilateral salpingectomy, managed with conventional laparoscopy and antibiotherapy.

#### Conclusions

vNOTES gasless technique appeared to be a safe procedure. It could reduce pain, particularly that associated with pneumoperitoneum.

**Pregnancy outcomes after laparoscopic treatment versus medical treatment in endometriosis-associated infertility patients: a prospective randomized controlled study**

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**Background**

Endometriosis is caused by the presence of endometrial implants outside the uterine cavity. Laparoscopy is considered as the golden standard for accurate diagnosis and treatment of Endometriosis. We have introduced a prospective randomized controlled study to evaluate the effectiveness of laparoscopic therapy of endometriosis versus only medical treatment on fertility results. The study was well designed and took under consideration a lot of important and interesting factors, which could influence the pregnancy outcomes with the aim of stratifying evidence-based therapy strategies for patients with endometriosis related infertility.

**Methods**

A total of 300 patients, from January 2015 until December 2022, between the ages of 25 and 40 years with pelvic Endometriosis complicated with infertility, were prospectively blindly randomized in group A (150 women) which underwent laparoscopy in our hospital, versus group B (150 women) which did not have laparoscopy but medical treatment with contraceptives and with or without Gonadotrophin Releasing Hormone-agonist (GnRh-a). All these 300 women, in these two groups were followed up for at least 2 years to assess fertility outcome. The two groups were well matched according to age, hormonal, status, Anti mullerian Hormone (AMH), Body Mass Index (BMI), secondary diseases, sperm quality and quantity of the man and other characteristics to avoid bias. The laparoscopies were all performed by the same two experienced gynaecologists of the clinic with the goal of complete excision of endometriosis and with tissue-sparing approaches for ovarian preservation. All statistical analyses were conducted using SPSS Statistics, version 25.0 (IMB Corp. Armonk, NY USA). P values <0,05 were considered statistically significant.

**Results**

115/150 patients (76,66 %) of the group A conceived whereas only 50/150 (33,33%) of the group B conceived respectively. Univariate logistic regression analysis indicated that the significant factors for influencing pregnancy rate were the following: treatment with laparoscopic surgery, age, infertility types: primary or secondary infertility, revised- American Fertility Society grading (r-AFS g) and treatment with GnRh-a in advanced stages of endometriosis in both groups. Multivariate logistic regression using all the factors also revealed that treatment with laparoscopic surgery especially when endometriotic lesions were bigger than 3 cm, age, infertility types, r-AFS g and treatment with GnRh-a in advanced stages of endometriosis were positively correlated and were the significant factors to influence pregnancy outcomes.

**Conclusions**

In this prospective randomized controlled study, we found out that treatment with laparoscopic surgery, age, infertility type, use of GnRH-a in advanced stages of endometriosis, r-AFS g of the disease were found to be statistically significant and were found to be the factors which influenced the pregnancy outcome.

### Timing Matters: Unveiling the Efficiency of Oocyte Retrieval for Enhanced Theatre Scheduling

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#### Background

Despite the critical importance of oocyte retrieval (OR) in assisted reproductive technologies, existing literature provides minimal to no guidance on the expected duration of this procedure and its impact on operational efficiency. Understanding the duration of OR surgeries is essential for improving scheduling accuracy, reducing delays, and optimizing resource utilization in fertility clinics. It also reduces the risk of ovulation prior to OR and resulting poor outcomes. Our study addresses this significant gap by analysing the surgical times involved in OR based on the follicles seen in the last scan prior to the OR, aiming to establish benchmarks that can aid in the precise planning and allocation of theatre time.

#### Methods

This retrospective analysis included all patients undergoing OR at the Fertility Unit of Homerton University Hospital, between 1 September 2023 and 31 March 2024. Conducted as a quality improvement initiative, the study did not require additional patient consent. Data were collected from electronic patient records, detailing the number of follicles >12mm in diameter from the last scan (typically two days prior to OR), the number of oocytes retrieved, the experience level of the operator, the surgical time, and other operational times. Surgical time was recorded from the insertion of the needle into the ovary to the retrieval of the final oocyte. Senior doctors had at least four years of experience in OR surgeries, while juniors had less than a year's experience. Data analysis was performed using Microsoft Excel.

#### Results

Our study analysed 213 OR procedures, performed by five senior (119 OR) and two junior (94 OR) clinicians. Patients were categorized into groups based on follicle count: Group 1 ( $\leq 10$  follicles), Group 2 (11-20), and Group 3 ( $> 20$ ). The average number of follicles and oocytes retrieved were 13.43 and 13.09 respectively, with a strong positive correlation between the two (correlation coefficient of 0.85,  $p < 0.001$ ). The oocyte recovery rate was exceptionally high at 0.97. Regression analysis revealed significant differences in surgery duration across groups, with Group 1 averaging 14.6 minutes, while Group 2 and Group 3 procedures taking on average 8.2 and 14.9 minutes longer, respectively ( $p < 0.001$ ). Surgeries performed by junior clinicians were longer by an average of 5.1 minutes compared to seniors ( $p < 0.001$ ) (Figure 1). Other procedural times, including intervals between patients and presence in the theatre without surgery, averaged an additional 20 minutes per procedure (Table 1). Interestingly, further analysis incorporating the day of the week indicated that procedures on Fridays took significantly longer, with an average increase of 3.3 minutes ( $p = 0.0013$ ).

#### Conclusions

Our study demonstrates how follicle count and clinician experience significantly influence the duration of OR surgeries. By establishing these critical predictors, our findings provide valuable benchmarks for more efficient scheduling and resource allocation in fertility clinics, ultimately enhancing operational efficiency and patient care.



### Immunohistochemical expression of heme oxygenase-1 (HO-1) and the autophagy-related protein Beclin-1 in abdominal wall endometriomas

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#### Background

Abdominal wall endometrioma (AWE) is defined as the presence of endometrial glands and stroma embedded within the layers of the abdominal wall during obstetrics or gynaecological surgeries. Autophagy, which maintains cell homeostasis, plays an important regulatory role in cell survival and death. Beclin-1 is a key protein in the regulation of autophagy, and its expression is altered in the ectopic endometrium of women with endometriosis. In addition, an antioxidant enzyme associated with endometriosis, heme oxygenase-1 (HO-1), is an important mediator that allows the resolution of inflammatory processes. However, little is known about the expression of HO-1 and Beclin-1 in AWE.

#### Methods

We performed a prospective, single-centre cohort study, enrolling 24 patients who underwent surgery. Normal endometrial tissues were obtained by Pipelle biopsy from 12 women without endometriosis undergoing laparoscopy for benign non-endometrial pathology. AWE samples were taken from 12 women at the time of the surgical excision of the AWE. The AWE and normal endometrium samples were taken during the follicular phase endometrium. After tissue processing and paraffin embedding, sections were cut at 5 µm. Tissue sections were stained immunohistochemically for HO-1 using HO-1 antibody (E8B7A, cat.no.CST26416S) and Beclin-1 using Beclin-1 antibody (EP304, cat.no.AC-0276RUO). Image J software was used to analyse the expression of HO-1. The immunoreactive score (IRS) was performed to assess Beclin-1 expression. Mann-Whitney test, Pearson chi-square analysis, and Spearman correlations were used to compare the results among groups. p-value <0.05.

#### Results

The mean age of the patients was 33.50±6.19 years in the AWE group and 37.33±5.23 years in the normal endometrium group (p=0.078). Age, body mass index, smoking status, diagnosis of endometriosis, visual analogue scale (VAS) for dyspareunia, dysmenorrhea, non-cyclic pelvic pain was not significantly different between the two groups (p >0.05). Moreover, HO-1 immunostaining was not detected in endometrial glandular cells. While the expression of HO-1 in endometrial stromal cells was higher in the AWE group (101.44±47.35) compared with the normal endometrium group (93.06±26.58), there was no significant difference in the expression of HO-1 between the two groups. Beclin-1 expression in endometrial stromal cells was significantly higher in the AWE group (9.28±1.39) compared with the normal endometrium group (5.88±1.81) (p=0.000). Similarly, the expression of Beclin-1 in endometrial glandular cells was significantly higher in the AWE group (9.83±1.48) compared with the normal endometrium group (8.40±0.82) (p=0.013). HO-1 expression was positively correlated with carcinoembryonic antigen (CEA) (r=0.623, p=0.030) and VAS for non-cyclic pelvic pain (r=0.612, p=0.035). Beclin-1 expression was positively correlated with age (r=0.753, p=0.005).

#### Conclusions

Our study has shown, for the first time, that Beclin-1 expression in endometrial stromal and glandular cells was significantly higher in the AWE group compared with the normal endometrium group. In the future direction, Beclin-1 may be a potential therapeutic target in the clinical treatment of AWE.

### Role of artificial intelligence applied to ultrasound in gynaecology oncology: a systematic review

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#### Background

to explore the role of artificial intelligence (ai) applied to ultrasound imaging in gynaecology oncology.

#### Methods

web of science, PubMed and Scopus databases were searched. Inclusion criteria were studies reporting the role of AI in the diagnosis of gynaecological cancer. all studies retrieved from the search strategy were imported to rayyan qcri software. the overall quality of the included studies was assessed using quadas-ai tool.

#### Results

fifty studies were included: of these 37/50 (74.0%) on ovarian masses or ovarian cancer, 5/50 (10.0%) on endometrial cancer, 5/50 (10.0%) on cervical cancer and 3/50 (6.0%) on other malignancies. most studies were at high risk of bias for subject selection and index test domains, whereas there was a generally low risk of bias for reference standard and workflow domains. 35/50 (70.0%) studies were single centre studies while 7/50 (14.0%) multicentre. 32/50 (64.0%) studies included less than 500 women, while four studies more than 1,000. most studies presented machine learning models (33/50, 66.0%) for the diagnosis and histopathological correlation of ovarian masses detected on ultrasound, while others focused on automatic segmentation, reproducibility of radiomics features, improvement of image quality, prediction of therapy resistance, progression free survival and genetic mutation.

#### Conclusions

the published literature on AI applied to ultrasound in gynaecology oncology focused mostly on histopathological correlation of ovarian masses. the current evidence supports the role of ai as a complementary clinical and research tool in diagnosis, patient stratification and prediction of histopathological correlation in gynaecological malignancies.

**Comprehensive Assessment and Management of Endometriosis in a One-Stop Chronic Pain Clinic: A Retrospective Analysis**

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**Background**

This retrospective analysis explores the effectiveness of a one-stop chronic pain clinic in assessing and managing cases of endometriosis. The clinic employs a comprehensive approach, including history-taking, physical examination, ultrasound evaluation, using visualization aids for patient education 3D models and discussions about holistic management options, including conservative, medical and surgical interventions.

**Methods**

Patients presenting with suspected endometriosis underwent a thorough assessment, including detailed history-taking, physical examination, and ultrasound evaluation. 3D models were utilized to aid in patient education and treatment planning. Discussions regarding holistic management options, including conservative measures and surgical excision, were held with each patient. Follow-up plans were tailored to individual patient preferences and clinical findings.

**Results**

Of the 22 cases reviewed:

- 41% (9 cases) were diagnosed with endometriosis and opted for conservative management with patient-initiated follow-up.
- 9% (2 cases) were confirmed to have stage 4 endometriosis, opted for excision of DIE.
- 31% (7 cases) opted for hormonal therapy with planned follow ups.
- 5% (1 case) was deemed unlikely to have endometriosis and was discharged.
- 9% (2 cases) required further MRI evaluation for possible bowel involvement.
- 5% (1 case) was referred to fertility services for fertility workup despite imaging showing no signs of endometriosis.

**Conclusions**

The one-stop chronic pain clinic provides a comprehensive and patient-centred approach to the assessment and management of endometriosis. By offering a range of diagnostic and treatment options in a single setting, patients receive timely and individualized care, facilitating informed decision-making and optimal outcomes. Further research is warranted to evaluate long-term patient satisfaction and clinical outcomes in this model of care.

### Bartholin endometrioma

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#### Background

Endometriosis is commonly encountered in areas of predilection in the pelvic cavity. However, its presence in extra-genital, and extra-pelvic sites is also documented. Several theories have been proposed to explain its presence in such remote areas. Among these theories are direct, lymphatic or haematogenous spread, or de-novo metaplastic transformation.

Bartholin gland is an extra-pelvic exocrine gland, where the presence of ectopic endometriotic foci have been reported in literature, even from our own tertiary centre. It has been proposed that direct inoculation during labour is the causative factor. However, we report a case of a virgo intacta patient, where endometriosis was presented, refuting the above-mentioned direct implantation theory.

#### Methods

We hereby report a case of a 45 years old virgo intact patient, who presented with a progressively enlarging, mildly tender lesion in the vulva, for which she sought medical advice, and was diagnosed to be a Bartholin cyst. She had no relevant medical or surgical history.

#### Results

The patient was counselled for marsupialization of the Bartholin gland, for which she agreed and was operated. During examination under anaesthesia, our attention was caught by the different colour hue of the supposed Bartholin cyst. We proceeded with the standard technique for marsupialization, but after the cyst was removed intact, and on opening it before sending for histopathological examination, a gush of chocolate material was encountered.

Histopathological examination confirmed the clinical diagnosis of Bartholin endometriotic cyst.

#### Conclusions

Endometriotic lesions can be found in bizarre sites, so, it should always be kept in mind. Alternative theories for the development of endometriotic tissues in remote sites should be contemplated, as direct inoculation or vascular spread do not seem to apply to all such cases.

**inflammatory bowel diseases and endometriosis: a non-invasive ultrasound evaluation to deal with overlapping symptoms**

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**Background**

Inflammatory Bowel Diseases (ibd) and endometriosis are chronic inflammatory diseases occurring in young women, sharing some clinical manifestations. We aimed to evaluate, in a multidisciplinary approach, the presence, type and site of pelvic endometriosis in ibd patients with specific symptoms correlated to endometriosis/adenomyosis, and whether there are differences in evaluating endometriosis localizations between the types of ibd, ulcerative colitis (uc) and Crohn's disease (cd).

**Methods**

In this study, we included 51 premenopausal ibd patients showing symptoms compatible with endometriosis/adenomyosis such as dysmenorrhea, dyspareunia dyschezia, dysuria and heavy menstrual bleeding (hmb). Patients were referred to dedicated gynaecologists for assessing pelvic endometriosis by transvaginal sonography (tvs). The presence, type and site of endometriosis was described. We excluded ibd patients without any specific endometriotic symptoms. The control group was represented by patients with endometriosis but without ibd matched 1:4.

**Results**

Endometriosis was detected in 35 (68.6 %) out of 51 ibd patients with compatible symptoms; among these 19 (54.3%) had uc and 16 (45.7%) had cd. In our ibd population 43/51 (84.3%) patients had dysmenorrhea. These women had a higher percentage of endometriosis compared to women without dysmenorrhea (74.4% vs 37.5%,  $p=0.04$ ), specifically the lateral deep infiltrating endometriosis (die) (51.2% vs 12.5%,  $p=0.04$ ). Dysmenorrhea and hmb were significantly more frequent in ibd patients with endometriosis compared to ibd patients without endometriosis (91.4% vs 68.7%,  $p=0.04$ ; 74.3% vs 43.75%,  $p=0.04$ ). In particular lateral die was significantly more frequent in uc patients compared to cd ones (84.2% vs 43.8%,  $p=0.01$ ). die was more frequent in ibd patients with endometriosis compared to the control group, patients with endometriosis but without ibd (94.3% vs 80.0 %  $p=0.04$ ).

**Conclusions**

Dysmenorrhea is a common symptom among ibd patients; usl localization is the most represented site of endometriosis in patients with dysmenorrhea and ibd. Endometriosis was detected in a high percentage of patients with ibd and compatible symptoms. An accurate evaluation of ibd patients with specific symptoms by using tvs could help to detect endometriosis and better manage these patients.

**ABST-0678 - P336**

**ePoster and Video Presentations**

**One step diagnosis (3D TV-USG/hysteroscopy) of hemi-uterus (U4 for ESHRE/ESGE classification) and evaluation of reproductive outcomes.**

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### **Background**

To evaluate the role of the combined approach (3D TV ultrasound and hysteroscopy) in assessing the reproductive outcomes in women with a hemi-uterus (U4 for ESGE/ESHRE 2013).

### **Methods**

This was a single-centre, retrospective cohort study experience. Cases were women who underwent a diagnostic hysteroscopy for infertility or recurrent pregnancy loss between 2017 and 2024 at the Gynaecological Unit of the University Hospital of Naples "Federico II". The patients underwent at the same time 3D TVS scan and hysteroscopy in one single step. All patients received the diagnosis of unicornuate uterus for the first time in our centre.

### **Results**

40 patients were retrospectively enrolled. 3D TV ultrasound confirmed the hysteroscopic diagnosis of unicornuate uterus in all cases. 18/40 patients (45%) had primary infertility and approximately 40% of our patients had at least a first-trimester spontaneous abortion and only 1 woman has practiced 1 IVG and then no longer got pregnancies. Rudimentary communicating uterine horn was not observed. Overall, 8/40 (20%) patients had at least one pregnancy with a live birth (62% full term but completed by caesarean section, 38% preterm delivery and she received tocolytics for preterm labour). Of the patients who had a pregnancy, only 25% managed to have a second one. Among patients with primary infertility 50% had direct signs of adenomyosis (inner and outer myometrium) at the ultrasound study and 33% of patients with secondary infertility had adenomyosis involvement of the junction zone. The study group (U4) was compared with two other groups (40 normal uterus U0) and (40 with septate uterus U2a/b) according to the ESHRE/ESGE 2013 classification, verifying that cavity volume had an impact on the reproductive outcomes of these patients (p-value < 0.05).

### **Conclusions**

The ultrasound diagnosis performed by an expert sonographer is an effective and safe method of diagnosis and can be co-adjuvanted by the use of a diagnostic hysteroscopy in a single step. The unicornuate uterus is a rare anomaly diagnosed mostly during infertility work-up and might be related to the poor obstetric outcomes, but early diagnosis is important for successful pregnancy results for preterm delivery.

**ABST-0537 - P050**

**ePoster and Video Presentations**

**Pelvic cystic lymphangioma, a case report**

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**Background**

This is the case of a 37-year-old woman who presented diffuse abdominal pain for many months. Her history includes three vaginal births and only a one intervention: bilateral tubal ligation. The patient presents an unremarkable examination and only an asymptomatic endometrial polyp is visible on ultrasound.

**Methods**

A TC scan is requested in which a 198x180x52 mm cystic tumour is visualised. The tumour extends in the pelvis towards both parauterines regions without a plane of cleavage with de uterus. The lesion causes a mass effect with dislocation of the bladder to the right.

The patient is referred again to gynaecology due to suspicion of an ovarian tumour.

The complete examination is repeated, being normal again, and an MRI is performed. The MRI describes a mass that does not depend on any structure and that conforms to the existing space.

Given these findings it seems to correspond to a pelvic cystic lymphangioma.

Now the patient is waiting to perform a laparoscopy.

**Results**

Lymphangioma is a type of benign tumour of the lymphatic vessels, it is a hamartomatous malformation, usually congenital, of the lymphatic system.

They are rare in adulthood, usually appearing in childhood as large masses of soft tissues that tend to grow. Most of them are located in the head, neck and armpit (e.g. cystic hygromas in foetal life). Intra-abdominal localization, both retroperitoneal and mesenteric, is unusual.

The diagnosis is usually incidental, especially in adults, since the symptoms they generate are non-specific and can go unnoticed. The most common symptoms are compression or displacement of neighbouring structures. In the case of abdominal lymphangiomas, they can cause abdominal pain, nausea or vomiting, intestinal obstruction, displacement of the kidneys, ureters, ovarian torsion...

Ultrasound is the diagnostic test of choice. Sometimes they may not be detected with this technique due to their hypoechogenicity in some cases similar to adyacent tissues. CT scan or MRI may be alternatives to ultrasound. Treatment is surgical, with resection and histopathological study.

**Conclusions**

Lymphangiomas are benign tumours of the lymphatic vessels.

They usually occur in intrauterine life or in children. They very rarely appear in adulthood.

It is most commonly located on the head, neck and armpit.

The abdominopelvic location is uncommon.

Symptoms are very non-specific, such as compression of adjacent structures.

The diagnosis is incidental.

Treatment is surgical and curative if it is completely removed

**Fast Track to Recovery: Early Catheter Removal after Laparoscopic Colposuspension Reduces Hospital Stay without Compromising Outcomes**

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**Background**

Applying enhanced recovery after surgery (ERAS) protocols to patients undergoing laparoscopic colposuspension could improve postoperative outcomes and reduce length of inpatient stay. Early catheter removal is one such intervention, however evidence regarding same day catheter removal and patient outcomes is lacking. Our study aimed to look at these outcomes, namely length of hospital stay, incidence of urinary retention, urinary tract infection (UTI) and requirement for intermittent self-catheterisation (ISC). We also aimed to evaluate the subjective impact of incontinence on quality of life before and after surgery, as measured by ICIQ-UI SF score.

**Methods**

A retrospective analysis was carried out on patients who had laparoscopic colposuspension performed at University Hospital Crosshouse between May 2014 and March 2023. Fifty-seven patients were identified from our database and the medical records were retrieved for data collection. Four patients had insufficient records for data collection and were excluded from the study.

**Results**

All 53 patients included in our analysis had instructions for timing of catheter removal documented by the surgeon in their operation note. The average time to catheter removal was 8.29 hours postoperatively, excluding a patient who required catheter insertion following a bladder injury. Four (7.4%) women had immediate catheter removal in theatre and were discharged on the day of surgery, none of whom had postoperative urinary retention, requirement for ISC, UTI, or readmission to hospital.

Four (7.4%) women developed postoperative urinary retention. Of these patients, 2 required ISC after discharge, one of whom had recurrent UTIs and the other was performing ISC prior to surgery. The other 2 patients required a further single catheterisation while still inpatients, after which the urinary retention resolved.

The average length of inpatient stay for all patients was 1 night. There is a significant positive correlation ( $p < 0.001$ ) between longer time to catheter removal and longer hospital stay. Two (3.7%) patients were readmitted to hospital after discharge for reasons unrelated to catheter removal. Four (7.4%) women were diagnosed with a post-operative UTI following discharge.

The mean ICIQ-UI SF score was 16.5 before surgery and 6.1 following surgery.

**Conclusions**

The results of our study suggest that same day catheter removal following laparoscopic colposuspension is not only feasible, but also safe and has a low rate of postoperative urinary retention and hospital readmission, without detrimental impact on surgical success. Our demonstration of change in practice in immediate catheter removal in theatre and same day discharge after laparoscopic colposuspension is generalisable to other healthcare settings. Our data collection for this project is ongoing and we look forward to presenting the full cohort.



### Extrapelvic endometriosis: a challenge for gynaecologists and other specialists

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#### Background

To define the clinical features and behaviour of extrapelvic endometriosis (EPE) in a multidisciplinary unit of a tertiary centre.

#### Methods

A retrospective observational descriptive analysis of the surgically confirmed cases of EPE from 2014 and 2023 performed at Vall d'Hebron University Hospital. Demographic data of the patients, previous treatments, clinical features, diagnostic techniques and type of surgery performed were reviewed, with special interest in providing radiological and surgical iconography of the most unusual and challenging cases.

#### Results

Out of 725 patients with endometriotic lesions, 44 cases (6.1%) of EPE were identified: the most frequent location was the abdominal wall (54.5%), appendix and/or small intestine (ileo-caecal affection) was 38.6% and 6.8% affected the chest. The mean age at the time of surgery was 37 years (range 28-46).

Up to 38.6% of EPE cases were isolated forms with no gynaecological involvement: 66.6% in abdominal wall and 5.9% ileo-caecal. No isolated forms of chest EPE were identified.

Amongst abdominal wall endometriosis cases, 70.8% were lesions appeared on previous caesarean scar and 29.2% in other locations, 42.9% of which did not have previous abdominal surgeries. The cardinal symptoms were a painful and bleeding nodule during menstruation. Mean size of lesions was 25 millimetres (range 7-50). A 41.7% required the placement of prosthetic meshes, and 33.3% had previous hormonal treatment.

Amongst ileo-caecal endometriosis cases, 41.2% had exclusive compromise of the small bowel or appendix, whereas 58.8% had concurrent affection of the large intestine. All except one of the patients with exclusive ileo-caecal endometriosis presented upper gastrointestinal symptoms ranging from epigastralgia to intestinal obstruction of catamenial pattern. In up to 29.4% of these cases EPE was not the first diagnostic suspicion but an incidental radiological or surgical finding. A 64.7% of them had previous hormonal treatment.

Finally, the 3 patients with thoracic endometriosis had concomitant gynaecological involvement and both were under previous hormonal treatment, although these patients had presented respiratory symptoms even so (pleuritic pain, dyspnea and pneumothorax of catamenial pattern).

The 88.6% of the total EPE cases were approached by minimally invasive surgery.

#### Conclusions

EPE constitutes a diagnostic challenge, since this condition can behave like the simulator of many others. Working in a tertiary multidisciplinary centre enhances the pre-surgical diagnostic suspicion of atypic forms of EPE. Nevertheless, we must keep a high degree of clinical suspicion of EPE in young women with occlusive digestive episodes or cyclic respiratory symptoms, since the ileo-caecal and thoracic forms of EPE were diagnosed as incidental surgical findings with more frequency in our series. Thus, early diagnose of EPE can contribute to improve the treatment, the prognosis and the quality of life of the affected women.

## A population-based study to assess the incidence of endometriosis and its association with demographic characteristics in England

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### Background

Endometriosis adversely affects the quality of life of women and constitutes a considerable burden on healthcare systems. An accurate estimation of incidence of endometriosis would facilitate patient-centric care, and informed decisions regarding the allocation and optimisation of public health resources. Data on the incidence of endometriosis, particularly variations based on geographical location and demographic characteristics, are currently lacking. This study aims to estimate the incidence of endometriosis cases in women in different regions of England over a 25-year period.

### Methods

Anonymised data from the Clinical Practice Research Datalink (CPRD), comprising individual patient-level information from General Practitioner (GP) practices across nine regions in England from 1996 to 2020, was obtained. The first report of a new surgical diagnosis of endometriosis of a patient was recorded using a combination of relevant surgical procedures and associated International Classification of Diseases (ICD) codes for endometriosis registered on the same day. Both individual and population-level data were collected on the year of diagnosis, age at diagnosis, geographical region and social class measured by indices of multiple deprivation (IMD) score. A generalised linear model was fitted on the number of new cases, assuming a negative binomial distribution of the count data with a logarithmic link function. The model included the year of diagnosis, age, IMD and region as predictor variables and the logarithm of population-level data as an offset variable. The fitted model was used to obtain predicted means and 95% confidence intervals.

### Results

A total of 100,861 women had surgically confirmed endometriosis over the 25-year period (1996 to 2020). There was strong evidence ( $p$ -value<0.01) of association of incidence of endometriosis with age and year of diagnosis, IMD and geographical region. The number of new cases (per 100,000) increased almost linearly from 1996 onwards (48) to 2019 (128) with a decline in 2020 (90) possibly due to the impact of COVID-19 pandemic on healthcare services. The diagnosis of endometriosis showed a strong association with socioeconomic status, with significantly higher numbers among more affluent populations. The incidence of endometriosis diagnosis was highest in the age group of 30-39 years and in the East Midlands region.

### Conclusions

This is the largest population-based study covering 25 years of primary care patient-level data to evaluate the incidence of endometriosis and its trends by geographic regions and demographic characteristics. The yearly incidence of endometriosis in England increased by 2.5 times during the 25-year period. The study also established the most vulnerable groups of patients in terms of their age group and locations. The data will help policymakers address healthcare inequities and optimise resources to meet the needs of patients.

**The Hidden Burden: Prevalence of Appendix Endometriosis in Women Undergoing Non-Gynecological and Gynecological Surgeries - A Study of 2082 Cases**

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**Background**

Extra-genital endometriosis is a type of endometriosis that affects non-gynaecological organs, and the gastrointestinal system is the most affected organ system. Whereas the rectosigmoid colon is the most involved organ in the gastrointestinal system, intestinal, caecal, and appendiceal endometriosis (AE) should not be ignored.

The literature has confounding data on the prevalence of AEs in appendectomy specimens, varying between 0.2% and 13%. A meta-analysis calculated the prevalence at 2.5% in patients with endometriosis and 1.2% in patients operated on for benign gynaecologic and non-gynaecologic conditions.

In this study, we aimed to assess and compare AE prevalences in patients who underwent appendectomy for gynaecological and non-gynaecological reasons.

**Methods**

The data were retrospectively collected from the electronic medical records following approval by the IRB of Acibadem University.

The study included the appendectomy specimens' of 2082 women, aged 18-55, who had undergone an appendectomy for any reason (gynaecological or non-gynaecological) in all 17 hospitals of the Acibadem Health Group between 01/01/2016 and 10/03/2022.

The pathology results of all appendectomy cases were retrieved from the relevant medical records for analysis. Of all these patients, 43 women with AE diagnoses were included in the study, and their electronic medical records were retrospectively reviewed. Another pathologist also re-evaluated their pathological specimens.

On histomorphological examination, at least two of three diagnostic criteria (endometrial type gland, endometrial type stroma, and haemosiderin-laden macrophages) were sought to diagnose AE.

**Results**

A total of 2082 patients who underwent appendectomy between 2016 and 2022 were included. 305(15%) of all patients were operated for a gynaecological reason.

43 of all patients were diagnosed with AE. 62.8% (27/43) of these patients were operated for a gynaecological reason and 37.2% for a non-gynaecological reason.

All non-gynaecological appendectomies were performed for acute appendicitis. The surgical indications of the gynaecological patients were 18 for endometriosis, 7 for oncological diseases, and 2 for fibroids.

The overall rate of endometriosis in all appendectomy specimens was 2.06%.

The endometriosis rates in the specimens obtained in gynaecological and non-gynaecological surgeries were 8.85% and 0.9%, respectively.

When we evaluated the previous medical records of these patients with AE, 62.8% (27/43) had the diagnosis of endometriosis, and 8 of them also had prior surgery for endometriosis.

**Conclusions**

This study includes all women who underwent appendectomy for gynaecological or non-gynaecological reasons in all 17 hospitals of one of the biggest health groups in our country. To the best of our knowledge, this is the largest series including women who underwent appendectomy for both gynaecological and non-gynaecological reasons.

According to our study, the prevalence of AEs was 0.9% in appendectomies performed for non-gynaecological reasons. However, the prevalence of AEs increased to 8.85% in appendectomies performed for gynaecological reasons. These higher prevalences of AE in gynaecological patients confirm the need to evaluate the appendix intraoperatively in all gynaecological surgeries.

**Laparoscopic Excision of Adenomyoma: Undermining Technique: Novel Approach**

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**Background**

Adenomyomas have been seen with increasing frequency. Most of the time adenomyomas are incidental diagnosis during the course of laparoscopic myomectomy. The laparoscopic surgery for adenomyomas is technically challenging, time consuming. Resection of adenomyoma is difficult due to lack of demarkation between the normal myometrium and adenomyomatous tissue, fragile nature of the tissue and extension of adenomyomas within the endometrial cavity. Complete resection of adenomyomas is not possible. Laparoscopic suturing of the defect is also challenging. Therefore, recurrence of the disease is well known. W

**Methods**

We evaluated the the "Novel undermining Technique" of Laparoscopic Resection of Focal adenomyomas in 104 patients. After injecting the vasopressin into the adenomyoma we utilised a circular incision on the focal adenomyoma with a cold scissors. In the beginning a large wedge of the tissue resected. This is followed by peripheral resection of adenomyomatous tissue underneath the margin of the uterine defect in order to make the edges pliable and more amenable for effective laparoscopic suturing in two layers.

**Results**

With this technique the operative time and blood loss were minimised significantly even for larger adenomyomas. Significant reduction in symptomatology in 3 months to 4 years following surgery was noted in 80-86% of patients. 10% patient had recurrence of the adenomyomas in between 2-6 years.

**Conclusions**

With the Novel Undermining Technique Focal adenomyomas of less than 7 cm can be efficiently and safely removed laparoscopically with short operative time, minimal blood loss and with better approximation of the uterine defect. Larger adenomyomas more than 7 cm and diffuse adenomyosis are better managed with laparotomy.

**Laparoscopic Hysterectomy Without Uterine Manipulator, A Novel Approach And Step By Step Description Of Our Technique.**

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**Background**

The Background of this retrospective study was to evaluate the feasibility and safety of Total Laparoscopic Hysterectomy (TLH) without manipulator or any vaginal tube. The aim of this novel technique was to avoid injuries of the cervix and vaginal wall but also to avoid cancer cells spread in case of cervical or endometrial cancer or precancer cases. We describe our technique step by step and present our data on intra-operative and post-operative morbidity.

**Methods**

Between January 2011 and February 2024, we performed 2642 total Laparoscopic Hysterectomies, without using any kind of uterine manipulator in women with benign and precancer (cervical intraepithelial neoplasia and endometrial hyperplasia) indications for hysterectomy. We analysed retrospectively the perioperative and postoperative outcomes. During the operation we used bipolar forceps, scissor and Laparoscopic cutting devices. The vagina was Laparoscopically sutured with absorbable individual sutures. All operations were performed by experience surgical team using the same technique and method.

**Results**

The average age was 52.1 years and BMI 27.1 kg/m<sup>2</sup>, while the mean operative time was 68 min (43-168 min), the estimated blood loss was 85 mL (20-260 ml) and the mean uterine weight was 282 g (40-1880 g). There was no case of conversion to laparotomy. A blood transfusion was required for 121 patients (2.1 %), while there was two cases of ureteral injury and three cases where the bladder was opened and fixed laparoscopically. The average hospital stay was 1.4 days. In the long term, we had 16 cases (0.6 %) of vaginal vault dehiscence and one case of vaginal vault hematoma.

**Conclusions**

TLH without the use of uterine manipulator is a feasible and safe procedure. While it is perhaps a more demanding procedure for young doctors, when performed by well-trained and experienced laparoscopic surgeons, the procedure entails a short operative time and a low complications rate. Our results prove that the use of uterine manipulator is not mandatory to perform total laparoscopic hysterectomy.

**Pregnancy and Neonatal Outcomes in Women Treated For Bowel Endometriosis: a Six-Year Single-Centre Retrospective Matched Cohort Study.**

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**Background**

To evaluate pregnancy, delivery, and newborn adverse outcomes in women after laparoscopic-assisted surgery for bowel endometriosis.

**Methods**

A Single-centre retrospective cohort study was conducted in a Tertiary-care University Hospital (Department of Human Reproduction, Division of Gynaecology and Obstetrics, University Medical Centre Ljubljana, Slovenia). From January 2015 to December 2021, pregnant women who were diagnosed and treated for bowel endometriosis were matched using a 1:3 ratio with pregnant women with no history of endometriosis. Patients were matched using Cox proportional hazards model to determine parity, age, BMI and gestational age-adjusted relative risk (aRR) with 95% confidence interval (CI). Co-primary outcomes were incidence of labour abnormalities and caesarean section (CS) rate. Co-secondary outcomes were incidence of complications related to pregnancy, delivery and newborn.

**Results**

71 pregnancies among women with bowel endometriosis were matched to 213 controls. Patients requiring IVF/ET for getting pregnant were in the bowel endometriosis group relative to controls (43.7% vs 11.7%;  $p < 0.001$ ). Increased risk of labour abnormalities was present for bowel endometriosis relative to controls (21.1% vs 17.4%;  $p = 0.048$ ; aRR 1.36 (95% CI 1.00-1.86)). Risk of non-cephalic foetal situations (14.1 % vs 6.1%;  $p = 0.016$ ; aRR 3.08 (95% CI 2.03-4.68), CS rate (43.7% vs 24.9%;  $p = 0.003$ ; aRR 1.75 (95% CI 1.23-2.49), emergent CS rate (19.7% vs 8.5%;  $p = 0.009$ ; aRR 2.21 (95% CI 1.55-3.16)) were significantly higher in women treated for colorectal endometriosis compared to controls.

Moreover, the incidence and risk of second trimester haemorrhage (5.6% vs 0.9%;  $p = 0.017$ ; aRR 6.0 (95% CI 1.12-32.1)), postpartum haemorrhage (15.5% vs 3.3%;  $p < 0.001$ , aRR 4.71 (95% CI 1.90-11.70), and the need for transfusion during hospitalization (5.6% vs 0.5%;  $p = 0.004$ ; aRR 12.1 (95% CI 2.36-15.50) was significantly increased in women with bowel endometriosis.

Concerning neonatal outcomes, an increased risk for neonatal intensive care unit admission was seen in postsurgical endometriotic women relative to healthy controls (26.0% vs 6.9%;  $p < 0.001$ ; aRR 3.75 (2.04-3.86)).

**Conclusions**

Despite the limitations derived from the retrospective design, we reported that women subjected to surgery for bowel endometriosis showed increased risk of worsened pregnancy and neonatal outcomes, including labour abnormalities, non-cephalic foetal situations, increased risk of planned or emergent CS, second trimester and postpartum haemorrhage, need for transfusion after delivery and increased NICU access for the newborn. Additional studies with a prospective design are needed to further confirm the available evidence showing that endometriosis, even if in non-gynaecological localizations, raises the risks associated with pregnancy and labour.

**ABST-0589 - P319**  
**ePoster and Video Presentations**

**Longer operative times but equally safe - a propensity score matched analysis of laparoscopic procedures in early-stage endometriosis by surgeon experience**

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**Background**

The treatment for early-stage endometriosis is typically minimally invasive laparoscopic surgery. These are performed by either experienced gynaecologic surgeons or by residents and fellows as training surgery to gain experience. This study was designed to evaluate the effect of surgical expertise on the efficacy and safety of laparoscopic surgery used to treat early-stage endometriosis.

**Methods**

A propensity score-matched analysis was conducted on data from patients diagnosed with stage I and stage II (revised American Society for Reproductive Medicine stage (rASRM)) endometriosis who underwent minimally invasive surgery at the University Hospital Mainz in Germany between 2018 and 2022. The analysis was based on the experience of surgeons, with a distinction made between residents/fellows and attendings. Linear regression models were employed on the propensity score matched data set to calculate the treatment effect on the treated for continuous outcomes, whilst logistic regression models were used for binary safety outcomes.

**Results**

A total of 580 patients fulfilled the inclusion criteria. Eleven different attending surgeons performed 339 procedures, and 22 residents/fellows performed 241 surgical interventions. Following a full propensity score matching the matched dataset demonstrated a mean difference of 0.02. A comparison of surgical procedures performed by experienced surgeons with those conducted by residents/fellows revealed that the latter group experienced longer operating times (5.27 minutes in the whole data set (SE 1.36),  $p < 0.001$ ). This was particularly evident in rASRM stage II endometriosis, where the mean operating time difference was 9.54 minutes (SE 3.57,  $p = 0.007$ ). This equals a 10.5% increase in operative time in the whole cohort and 15.4% in the rASRM II population. The necessity for revision surgery was reduced in the cohort of residents and fellows, though this did not attain a statistically significant level (0.56 (95% CI: 0.3–0.1.02),  $p = 0.06$ ). There were no significant discrepancies observed concerning intra- and postoperative complications or the duration of hospital stay.

**Conclusions**

The experience of the surgeon does not influence the safety of patients who have undergone surgery for early-stage endometriosis. However, when residents/fellows are operating, the availability of operating rooms and surgical staff is required for longer periods. Simulation training may assist in flattening the learning curves, thereby reducing the operating time and the financial impact on hospitals, thus allowing for more efficient and cost-effective surgical procedures.



**Bowel symptoms in patients with endometriosis may have a different underlying pathophysiology compared to patients with functional gastrointestinal disorders: a prospective cohort study.**

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**Background**

Bowel-related symptoms often accompany pelvic pain in patients with endometriosis and adenomyosis, however the pathophysiology of these symptoms is unclear. The aim of this study is to detect abnormalities of bowel physiology in patients with endometriosis and determine how these differ from patients with functional gastrointestinal (GI) disorders.

**Methods**

Patients were recruited at the point of referral to a tertiary endometriosis centre. Inclusion criteria: aged 18-50, the presence of bowel-related symptoms, and no known bowel disease. Participants completed symptom questionnaires and underwent a bowel transit (Sitz marker) test, an anorectal physiology test (ARP) with high resolution manometry, electro sensation and simulated defaecation, and an abdomino-pelvic MRI scan. Patients with and without pathology on MRI were compared using Fischer's and Mann-Whitney-U tests.

**Results**

A total of 101 patients were recruited, of whom 95 underwent a bowel transit study, 74 underwent ARP, and 82 underwent MRI. Mean age was 32.5 years (SD:7.2) and BMI was 26.8 (SD:7.9). Just over half the patients had evidence of endometriosis (45, 55%), of which 20 (24%) had deep rectovaginal disease, and 21 (26%) patients had adenomyosis on MRI.

Patients with gynaecological disease (endometriosis and/or adenomyosis) had more chronic dyschaezia (3.80/10 vs 2.27/10,  $p=0.026$ ), less fluctuation in nausea with the menstrual cycle (1.0/10 vs 2.9/10,  $p=0.016$ ) and were less likely to report passing mucus with stools (59% vs 85%,  $p=0.015$ ) than patients with no pathology on MRI.

Patients with gynaecological disease were more likely to have slow bowel transit than those without (15.6% vs 3.3%,  $p=0.043$ ). Amongst patients with gynaecological disease, constipation scores correlated with bowel transit time ( $\rho=0.316$ ,  $p=0.031$ ), but not for patients without.

Similar rates of rectal hypersensitivity were found in patients with gynaecological disease to those without (22% vs 10%,  $p=0.439$ ). However, patients with gynaecological disease had lower rates of defaecatory dyssynergia (22.5% vs 54.4%,  $p=0.023$ ). Patients with deep rectovaginal endometriosis also had lower thresholds for electrical sensation of the rectum compared to those with no disease (12.9millivolts vs 20.2mV,  $p=0.017$ ).

**Conclusions**

Patients with endometriosis or adenomyosis were more likely to have slow transit constipation and less likely to have functional defaecatory disorder than those with no gynaecological pathology on MRI. Additionally, patients with deep rectovaginal endometriosis exhibited greater rectal electro sensitivity. This suggests that different pathophysiological mechanisms may underly bowel-related symptoms in patients with gynaecological disease than those with functional GI disorders.

### Aetiology of pelvic neuropathies in women: a scoping review

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#### Background

Pelvic pain, often undiagnosed, significantly impacts many women's lives. Although some of these cases could be attributed to pelvic neuropathy, the underlying causes remain largely unexplored. A thorough understanding of the various aetiologies behind pelvic neuropathies is crucial, as symptom-based treatment fails to address the root of the pain, leading to ongoing discomfort. Neuropathic pain, defined by the International Association for the Study of Pain (IASP) as pain arising from a lesion or disease of the somatosensory nervous system, encompasses both visceral and somatic pain. Studies indicate that these pain types often overlap, complicating diagnosis and treatment. Chronic manifestations of such pain can severely diminish quality of life, affecting mobility, bodily functions, and mental health. Despite its prevalence, estimated to affect 7% to 24% of the population, pelvic neuropathy is underdiagnosed due to diagnostic challenges and general unawareness. This review aims to collate all documented aetiologies of pelvic neuropathies to enhance diagnostic accuracy and treatment, highlighting the importance of distinguishing the specific nerve involvements and understanding their causes.

#### Methods

We performed a scoping review, searching PubMed, Embase.com and Web of Science (Core Collection) and citations and reference lists published up to November 13, 2023. Two reviewers screened titles and abstracts of 4094 titles, of which 344 results were assessed for eligibility. For inclusion, the study needed to describe an aetiology of a located pelvic neuropathy that can occur in women. As cohort studies in this field are scarce, case series and reports were included in the review. The authors excluded studies describing idiopathic neuropathy, reviews, and opinion articles.

#### Results

In total, 306 studies were included (268 case reports and series, 38 cohort studies), describing 2413 patients. The studies were mainly performed in the fields of Obstetrics and Gynaecology (24%), Orthopaedic surgery (15%), Neurology (10%) and Rehabilitation medicine (10%). Most studies were performed in the United States of America (32%). Aetiologies of the included studies were divided into five categories and their subcategories, namely: iatrogenic (n=1094 patients, 45%), nerve invasion - mainly endometriosis (n=614 patients, 25%), pregnancy and birth (n=93 patients, 4%), trauma (n=202 patients, 8%), and compression (n=409 patients, 17%). Pelvic neuropathies were mainly described in the sciatic, femoral, obturator, lumbosacral roots, pudendal, lateral femoral cutaneous, and Ilioinguinal nerve.

#### Conclusions

The vast majority of all described pelvic neuropathies were seen after surgery in the lower abdomen or pelvis. The second largest group of patients exhibited neuropathy caused by deep endometriosis of the sacral plexus and/or sciatic nerve. Our goal is to raise the awareness for the clinician of the broad range of aetiologies causing pelvic neuropathy to support structured diagnostics and treatment for this condition.

**ABST-0674 - P335**  
**ePoster and Video Presentations**

**“setting up a new endometriosis centre – pathways, links and organisation”.**

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**Background**

Endometriosis affects about 10% of reproductive-age women and girls globally, which amounts to approximately 190 million individuals. Endometriosis causes severe pain, infertility, and impacts the overall well-being of patients. To address the complexities, the British Society for Gynaecological Endoscopy (BSGE) has set accreditation criteria for endometriosis centres. The BSGE prioritise dedicated consultant-led services, multidisciplinary teams (mdt), surgical expertise, research involvement, and patient support, ensuring that patients receive specialised care, comprehensive treatment options, and holistic support services for better outcomes.

Birmingham city hospital is a district general hospital, our maternity delivers 6000 babies a year, our gynaecology outpatients see 17.000 patients a year; we have 20 elective and 13 emergency gynaecology beds.

**Methods**

We developed an endometriosis centre, fulfilling the BSGE accreditation criteria utilising the available resources without extra founding.

We describe our approach and how to utilise the available resources to provide a high standard care in an ever-shrinking public health sector.

Leveraging existing services such as pain management, physiotherapy, clinical psychology, colorectal and urology and specialised radiology has been key to enhancing the care pathway for endometriosis patients. By establishing clear pathways with various service providers and using ultrasound for surgical treatment planning, and stratifying surgeries accordingly, we have been able to streamline its approach.

**Results**

The results of this initiative have been promising; with our service successfully fulfilling the BSGE accreditation process over three years without requiring additional funding. currently, the clinic serves over 250 patients and performs approximately 75 endometriosis-related surgeries each year.

**Conclusions**

Our experience highlights that high-quality and holistic care can be delivered using existing resources by establishing effective pathways and working relationships. This model has showcased positive elements such as specialist accountability, retained ownership of patient care, and streamlined services that avoid bureaucratic hurdles and delays in patient pathways.

### Unveiling the Hidden Threat: Complications of Silent Renal Endometriosis

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#### Background

Deep infiltrating endometriosis involving the urinary tract (UTE) is a rare but important manifestation of endometriosis. 10% of UTE will involve the ureters, estimating to affect up to 350,000 women worldwide. With progression of the disease the implications are devastating and lead to ureterohydronephrosis, loss of renal function and ultimately silent loss of kidney.

Unfortunately, diagnosis is often delayed and there is a limited pool of surgeons able to perform this complex excisional surgery. These factors alongside the rarity of renal complications have resulted in a limited availability of information about this patient group.

#### Methods

Electronic databases were searched from their conception up to October 2023, identifying no prospective studies or RCTs, only several case reports/series and one retrospective cohort study. Information regarding demographics, clinical symptoms, biochemical/radiological and intraoperative findings were collected and analysed. Alongside this, if stated, surgical outcomes were noted for this population.

#### Results

The presence of dysmenorrhea was ubiquitous across all reports, although menorrhagia was more common in case reports, this was not analysed within the cohort group. Subfertility was a significant factor in the cohort study but appeared less frequently in the case series group.

Left sided ureteric endometriosis appeared at a much higher rate in the case series group with associated DMSA confirmed renal function loss.

On imaging and intraoperatively there was a correlation between the presence of intestinal deep endometriosis (DE) and renal loss in both groups.

#### Conclusions

Through identification of early clinical characteristics and specific demographics that are ubiquitously present in these patients, this presentation lays the groundwork for future research and proposes what prospective studies are required for the detection of urinary tract endometriosis at an earlier stage and thereby the prevention of silent kidney or renal function loss.

**Surgery for Colorectal Endometriosis: no more need for preventive stoma. A retrospective series of 97 consecutive patients managed in an expert centre.**

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**Background**

Estimated incidence of colorectal endometriosis varies from 5.3% to 12 %. The benefits in term of improvement of quality of life and pain of the surgical treatment have been largely discussed over the last two decades. Various surgical techniques have been described and the benefit of a preventive stoma remain unclear. The aim of our study is to evaluate the risk of complications in patients underwent surgery for colorectal endometriosis without a policy of preventive stoma.

**Methods**

Retrospective cohort study of 97 consecutive patients managed for colorectal endometriosis in an expert centre from January 2022 to January 2024. To remove the rectal nodules, we performed three different techniques depending on nodule's characteristics and localization: segmental resection, disc excision or rectal shaving.

**Results**

43 patients were managed by segmental resection, 20 patients by single disc excision, 5 patients by double disc excision and 29 patients by rectal shaving. In the whole population the nodule was localized mostly in the high rectum. The diameter of the largest nodule is greater in the group of patients treated with segmental resection than in the group having conservative surgery. A total of 48 patients had vaginal suture concomitant with the surgical procedure on the digestive tract without preventive sotma. We found a total of complications of 14%, less than those described in literature. Particularly we reported a number of severe complications (Clavien Dindo >3) of 8,24% and a number of rectovaginal fistula, one of the most feared complications, of 3,09%. We analysed the relationship between the postoperative complications and the presence of concomitant vaginal and rectal suture, so patients in which we have performed concomitant hysterectomy or colpectomy, and we observed no differences in the risk of complications. Finally, we observed that patients with a colorectal endometriosis nodule larger than 3 cm had more complications than patients managed for smaller nodules (57,1% vs 42,9% of total complications), with a p value close to the statistical significance.

**Table: Post-operative complications.**

	Conservative Surgery	Segmental resection	
Total complications	8 (14,8%)	6 (13,9%)	p=0,684
Clavien Dindo I	3 (5,6%)	3 (6,9%)	p=0,479
Clavien Dindo II	0 (0%)	0(0%)	
Clavien Dindo IIIA	1 (1,9%)	2 (4,6%)	p=0,429
Clavien Dindo IIIB	4 (7,4%)	1 (2,3%)	p=0,261

**Conclusions**

Surgery for colorectal endometriosis performed in high volume centres by expert surgeons leads to a reduction in the risk of postoperative complications. In our study, we didn't use a routine preventive stoma and we didn't find an increase in postoperative complications compared to the literature, so we didn't recommend the routine use of preventive stoma.

**Laparoscopic Hysterectomy without Uterine Manipulator. Presenting our technique and our data of more than 2.000 cases**

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**Background**

The objective of this retrospective study was to evaluate the feasibility and safety of Total Laparoscopic Hysterectomy (TLH) without manipulator or any vaginal tube. We describe our technique step by step and present our data on intra-operative and post-operative morbidity.

**Methods**

Between January 2011 and January 2024, we performed 2.042 Total Laparoscopic Hysterectomies, without using any kind of uterine manipulator in women with benign indications for hysterectomy. We analysed retrospectively perioperative and postoperative outcomes. During the operation we used bipolar forceps and vessel sealing devices and the vagina was Laparoscopically sutured with absorbable individual sutures. All operations were performed by the same surgical team.

**Results**

The average age was 53.2 years and BMI 27.9 kg/m<sup>2</sup>, while the mean operative time was 76 min (41-182 min), the estimated blood loss was 54 mL (20-270 ml) and the mean uterine weight was 269 g (40-1690 g). There was no case of conversion to laparotomy. A blood transfusion was required for 21 patients (1.02 %), while there was one case of ureteral injury and four cases where the bladder was opened and fixed laparoscopically. The average hospital stay was 1.2 days, with only 48 patients staying for two or more days. In the long term follow up, we had 9 cases (0.4 %) of vaginal vault dehiscence and two cases of vaginal vault hematoma.

**Conclusions**

A TLH without the use of a uterine manipulator is a feasible and safe procedure. While it is perhaps a more demanding procedure for young doctors, when performed by well-trained and experienced laparoscopic surgeons, the procedure entails a short operative time and a low complications rate. As such, it should be the first step in the training of young doctors for performing laparoscopic radical hysterectomies

### Endorace: race and ethnicity reporting in endometriosis literature

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#### Background

Studies indicate that endometriosis affects individuals across diverse racial and ethnic backgrounds, albeit with variations in prevalence rates and clinical manifestations. Despite these disparities, the literature on endometriosis has historically lacked comprehensive reporting and analysis of race and ethnicity data. In this review, we aimed to assess quantity and quality of race/ethnicity reporting in endometriosis literature published in 2022.

#### Methods

In this systematic review, electronic searches of The PubMed, MEDLINE, Web of Sciences, Scopus, and Cochrane Library databases were performed for all articles published in 2022. Peer-reviewed human-based articles focusing on endometriosis were included. Non-research-focused articles, review articles, meta-analyses, case reports, and non-human studies were excluded. We analysed the proportion of studies reporting race/ethnicity and assessed the quality of reporting through the adherence to the International Committee of Medical Journal Editors (ICMJE) recommendations. We evaluated the influence of study characteristics on race/ethnicity reporting and compared articles published in Journals which adhere to the ICMJE recommendations against those that did not explicitly state so.

#### Results

2054 articles were reviewed. 648 (31.6%) were included, of which 65 (10.0%) reported race/ethnicity of patients, with low quality of the reporting. Race/ethnicity reporting rate was similar when comparing articles from ICMJE and non-ICMJE journals (24, 11% vs 41, 9.5%;  $P=0.52$ ), national and international studies (60, 92.3% vs 556, 95.4% for national studies; 5, 7.7% vs 27, 4.6% for international studies;  $p=0.28$ ) and male vs female authors (33, 50.8% vs 329, 56.4% for male authors; 32, 49.2% vs 254, 43.6% for female authors;  $p=0.38$ ). A significant difference in race/ethnicity reporting rate was found comparing prospective and retrospective studies (37, 56.9% vs 112, 19.2% for prospective studies; 18, 27.7% vs 287, 94.1% for retrospective studies;  $p<0.001$ ), monocentric and multicentric studies (44, 67.7% vs 506, 86.8% for monocentric studies; 21, 32.3% vs 77, 13.2% for multicentric studies;  $p<0.001$ ). Studies performed in the World Health Organization (WHO) Region of Americas were significantly more consistent in reporting race compared to other Regions ( $p<0.001$ ).

#### Conclusions

A low frequency and quality of race/ethnicity reporting characterized human-based articles focusing on endometriosis, even in journals claiming to follow ICMJE recommendations.

## ABST-0568 - P316

### ePoster and Video Presentations

#### #Enzian classification by transvaginal ultrasound and its correlation with infertility

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#### Background

#Enzian classification represents a system to describe endometriotic lesions during surgery. Its use is well established in correlating ultrasound and surgical findings. To assess the correlation between infertility and pelvic endometriosis described by using #Enzian classification.

#### Methods

57 infertile women with endometriotic TVS signs, with no previous surgery and not taking any hormonal therapy, were staged according to the #Enzian (compartments A, B, C, O, T, FA, FB, FI, FU, FO). A group of 125 patients with no previous negative reproductive outcomes was used as control group. Statistical analysis compared endometriosis location and symptoms (dysmenorrhea, dyspareunia, heavy menstrual bleeding and dyschezia) between the two groups.

#### Results

We observed a significant statistically association between infertility with both compartment A (42.1% vs 27.2%,  $p=0.04$ ) and C (42.1% vs 26.4%,  $p=0.03$ ) compared to the control group. Infertile patients also exhibited a higher frequency of FA compared to the control group (71.1% vs 54.4%,  $p=0.04$ ). No statistically significant differences were found between the two groups when analysing compartments O, T, B and symptoms. Among the infertile patients, 17 out of 57 (29.8%) underwent artificial reproductive technology (ART). Of these, 6 out of 17 (35.3%) achieved pregnancy, while 11 out of 17 (64.7%) did not. The analysis of these two groups showed a higher prevalence of endometriosis in all #Enzian compartments among patients who did not achieve pregnancy, although this difference was not statistically significant.

#### Conclusions

#ENZIAN classification could help in the evaluation of pelvic endometriosis and reproductive outcomes and should be used also in infertile centre. An accurate evaluation of the compartments could guide the clinician to establish the best management for infertile patients.

## ABST-0395 - P277

### ePoster and Video Presentations

#### Clinical and magnetic resonance imaging evaluation of deep endometriosis progression.

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#### Background

The natural history of deep endometriosis (DE) is poorly understood, and magnetic resonance imaging (MRI) is a reference imaging modality. Evaluation with sequential MRIs and clinical assessment may aid in the understanding and management of DE.

#### Methods

This retrospective multicentre study includes patients with unoperated DE lesions who underwent at least two pelvic MRIs with a maximum interval of 6 years between March 2013 and March 2019. The MRIs were reviewed by an expert radiologist to assess the evolution of DE lesions over time in terms of size (minimum cut-off  $\geq 5$ mm to consider significant change) and appearance (microcystic or haemorrhagic component). At 1 and 3 years after the



second MRI, clinical and radiologic management was monitored, in particular surgery, recurrence rate, pain progression, and fertility.

### **Results**

59 patients were included. Concerning radiologic changes between two MRIs, linear regression shows that posterior DE lesions had a significant trend of increasing size over time ( $p=0.03$ ). Data on anterior and lateral compartments are insufficient to draw conclusions. 68% were treated with interval hormone therapy, only the duration of amenorrhea is inversely correlated with progression ( $p<0.05$ ). There was no difference in the appearance of the MRI signal, i.e. the microcystic or haemorrhagic component of the DE lesions. There was good agreement between the overall radiological assessment and the impression of the clinical evolution of the most painful symptom ( $p<0.05$ ). Using a receiver operating characteristic curve, the best interval between two MRIs to detect significant change in posterior DE was 13 months.

At 1 and 3 years after the second MRI, 59% and 27.6% had an improvement in painful symptoms, and 13.6% and 48.3% had an increase in these symptoms, respectively. After the second MRI, 72% of patients underwent surgery for deep endometriosis on average 3.6 months. 23 out of 38 patients underwent a follow-up MRI at an average of 19.3 months after DE surgery. At 3 years, we identified 7 live births among 16 pregnancy desires. This group of patients had a low rate of amenorrhea (22%) and the highest rate of pain recurrence (80%).

### **Conclusions**

The MRI characteristics of DE suggest a general trend of progression in the size of deep posterior endometriosis lesions over time. The best performance in diagnosing this progression is observed when re-evaluation is performed at 13 months. Amenorrhea seems to be associated with less progression. The 1- and 3-year follow-ups suggest that an elevated initial pain level, the absence of amenorrhea, and the radiologic change in size (increase or decrease) of the lesion may help predict recurrence or persistence of pain.

### Residents' learning curve for the ultrasonographic detection of uterine adenomyosis

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#### Background

Transvaginal ultrasound can be considered the first-line imaging technique to diagnose adenomyosis, especially when performed by experienced sonographers. The objective of this study is to examine the learning curve of gynaecological residents in diagnosing uterine adenomyosis using TVUS.

#### Methods

This multicentric prospective observational study was conducted between April 2022 and February 2023. Three gynaecological residents were asked to real-time diagnose adenomyosis during a transvaginal ultrasound examination performed in an outpatient setting in two tertiary referral centres. Each resident evaluated 50 patients. Before the start of the study, a dedicated training on the ultrasonographic diagnosis of adenomyosis was given to the residents. After each examination, feedback was systematically left by an expert sonographer. The success of the procedure involved the correct identification of adenomyosis, using the expert sonographer's examination as the reference technique. Ultrasound examination was performed according to the IDEA protocol and MUSA Delphi procedure. The learning curve was generated using the Learning Curve Cumulative Summation Test method, with a predefined  $h$  value of 1.75. Exclusion criteria were age less than 18 years, virgo, postmenopausal status, ongoing or recent pregnancy (less than 6 months), gynaecological malignancy, uterine malformations, previous surgery for adenomyosis or fibroids.

Patients included in our study signed informed consent to use their anonymized data for scientific purposes.

#### Results

One-hundred fifty patients were consecutively enrolled. Mean age and BMI of the population study were  $33.3 \pm 8.1$  years and  $22.4 \pm 3.6$ , respectively. According to the reference technique, adenomyosis was diagnosed in 78 patients (52%). Near-half of the patients was taking hormonal therapy (62/150, 41%). Endometriosis was detected in 23 patients (15%), whereas fibroids were diagnosed in 39 women (26%). Dysmenorrhea was the most common pelvic pain symptom (59/150, 39%). Overall, the diagnostic accuracy of the residents was 80.0%, with pooled sensitivity and specificity of 77.8% and 82.1%, respectively. Resident number 1 achieved competency in diagnosing adenomyosis after 9 examinations. Resident number 2 crossed the  $h$  line several times, before steadily remaining above the competency line after 29 examinations. Resident number 3 achieved competency after 6 examinations, but later had an alternating performance, while finally obtaining a stable diagnostic proficiency after 21 examinations.

#### Conclusions

Our study showed a wide range of learning curve shape among equally trained residents for the ultrasonographic diagnosis of adenomyosis. Nine to 29 examinations were needed to achieve competency. A personalized approach should be employed for the training of gynaecological residents.

However, the learning curve may be shorter when compared to other ultrasound target considered pertinent to expert sonographers, such as bowel endometriosis (50 exams), ureteral course (50 exams), and 3D-rectosonographic adenomyosis (20 to 30 examinations).

**FUP ENZIAN: #enzian classification applied to transvaginal ultrasound follow-up of pelvic endometriosis in women undergoing medical treatments**

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**Background**

#enzian classification represents a system to describe endometriotic localizations during ultrasound examination. the objective of the study is to evaluate the changes of pelvic endometriosis by transvaginal ultrasound over a period of at least 24 months using #enzian classification in women who were managed only by medical treatment without previous surgery.

**Methods**

in this single centre retrospective study, we included women with pelvic endometriosis diagnosed by transvaginal ultrasound and classified according to the #enzian classification (compartments A, B, C, O, T, FA, FB, FI, FU, FO). all included patients underwent clinical and ultrasound examinations at baseline and every 6-8 months for at least 24 months. during follow-up period, all patients with transvaginal ultrasound signs of endometriosis underwent continuous hormone therapy that induced amenorrhea and during every follow-up visit all symptoms and all possible locations of endometriosis were assessed and recorded using #enzian classification.

**Results**

eighty-six patients with ultrasound signs of endometriosis were included in the study; the mean follow-up period was of 31.6±2.1 months. during follow-up, all patients, due to medical therapy, showed a significant reduction in symptoms. dysmenorrhea and heavy menstrual bleeding (HMB) were no longer detected and chronic pelvic pain was significantly reduced as early as the first 12-month follow-up as well as dyspareunia. patients who showed #Enzian O compartment involvement were 67.4% (58/86) at baseline and bilateral O was seen in 27.9% of patients (24/86) for a total of 82 endometriomas. among them at baseline we had 40/86 (46.5%) O1, 42/86 (48.8%) O2, whereas no O3 lesions were detected. At 24 months follow-up we observed a statistically significant decrease in O2 localization compared to baseline (8/82, 9.8% vs 42/86, 48.8%, p= 0.003) and in a consequent relative increase in endometriomas classifiable as O1 (40/86, 46.5% vs 56/82, 68.3%, p=0.0005), which confirmed a decrease in size of the endometriomas. moreover, we did not see at transvaginal ultrasound follow-up, endometriomas in 21.9% (18/82) of patients. lesions in compartment B were detected in 66/86 (76.7%) patients at baseline and they were bilateral in 14% (12/86) of cases for a total of 78 compartment B lesions; among them 60 (76.9%) were B1, 18 (23.1%) were B2, whereas no B3 lesion was seen. this compartment did not show any significant change in percentage from baseline to 24 months follow-up. Similar results were observed in A, C, T and FA compartment. therefore, adenomyosis and deep infiltrating endometriosis did not show neither reduction nor progression during hormonal treatment.

**Conclusions**

transvaginal ultrasound evaluation of endometriosis using #enzian classification could allow to monitor lesions progression in patients undergoing medical treatments; #enzian compartments do not show great changes during follow-up, except for O compartment.

**ABST-0447 - P292**

**ePoster and Video Presentations**

**Experience of RYEQO treatment for Endometriosis, Adenomyosis and Uterine Fibroids - An observational study at Cwm Taf Morgannwg University Health Board, Wales**

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**Background**

Review of Ryeqo treatment for Endometriosis, Adenomyosis and Uterine Fibroid

Ryeqo is an oral form of GnRH antagonist with added HRT. It contains 40mg Relugolix, 1mg Estradiol and 0.5mg Norethisterone acetate.

It is indicated for treatment of moderate to severe symptoms of Uterine Fibroids and symptomatic treatment of endometriosis in women with history of previous medical or surgical treatment for endometriosis. In the UK it has been licensed only for treatment of fibroids. The use of Ryeqo for endometriosis in UK is off license although it has recently received license in rest of Europe for the it.

Patients commenced on Ryeqo at Cwm Taf Morgannwg University Health board were included in the study. Telephone or face to face review took place to assess indications, benefits and side effects after every 3 months - 6months of treatment.

**Methods**

Observational prospective study.

**Results**

40 patients were included in the study who started Ryeqo between August 2022 to Feb 2024 (18 months). Among the patients included 25 patients have endometriosis, 12 have uterine fibroids and 3 patients have both endometriosis and uterine fibroids.

Age group of included patients varied between 26 - 56 years.

Overall, amenorrhoea/light bleeding was found in 20 out of 40 patients (50%), 6 patients had no change in bleeding or experienced heavy /irregular bleeding. Rest others either stopped medication too early to comment on bleeding or had amenorrhoea prior to starting Ryeqo.

Pain relief was studied in the endometriosis/adenomyosis group. 15 patients out of 25 (60%) had complete or at least partial pain relief.

Side effects were overall noted in — out of 40 patients however only 5 of them stopped Ryeqo due to side effects rest all had manageable issues. Side effects were mainly menopausal symptoms like mood swings, vasomotor symptoms, decreased libido, vaginal dryness. Few uncommon side effects included unusual headaches, mild hair loss, palpitation, breast soreness, acne and severe toothache.

Treatment was discontinued by 10 patients at varying durations. 5 stopped due to no improvement / worsening of symptoms and 5 patients stopped due to side effects like mood/behavioural changes, palpitation, severe headache, severe toothache with no other cause and breast abscess.

**Conclusions**

Ryeqo is licensed for the management of moderate to severe symptoms of benign leiomyoma. Studies demonstrated improvement of pelvic pain in patients with endometriosis. Our study confirms that there is overall good symptom improvement in both fibroids and endometriosis, and it can be used as one of the treatment options after the primary ones have failed. The sample size in our study is small, we continue to recruit patients, and we will follow them to assess the long-term effects.

## ABST-0495 - P302

### ePoster and Video Presentations

#### Protective defunctioning stoma in bowel segmental resection at the time of total hysterectomy for endometriosis: when less is more.

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#### Background

When a segmental resection for bowel endometriosis is performed, a protective defunctioning stoma (PDS) could be considered, even if its effectiveness remains debated. The increase in surgical complexity, the need for a second surgery and the considerable discomfort for the patients should be also considered. The new French guidelines for the management of colorectal endometriosis consider PDS only in case of low rectal lesion and concomitant colectomy. The aim of this study was to compare postoperative complications in women undergoing total hysterectomy with segmental bowel resection (TH-SR) for intestinal endometriosis with or without protective PDS confection.

#### Methods

Retrospective cohort study conducted at the Gynaecologic department of University Hospital of Lille (France) from January 2008 to January 2022 in patients undergone TH-SR for symptomatic bowel endometriosis. The decision to perform PDS to protect the anastomosis was made according to intra-operative findings and basing on this decision, we retrospectively divided our study population in two group: the PDS-group and the non-PDS group. Data regarding patients' general characteristics, perioperative findings and postoperative complication according to Clavien-Dindo (CD) classification were retrieved. The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethical Review Committee of the University Hospital of Lille (CEROG 2022-GYN-1203).

#### Results

Of 124 women undergone to TH-SR for bowel endometriosis, 100 women were considered for the analysis. PDS was performed in 56 women. The rate of rectal resections was significantly higher in the PDS-group ( $p=0.03$ ). The mean operative time, AAGL scores and length of hospital stay were significantly higher in the PDS-group ( $p=0.002$ ). The rate of grade III complication according to Clavien-Dindo classification was higher in the PDS-group ( $p=0.03$ ). Among digestive complications, one case of anastomosis leakage (1.8%) and one case of recto-vaginal fistula (2.3%) was recorded in the non-PDS group, 4 cases of anastomosis stenosis were recorded in the PDS-group (7.1%). Persisting bladder atony requiring self-catheterization over one month was the most common complication (4.6% in the non-PDS group and 7.1% in the PDS-group,  $p=0.58$ ). The distance of digestive lesion from anal margin was the only risk factor for digestive complications, persistent bladder atony, Clavien-Dindo IIIA and IIIB complications at the multivariate analysis ( $p=0.04$  and  $p=0.06$  respectively).

#### Conclusions

In the absence of clear guidelines in the management of patients undergone TH-SR for endometriosis, our results suggest the absence of significant differences in the rate of digestive complications when performing or not PDS, potentially excluding its protective role. However, it was not possible to estimate the utility of PDS in low rectal lesion, significantly more frequent in PDS group. Larger, randomized studies reporting post-operative complications after performing TH-SR with or without PDS are required, especially in the presence of low rectal lesion and colectomy.

**ABST-0697 - P344**

**ePoster and Video Presentations**

**3mm laparoscopy for a hysterectomy, bilateral salpingo-oophorectomy and excision of superficial endometriosis. Are the smaller scars worth the hassle?**

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**Background**

With advancements in laparoscopic instrumentation fewer and smaller incisions such as 3mm can be used to accomplish a complex laparoscopic procedure such as a hysterectomy and shave of rectal endometriosis. We present the use of 3mm laparoscopic instruments, 4K imaging through a 5mm laparoscope and ICG ureteric visualisation. We demonstrate where microlaparoscopy is superior to conventional laparoscopy as well as its shortcomings and our approach and troubleshooting.

**Methods**

**INTRODUCTION:** A 44-year-old multiparous woman was referred with heavy and painful periods. She had completed her family and did not wish to preserve her fertility. Pelvic examination findings were unremarkable. A Mirena coil was initially inserted and later on GnRH analogues with add-back HRT were added for symptomatic relief until her surgery.

**INVESTIGATIONS:** MRI revealed adenomyosis with mild tethering of the bowel to the posterior surface of the uterus. There was no evidence of measurable plaque or deep infiltrating endometriosis.

**Results**

**SURGERY:** A cystoscopy was initially performed which revealed a healthy urothelium; the ureters were catheterised and ICG was administered. A laparoscopy followed with a 5mm umbilical port and two 3mm laparoscopic ports, one in each of the lateral iliac fossae. The uterus was bulky and anteverted, and superficial rectovaginal endometriosis was present. The left ovary was small and the right ovary normal. Both ovaries were suspended. Bilateral ureterolysis was performed, both pararectal spaces were entered and the rectum was mobilised. The hysterectomy was then continued through 3mm incisions. An advanced bipolar energy device was used for the infundibulo-pelvic and uterine vessels under visualisation using the 3mm laparoscope through the lateral ports. The colpotomy was performed with monopolar diathermy using the 3mm spatula and the specimens were removed vaginally. The vaginal vault was sutured with a barbed suture and the operation was completed with minimal blood loss. The patient was discharged home the following day on the enhanced recovery pathway.

**Conclusions**

**Conclusion:** This case highlights the advantages and disadvantages of microlaparoscopy in complex laparoscopic cases. Careful consideration of each clinical case, equipment available and expertise of the operating surgeon and the surgical team needs to be taken into consideration when deciding which approach to utilize.

**Laparoscopic excision of Douglas pouch fibroma in contact with the sigmoid colon**

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**Background**

This video article describes the laparoscopic excision of a fibroma located in the douglas pouch, in contact with the sigmoid colon. Patient consent to present and publish has been obtained.

**Methods**

The patient is a 49-year-old woman, with a history of a laparoscopic excision of a 10cm FIGO 4 fibroma 3 years ago. She presented to our outpatient office for routinely pregnancy monitoring, where ultrasound demonstrated a 6x6cm cauliflower-like pelvic tumour. Differential diagnosis of Magnetic Resonance Imaging (MRI) at 28 weeks of gestation included sarcoma, ovarian tumour and fibroma. Tumour markers were negative. Expecting management was decided until labour, and during pregnancy the tumour remained stable in size and morphology. At 39 weeks elective caesarean section was performed due to the history of fibro myomectomy, during which the tumour was recognised among the intestinal loops. Ultrasound imaging 3 months postnatally depicted the 4.5x4.5cm tumour located on the Douglas pouch.

**Results**

A laparoscopic approach was decided, during which the mass was firstly identified, and then excised from the surrounding tissue using bipolar bovie, laparoscopic scissors and laparoscopic suction/irrigation canula. The tumour was removed from the abdomen using a specimen retrieval bag in order to avoid tissue dispersion. Histologic diagnosis was uterine fibroid. The procedure resulted in optimal surgical result, with an uncomplicated post-operative period.

**Conclusions**

This case report demonstrates that pelvic tumours in difficult locations like such in contact with the sigmoid colon can be safely removed by experienced laparoscopic surgical team.

<https://player.vimeo.com/video/945524630?autoplay=1>

**vNOTES hysterectomy in a Patient with Morbid Obesity - Challenges and Tips**

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**Background**

Regardless of route of surgery, operating in patients with morbid obesity is challenging. Laparotomy in such patients is associated with longer postoperative recovery and also risk of wound infection. Hysterectomy by transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) is increasingly used as an innovative surgical technique in recent years. vNOTES uses the single-port approach via vaginal access to overcome the limitations of a narrow space and also requires lower pneumoperitoneum pressures than conventional laparoscopy.

We aim to describe the challenges faced during vNOTES surgery for patients with morbid obesity and describe the techniques used to overcome these challenges

**Methods**

We present a 59-year-old patient with morbid obesity (BMI 59.7kg/m<sup>2</sup>) who underwent a vNOTES hysterectomy for endometrial hyperplasia. She had 6 previous normal vaginal deliveries and no past medical or surgical history. Post-operatively, she recovered well and was discharged home on post-operative day 2.

**Results**

During the surgery, the difficulties encountered include inability for head down and inability to increase abdominal insufflation beyond 8-10mmHg in view of high ventilatory pressures and bradycardia. We also encountered pelvic adhesions at the posterior uterus and right uterosacral ligament which was possibly due to previous endometriosis and was unexpected as the patient had no prior surgeries.

To overcome this, we placed two ratex gauzes (one anteriorly and one posteriorly) to assist with retraction of the bowel for better visualisation of the surgical field. A tissue sealant device was used to seal and cut the structures which decreases unnecessary movements of the instruments in and out of the ports. We also had to remain adaptable and modify the steps of surgery to suit the area of best visibility and ease. A hysterectomy and delivery of the uterus was first performed to facilitate access. A bilateral salpingo-oophorectomy was then performed to complete the surgery.

**Conclusions**

vNOTES is a technique that is suitable in patients with morbid obesity. The technique allows for lower intra-abdominal pressures than that needed in conventional laparoscopy, and also results in lower pain and a faster post-operative recovery than laparotomy.

<https://player.vimeo.com/video/945518848?autoplay=1>



### Mini-laparoscopic uterosacral ligament plication for for apical and anterior female pelvic organ prolapse

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#### **Background**

Correction of Level 1 apical support is essential for preventing the recurrence of anterior vaginal wall prolapse when it occurs concurrently with apical prolapse. Numerous surgical techniques have been developed for the repair of apical pelvic organ prolapse. Mini-laparoscopic surgery represents a significant advancement for many laparoscopic procedures. While it has been utilized in various gynaecological surgeries, to our knowledge, this video presents the first documentation of a mini-laparoscopic approach to sacrouterine plication specifically for treating apical and anterior pelvic organ prolapse. In the accompanying video, we will detail the steps involved in this procedure and highlight the relevant anatomical structures.

#### **Methods**

The patient presented with a tissue protruding through her vagina and was diagnosed with stage 3 anterior and stage 2 apical prolapse according to the Pelvic Organ Prolapse Quantification System (POP-Q). An anterior vaginal wall repair was performed, which involved fascial repair and mucosal trimming. Abdominal access was achieved through one 5mm umbilical and two 3mm auxiliary trocars. Following the lateralization of the ureters, the intermediate portions of the bilateral uterosacral ligaments were plicated using polypropylene sutures. The distal parts of the uterosacral ligaments were then drawn to the midline and secured with separate intracorporeal knots using nonabsorbable sutures.

#### **Results**

POP-Q revealed a stage 3 apical prolapse, with the C point at +1. Postoperative assessment showed significant improvement, with the C point shifting to -7, thereby greatly enhancing the patient's quality of life. The total duration of the surgery was 60 minutes, with an additional 30 minutes dedicated to the plication procedure following the anterior repair. There were no intraoperative complications. Postoperative pain assessments indicated a very positive recovery trajectory. Follow-up consultations and anatomical assessments conducted at 1- and 3-months post-surgery showed excellent outcomes. The total length of the abdominal incisions was 11mm, which became nearly invisible within a month. The anatomical cure rate was recorded at 100%.

#### **Conclusions**

Surgical treatment for apical prolapse typically involves a suspension procedure, which may be performed with or without a hysterectomy to reduce the risk of recurrence. In selected patients, minilaparoscopic uterosacral plication offers an effective and feasible alternative. This technique minimizes incisions and morbidity in patients with pelvic organ prolapse, providing a less invasive option while maintaining surgical efficacy.

<https://player.vimeo.com/video/945837198?autoplay=1>

**ABST-0284 - VP061**  
**ePoster and Video Presentations**

**Hybrid vNOTES: should be taken in mind?**

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**Background**

Our main objective is to illustrate that some consideration can be made to perform some selected surgical procedures as hybrid vNOTES under laparoscopic abdominal view to overcome any concern relating to distorted pelvic anatomy and adhesions in some instances.

**Methods**

Implementation of a hybrid access in a 47-year-old patient with an increased risk of complications. The patient carried a familial pathogenic variant: c.3040\_3042del; p. (Lys1014del) in the MSH6 gene and she had two previous caesarean sections and a doubtful history of pelvic inflammatory disease.

**Results**

According to Kapurubandara et al. (2021) "Consideration can be made to perform the procedure as hybrid vNOTES under laparoscopic abdominal view to overcome any concern relating to distorted pelvic anatomy and adhesions in such instances." We know and are clear that the main benefit of the vNOTES procedure is to avoid abdominal scars, but in some very rare, well-selected and justified cases, the hybrid approach can be extremely useful to avoid complications in access to the anterior and, above all, posterior abdominal compartment.

**Conclusions**

The main objective of sharing this specific case is to highlight that it has provided us with many advantages and help in teaching the procedure to new surgeons in the technique. We have secondarily used this hybrid access in a didactic manner to help visualize and understand the procedure jointly in both ways. Because as Kapurubandara et al. (2021) refer "The view through a vNOTES port is opposite and reversed to that of conventional laparoscopic view. A vNOTES surgeon at the start of their learning curve must get used to this new perspective."

<https://player.vimeo.com/video/945807915?autoplay=1>

ABST-0298 - VP065

ePoster and Video Presentations

### Exploring Robotic Surgical Techniques for Treating Giant Endometrioma: Guaranteeing a Minimally Invasive Approach.

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#### Background

An endometrioma is a cystic formation in the ovary containing endometrial-like tissue, often associated with endometriosis. It is well known that the minimally invasive surgical approach has many benefits when compared to laparotomy. Even for voluminous lesions, the minimally invasive approach can be employed provided there is expertise within the surgical team and thorough surgical planning. We aim to demonstrate a surgical video of a minimally invasive approach for a giant endometrioma.

#### Methods

Case report illustrated with a surgical video.

#### Results

JJM, a 31-year-old woman, presented with progressive increase in abdominal volume over three years. She experienced compressive symptoms, such as increased urinary frequency and lower limb swelling. An MRI, in November 2023, uterus was observed to be laterally displaced to the right, with a volume of 42 cm<sup>3</sup>. Additionally, a mantle-like lesion was observed on the uterine torus, resulting in fibroadhesive processes involving the uterosacral ligaments, measuring approximately 0.5 x 0.7 x 3.0 cm without signs of deep parietal infiltration. Furthermore, the left ovary showed marked enlargement due to a voluminous endometrioma measuring 18.0 cm with an estimated volume of 1200 mL. The patient is under general anaesthesia and positioned in lithotomy position, with arms alongside the body and legs abducted at 80 degrees in adjustable stirrups. Four punctures were performed: one for the optics inserted through the umbilical scar, and two incisions on the right and left flanks. The intervention involves the draining of the endometrioma, including the dissection of adhesions, followed by the removal of the specimen through culdotomy. The procedure lasted 2 hours with minimal bleeding. The patient had a good postoperative recovery and was discharged 1 days after surgery. Anatomopathological examination confirmed the presence of endometrioma. The patient experienced complete improvement of symptoms in the late postoperative period.

#### Conclusions

This case underscores the efficacy of minimally invasive surgery, even in the management of extensive lesions, aiming to optimize patient care.

<https://player.vimeo.com/video/945844833?autoplay=1>

### Hydrosalpinx in a post-menopausal woman: a case report of nerve-sparing surgery

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#### Background

Hydrosalpinx is a pathology of the Fallopian tubes characterized by an accumulation of liquids at their ends which effectively obstructs them. It can affect only one tube (this is the most frequent case) or be bilateral. It has no specific symptoms and one of the first signs is women's infertility. It therefore appears clear that diagnosing hydrosalpinx in post-menopause is a very rare event, especially if this adnexal inflammatory process also involves the sigmoid colon. Laparoscopic excision of the lesion is mandatory to completely remove the disease and to have a histological diagnosis of the lesion found during instrumental investigations.

#### Methods

Surgical demonstration of a large laparoscopic resection, using a radical nerve-sparing approach also for an inflammatory disease.

Video showing resection of uterus, adnexa and rectum in one piece, and principles of laparoscopic neurolysis of the pelvic nerves to free them from cicatricial fibrotic processes.

#### Results

Here we report a case of hydrosalpinx in a post-menopausal woman. A 66-year-old post-menopausal woman presented with left lower abdominal pain. Sonography depicted a simple cystic mass adjacent to the left uterine border. Magnetic resonance showed a formation with an elongated morphology in the left adnexal area and a thickening of the walls of the sigmoid-rectum colon with associated numerous diverticular formations.

The complete isolation of all structures ensures a safe dissection of inflammatory disease involving the tubal region and intestinal loops causing hydrosalpinx and complicated diverticulitis respectively.

#### Conclusions

Complicated inflammatory disease not responsive to medical therapy should be treated in referral centers by experienced surgeon. In fact, a broad knowledge of pelvic but also abdominal anatomy as well as expertise in laparoscopic surgical techniques are mandatory due to the high intraoperative risk.

<https://player.vimeo.com/video/945915245?autoplay=1>

**“Lost and Found”: Navigating Abdominal Ectopic Pregnancy a Stepwise Approach**

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**Background**

Abdominal pregnancies occur in the abdominal cavity, outside of the reproductive organs. They account for approximately 1% of all ectopic pregnancies. Despite their rarity, they carry a significantly increased maternal mortality rate, nearly 8-fold increase in comparison to tubal ectopic pregnancy, and 90-fold increase in comparison to intra-uterine pregnancy.

**Study Objectives**

1. To review the incidence and pathophysiology of abdominal and omental ectopic pregnancies, as well as diagnosis the diagnostic tools, criteria, and treatment options.
2. To propose a systematic surgical approach for laparoscopic identification and management of abdominal ectopic pregnancy

**Statement of Consent:** Patient has explicitly consented for participation in research. Verbal and written consent for recording and presentation were obtained.

**Methods**

Systematic surgical approach for laparoscopic identification and management of abdominal ectopic pregnancy

**Results**

We developed a 6-step surgical approach to laparoscopic identification of abdominal ectopic pregnancy, demonstrated in this video. We also demonstrate a case of successful laparoscopic identification and excision of an abdominal ectopic pregnancy implanted on the omentum.

**Conclusions**

In conclusion, the rarity and high morbidity of abdominal ectopic pregnancies stresses the need for requires early recognition and intervention. Our stepwise surgical approach, including systematic abdominal survey and intraoperative patient repositioning, is a useful technique for provides a safe stepwise method to ensuring identifying and appropriately managing an abdominal ectopic pregnancy.

<https://player.vimeo.com/video/945944499?autoplay=1>

### **Pudendal nerve block: 3-steps approach guided by ultrasound and neurostimulation**

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#### **Background**

Pudendal nerve block holds diverse applications in gynaecology for both diagnosis and therapy of pudendal neuralgia. Despite its well-documented benefits, the technique remains underutilized in clinical practice.

Composed primarily of somatic (70%) and autonomic (30%) fibres, the pudendal nerve plays a crucial role in providing essential sensory innervation to the perineum, external genitalia, corpus cavernosum of clitoris and superficial transverse muscles of the perineum. The pudendal nerve originates from sacral plexus roots S2-S4, with additional contributions from S1 and S5.

#### **Methods**

This video aims to demonstrate a 3-steps technique for achieving local anaesthesia of the pudendal nerve territory. It illustrates the procedure performed on a 28-year-old woman presenting with pelvi-perineal pain radiating to the lower limbs since her second delivery.

Specifically focusing on the anterior approach, the procedure unfolds as follows:

1. 1. Anatomical landmarks:

With the patient in the gynaecological position, identify a straight line extended from the upper edge of the anus laterally until reaching the ischial tuberosity. Utilize ultrasound to aid in identifying the ischial spine and the pudendal nerve-vessel fascicle.

1. 2. Neurostimulation

Introduce a 22G x 80 mm needle connected to a stimulating system under ultrasound guidance. Neurostimulation facilitates detecting contractions in both the posterior (perineal) and anterior (labial/clitoral) branches of the pudendal nerve. Adjust stimulation frequency to 0.6 or 0.4 milliamperes for precise nerve localization, ensuring avoidance of intraneural injection.

1. 3. Injection

Confirm vascular absence through an aspiration test, followed by injection of 20 cc of ropivacaine 0.375%. Muscular contractions typically subside during injection.

#### **Results**

The patient experienced rapid relief post-injection, reporting dyspareunia resolution during the post-surgery follow-up at 3 months.

#### **Conclusions**

By combining ultrasound guidance with electrostimulation techniques, clinicians can achieve optimal outcomes in pudendal nerve blocks, providing rapid and reliable pain relief for patients suffering from pelvic pain syndromes.

<https://player.vimeo.com/video/945959743?autoplay=1>

### **Modified Hasson Supraumbilical Entry – A Safe and Quick Laparoscopic Entry Technique**

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#### **Background**

At Laparoscopy, the risk of vessel injuries is 0.2/1000 and intestinal injuries is 0.6/1000. The most effective way & safest technique to reduce complications at laparoscopic entry is still controversial. The rate of intrabdominal adhesion formation between omentum and the anterior abdominal wall at the umbilicus may be up to 23% following transverse / Pfannensteil incisions and up to 50% following midline incisions. The umbilicus may not, therefore, be the most appropriate site for primary trocar insertion following previous abdominal surgery.

#### **Methods**

We describe a modified supraumbilical open technique for gaining access into the abdominal cavity with distinct advantages over the conventional umbilical open technique or Veress needle.

#### **Results**

We describe a supraumbilical incision for the primary port entry as adhesions are generally not encountered in the upper abdomen.

Two Littlewood's forceps are applied to the superior edges of umbilicus to tent the umbilicus and keep the umbilical stalk under tension. Supraumbilical transverse incision is given 2 cm above the umbilicus. Continuous traction of the umbilical stalk increases the distance between the abdominal wall and intraabdominal organs. The skin and subcutaneous tissues beneath are retracted by Langenbeck retractors. The rectus fascia is exposed in the midline by clearing the subcutaneous tissues with a curved dissecting forceps. Once the rectus sheath ridge is exposed, a vertical incision is made in the rectus sheath, and the peritoneum is then opened with a Schnitz forceps/finger and Hasson blunt trocar is inserted. Intraperitoneal entry is confirmed by direct visualisation through a laparoscope.

#### **Conclusions**

In conclusion, modified supraumbilical Hasson entry is a quick, simple and safe technique with distinct advantages especially in patients with previous abdominal surgery. This technique can be used routinely as well as in extremes of BMI.

<https://player.vimeo.com/video/949353139?autoplay=1>

**Laparoscopic over open surgery for management of ruptured tubal ectopic pregnancy**

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**Background**

The rupture of an ectopic pregnancy is a life-threatening emergency that can cause severe internal bleeding and requires swift action and decisive decision-making. The surgeon must act quickly to stabilize the patient and surgically control the bleeding. Laparoscopic surgery is the preferred approach for its advantages in terms of minimally invasive nature and faster recovery, but open surgery remains an important option, offering sometimes better visualization and control of the situation.

**Methods**

We present a 34-year-old gestational carrier who presented with pelvic pain and an episode of loss of consciousness at 5 weeks and 6 days' gestation. An ultrasound scan demonstrated an empty uterus, free fluid in Douglas pouch and a complex mass in the RT fallopian tube. Thus, a ruptured ectopic pregnancy was suspected and emergency surgical management was decided.

**Results**

An urgent laparoscopy was performed. After aspiration of the blood, a ruptured right tubal ectopic pregnancy was identified with an active bleeding jet. Haemostasis was urgent and right salpingectomy was necessary to control the bleeding and remove the pregnancy tissue. The surgeons described a normal right ovary and left adnexa. The postoperative course was uneventful. In a follow-up visit, the patient was feeling well and symptom free, with negative hCG. The pathological report confirmed the presence of chorionic villi in the fallopian tube, validating the diagnosis of a tubal ectopic pregnancy.

**Conclusions**

In the urgent situation of a ruptured ectopic pregnancy, time is of the essence in preventing further haemorrhage and preserving the patient's life. The decision regarding the surgical approach is made based on the patient's condition, the urgency of the situation, the surgeon's experience and expertise, and the available resources with laparoscopy being the preferred approach

<https://player.vimeo.com/video/950783278?autoplay=1>



**The retrograde migration of foreign bodies inside the female genital tract. A novel indication for hysteroscopy.**

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**Background**

To describe the role of hysteroscopy in diagnosing and managing retained foreign bodies in the female genital tract of adolescents and adult females.

**Methods**

**Case 1:** A 12-year-old adolescent, who had never been sexually active, presented with foul-smelling vaginal discharges. An MRI revealed a hyperintense structure enlarging the cervical canal, which was confirmed by 2D/3D ultrasound. Diagnostic hysteroscopy under general sedation revealed a 4 cm grey-coloured foreign body with a concavity towards the cervix, exhibiting a "suction effect." Radial incisions with a bipolar electrode and a Foley-catheter were used under hysteroscopic guidance to mechanically dilate the vaginal canal. This facilitated the progression of the foreign body until it was removed using a vaginal approach. The object was identified as the cap of a spray bottle for cosmetic use, which the patient did not recall inserting two years prior. No vaginal or hymenal lacerations were observed post-procedure.

**Case 2:** A 39-year-old patient (G2P2) was referred with a suspected retained vaginal foreign body following a vaginal douche. A vaginal exam revealed no foreign body inside the vagina. However, a 2D ultrasound could not localize the foreign body. Diagnostic hysteroscopy revealed a 1.5 cm cylindrical foreign body in the uterine cavity. Radial incisions and a Foley-catheter were used for mechanical dilation. The foreign body was easily extracted using hysteroscopic grasping forceps.

**Results**

Both cases demonstrated the successful management and extraction of retained foreign bodies using hysteroscopy.

**Conclusions**

The presence of retained foreign bodies in the female genital tract poses a significant challenge for gynaecologists. Hysteroscopy is a valuable tool for evaluating and extracting retained foreign bodies, particularly in virgo patients. The use of a Foley catheter is an effective strategy for the mechanical dilation of the cervix and vaginal canal, facilitating easy extraction. This combined hysteroscopic and vaginal approach minimizes the risks associated with a completely blind approach.

<https://player.vimeo.com/video/951982891?autoplay=1>

**Treatment Of Rectovaginal Fistulas With The Over-The-Scope Clip**

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**Background**

Over-the-scope clip (OTSC) is widely used in colonoscopy clinics for the treatment of gastrointestinal tract's iatrogenic perforations, fistulas and for haemostasis. The aim of this video presentation was to show the case applied with OTCS for rectovaginal fistula and to demonstrate feasibility and effectiveness of OTSC for rectovaginal fistulas.

**Methods**

The study included patients on whom OTSC was performed due to rectovaginal fistula. All the procedures were performed under sedation via a high-resolution colonoscope under CO<sub>2</sub> insufflation. The cases were evaluated in terms of age, gender, localization of the defect, additional disease, size of the defect, the reason of rectovaginal fistulas occurred, procedure success, clinical success, number of clips, time of OTSC application after the first procedure and duration of follow-up. The follow-up of all cases was performed clinically, radiologically and endoscopically. Patients with improved clinical and radiological findings were followed up at 6 months and 1 year with control endoscopy or colonoscopy.

**Results**

The procedure was performed in 4 patients with rectovaginal fistulas. 5 OTSC were used. Technical success was achieved in all 5 procedures performed in 4 cases. Long-term clinical success was achieved in 3 of 4 cases.

**Conclusions**

The over-the-scope clip is an endoscopic method that can be used safely in the treatment of rectovaginal fistulas of < 1 cm with a low possibility of morbidity and a high success rate.

<https://player.vimeo.com/video/952063014?autoplay=1>

**Vaginal morcellation of a large uterus with a suspicious myoma in a bag.**

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**Background**

We aimed to demonstrate in-bag coring of a 14- week of the uterus through the vagina during total laparoscopic hysterectomy.

**Methods**

The video article demonstrates the management of a 47-year-old woman who complains of lower abdominal pain. Pelvic examination revealed an enlarged uterus, and transvaginal ultrasound showed several intramural and subserous myomas. The contrast-enhanced MR raised the suspicion of STUMP (Smooth muscle tumour of unknown malignancy potential) due to restricted diffusion and increased T2 signal in an anteriorly positioned myoma with a five-centimetre diameter. A total laparoscopic hysterectomy with bilateral salpingectomy was performed. After completing the colpotomy with monopolar energy, a laparoscopic morcellation bag was inserted into the abdomen through the vagina. The specimen was placed in the bag. Myometrial coring was performed through vaginal using a scalpel within the bag. By the uterine coring technique, anteriorly located, the large myoma was excised from the uterus and taken out of the bag. Then, the uterus was taken out of the bag. The vaginal cuff was sutured with 3/0 Barbed suture. No complication occurred. The patient was discharged on postoperative day two.

**Results**

Controversies about tissue extraction during laparoscopic surgery have persisted since the FDA's press release in 2014. Laparoscopic morcellation infers several drawbacks, such as upgrading potential uterine sarcoma, increasing post-operative parasitic fibroid, and direct intraabdominal injury incidence. Thus, in-bag uterine coring seems to be an effective alternative. Also, a more detailed pathologic examination is amenable by leaving a less fragmented specimen than power morcellation.

**Conclusions**

Uterine coring in-bag could be a good practice point in challenging tissue extraction procedures.

<https://player.vimeo.com/video/950971657?autoplay=1>

**Repair of isthmocele niche with hysteroscopy when myometrial residual wall is extremely thin: A new approach with concomitant assistance of laparoscopy.**

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**Background**

Isthmocele is a common entity with the more frequent utilization of caesarean section in modern obstetric care. Vaginal spotting, pelvic pain and decrease in potency of fecundity are attributed symptoms of isthmocele. When compared with vaginal and laparoscopy approaches, hysteroscopy might be superior with its shorter recovery time and lack of requirement for suturing. However, in patient with < 3 mm of myometrial residual thickness (RMT), the risk of vesical injury might be evident during the electrocauterization of niche. Herein, we aimed to present a new approach, as might be quoted as Orhan-method, for a patient with a symptomatic niche, in which repair was all completed with hysteroscopy with the concomitant assistance of laparoscopy.

**Methods**

A 39-year-old woman admitted with the complaint of heavy vaginal spotting for three years. Two previous caesarean section was significant in her medical history without and abnormality in hormonal levels. An isthmocele niche was noticed with the diameters of 8.6 x 6.4 mm in the lower portion of uterus having a 2.1 mm of RMT depicted with vaginal ultrasonography. Since she was willing to have a pregnancy in the future, a surgical management was planned. Due to thin RMT, not only an intervention with hysteroscopy but also the assistance of laparoscopy was scheduled to avoid bladder injury. Following the insertion of hysteroscopy, laparoscopy was done immediately, and bladder was dissected over the niche with the aim of illuminating light of hysteroscopy. Afterwards, as shown in the video, resection of the side walls and electrocauterization of the tip of the niche were performed by hysteroscopy with the help of the light used to illuminate in laparoscopy.

**Results**

The total operation time was 40 minutes without any complication. Fifty days after laparoscopy assisted niche repair with hysteroscopy, the patient had no complaint of vaginal spotting. The following visits presented the healed area of niche without any isthmocele appearance with ultrasonography.

**Conclusions**

To our knowledge, this is the presentation of the first case of isthmocele repair completely via hysteroscopy but with the concomitant assistance of laparoscopy, as might be quoted with Orhan-method. If this approach has been validated with further case series, it might be offered to patients with thin RMT without any lower threshold which will hence provide the advantages of hysteroscopy such as no requirement of suturing.

<https://player.vimeo.com/video/951697638?autoplay=1>

**Total laparoscopic hysterectomy without the use of uterus manipulator, Video presentation the 8 steps technique**

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<sup>3</sup>*University Hospital of Ioannina, Blood Bank and Transfusion Center, Ioannina, Greece*

**Background**

The Background of this Video presentation is to demonstrate the feasibility and safety of Total Laparoscopic Hysterectomy (TLH) without manipulator or any vaginal tube.

**Methods**

The uterus is pull cranially, and slightly lateral to the opposite side where the dissection begins.

step 1. Coagulation and dissection of the ovarian ligament and Fallopian tube (or the infundibulopelvic ligament).

step 2. Dissection of the posterior peritoneum are performed towards the utero-sacral ligaments and very closed to the uterus.

step 3. Transect the round ligament and separate the anterior and posterior leaves of the broad ligament

step 4. Uterine vessels coagulation and dissection, this step is performed, closed to the uterus using appropriate energy source

step 5. Mobilize the Bladder. We feel the bladder with sterile water and in case of adhesion or prior caesarean delivery, we feel the bladder with sterile water and methylenblue day. This helps us to avoid bladder injury and make the mobilization easier.

step 6. Colpotomy. The surgeon placing his finger between the anterior cervical space and vagina identifying the point of colpotomy. With a scissor the surgeon performed a small incision (approximate 1 cm) above his finger and having his finger as identification point for the incision. Then Proceed to the dissection of the cervix from the vagina using the coagulation and cutting device.

step 7. Removal of the Uterus using a grasper

step 8. Laparoscopic Vaginal Cuff Closure, Closure begins at the distal angle of the vaginal cuff and proceeds in a single knots fashion, making sure to include the vaginal mucosa and the pubocervical and rectovaginal fascia.

**Results**

Between January 2011 and February 2024, we performed 2642 total Laparoscopic Hysterectomies, without using any kind of uterine manipulator.

The average age was 52.1 years and BMI 27.1 kg/m<sup>2</sup>, while the mean operative time was 68 min (43-168 min), the estimated blood loss was 85 mL (20-260 ml) and the mean uterine weight was 282 g (40-1880 g). There was no case of conversion to laparotomy. A blood transfusion was required for 121 patients (2.1 %), while there was two cases of ureteral injury and three cases where the bladder was opened and fixed laparoscopically. The average hospital stay was 1.4 days. In the long term, we had 16 cases (0.6 %) of vaginal vault dehiscence and one case of vaginal vault hematoma.

**Conclusions**

TLH without the use of uterine manipulator is a feasible and safe procedure. Our results prove that the use of uterine manipulator is not mandatory to perform total laparoscopic hysterectomy.

<https://player.vimeo.com/video/921763861?autoplay=1>

**Laparoscopic anatomic identification of inferior hypogastric nerve and plexus**

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**Background**

This video presentation demonstrates the laparoscopic anatomy necessary for the nerve sparing radical hysterectomy and for the radical resection of deep infiltrating endometriosis. We meticulously separated the blood vessels and connective tissues to preserve, the pelvic splanchnic nerve, the hypogastric nerve and the bladder branch of the inferior hypogastric plexus. We present our technique, surgical and patient outcomes in patients that underwent laparoscopic nerve sparing surgery in our institution.

**Methods**

We aim to demonstrate the entire structure of the inferior hypogastric nerve and plexus in the female pelvis. We present data from 115 patients that were operated in St. Luke's Hospital in Thessaloniki during the last 12 years. All data were retrospectively collected and analysed, emphasizing on intraoperative and postoperative complications

**Results**

In all patients the identification of the hypogastric nerve and plexus was possible. All patients recovered their urinary function completely by POD 3-5. This is a retrospective study of 72 patients with cervical cancer that underwent laparoscopic nerve sparing radical hysterectomy and 43 patients with deep infiltrating endometriosis. In all cases hypogastric nerve and hypogastric plexus were identified and preserved during the operation. The postoperative period was uneventful concerning voiding function.

**Conclusions**

Preservation of the pelvic splanchnic nerve as well as from the inferior hypogastric plexus can provide satisfactory postoperative voiding function and are crucial in cases of radical hysterectomy or deep infiltrating endometriosis. In all patients the identification of the hypogastric nerve and plexus was possible.

<https://player.vimeo.com/video/926223468?autoplay=1>

**Laparoscopic myomectomy of a cervical (myoma)**

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**Background**

Uterine myomas (fibroids or leiomyomas) are one of the most common benign smooth muscle tumours in women with a prevalence of 20–40%, Classical symptoms related to myomas are abnormal uterine bleeding, chronic pelvic pain, dysmenorrhea. Cervical leiomyomas are a rare benign disease and are very uncommon with a frequency of 0.6%. There is not a standardized treatment for cervical leiomyomas, but they are mainly treated surgically

**Methods**

We report a Case report of a 34-years-old nulliparous, Virgo intacta patient with a cervical myoma approx. 8 cm on the anterior cervix wall. The patient had dysmenorrhea and abnormal uterine bleedings. We proceed to the laparoscopic myomectomy, the cervical wall was completely open without to injure the endometrium of the cervical canal. During the myomectomy the Cervical canal can be completely open but then must important part it's to save the endometrium of the cervical canal. In the last 10 years, we treated laparoscopically 27 cases with cervical myomas without any complications and with a fertility rate of 42%. Classifications of cervical myomas: most of them are based on their location, distinguishing subserosal myomas (defined extracervical type) from myomas located within the cervix (defined intracervical type).

**Results**

The surgical treatment of cervical myomas can be more difficult, this is due to the risk of intraoperative haemorrhage and to the potential injuries to the adjacent organs that are often dislocated and contiguous to the cervical myoma; this may cause a subverted anatomy of the pelvis requiring experienced surgeons. We fill always the bladder with sterile water and methylene blue to identify the borders between the blade wall and the anterior cervix wall. Furthermore, the position of the myoma in the cervix poses an extra challenge in the surgical approach in case of a fertility-sparing approach.

**Conclusions**

In the last 10 years 27 cases with cervical myomas were treated laparoscopically. Surgery is the primary therapeutic option for cervical myomas with a low rate of surgical complications. The surgical treatment of cervical myomas can be challenging and, therefore, require a great experience and expertise of the surgeon. The cervical myoma has been identified as an independent factor of infertility and affecting the operation time and the complication rate in minimally invasive surgery.

<https://player.vimeo.com/video/934051479?autoplay=1>

**Laparoscopic mermaid delivery of a cornual pregnancy after temporary ligation of uterine vessels: A Case Report**

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<sup>1</sup>*Lucina Women and Children Hospital, Gynecology, Kaohsiung City, Taiwan- CN*

**Background**

Cornual pregnancies are uncommon, comprising around 1% of ectopic pregnancies. They carry a heightened risk of complications, notably rupture, which can lead to severe hemoperitoneum and life-threatening situations. Surgical intervention may be challenging due to the propensity for intraoperative blood loss. One potential strategy to mitigate bleeding and aid in the removal of the ectopic pregnancy, along with repairing the affected cornu, is preemptive ligation of uterine vessels.

**Methods**

Temporary ligation of uterine feeding vessels facilitates a bloodless laparoscopic procedure for treating cornual pregnancy comprehensively. This approach allows for precise and thorough removal of gestational tissue. The cornual resection and subsequent multiple-layered repair proceeded without any complications.

**Results**

By comprehensive temporary ligation of uterine feeding vessels, a blood-less procedure can be achieved to treat cornual pregnancy laparoscopically. En caul delivery (Mermaid delivery) was achieved and gestational tissue removal was precise and thorough in such settings. Uneventful cornual resection and multiple-layered repair were performed.

**Conclusions**

In the patients described, laparoscopic cornual resection emerged as a safe and effective treatment for cornual pregnancy. Emphasizing bleeding control before cornuostomy is vital for creating a tailored environment that allows for a range of subsequent surgical options.

<https://player.vimeo.com/video/943170019?autoplay=1>



**Management of a large cystic teratoma in the second trimester of pregnancy**

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**Background**

The objective of this video is to demonstrate removal of a large cystic teratoma in the second trimester of pregnancy using a combination of laparoscopy and mini-laparotomy.

**Methods**

We demonstrate a surgical approach involving a laparoscopic left salpingo-oophorectomy, removal of complex pelvic mass, and mini-laparotomy for specimen removal.

**Results**

The case is that of a 37-year-old at 17 weeks gestational age presenting to care with periumbilical pain and abdominal distension. Tumour markers were negative other than a slightly elevated Ca-125. Ultrasound and MRI images were suggestive of a large mature teratoma. Entry at Palmer's point was utilized to facilitate cyst removal in the case of the gravid uterus and large cystic mass. Decompression was conducted using an endoloop suture, trocar, and laparoscopic suction. Copious irrigation was utilized to minimize peritoneal and uterine irritation. Calcifications can hinder laparoscopic removal of large teratomas and require open removal. A self-retaining retractor was used to improve visualization, minimize cyst spillage, and facilitate rapid tissue removal. Placement of the wound retractor also allows for reaccumulation of pneumoperitoneum once the laparotomy has been performed.

**Conclusions**

We demonstrate safe removal of a large cystic teratoma in the second trimester of pregnancy. To date, the patient has a continuing healthy pregnancy.

<https://player.vimeo.com/video/943907184?autoplay=1>

**Interstitial and Cornual Ectopic Pregnancies, Step by Step Laparoscopic Management Technique- Video Poster Presentation**

*Necmiye Döver<sup>1</sup>, Georgia Smith<sup>1</sup>, Mark James<sup>2</sup>*

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**Background**

Interstitial and cornual ectopic pregnancies account for 2-6% of all ectopic pregnancies. In interstitial ectopic pregnancy, the gestational sac implants to the proximal and intramural portion of the fallopian tube that is enveloped by the myometrium. In cornual ectopic pregnancy, the implantation and development of a gestational sac in one of the upper and lateral portions of the uterus. In cornual and interstitial pregnancies, the surrounding myometrial tissue allows progression of the pregnancy into the second trimester. However, at such an advanced gestation, a ruptured ectopic may result in catastrophic intra-abdominal bleeding. An effective surgical, but endoscopic versus open technique, may improve patient's morbidity and post operative recovery.

**Methods**

We describe a five-step laparoscopic management technique for surgical treatment of cornual and interstitial ectopic pregnancies. This technique is safe and efficient, which could be applied by any gynaecological surgeon who has laparoscopic suturing skills with ability to perform an intracorporeal or extracorporeal knot tying. Preoperative assessment, surgical instrument selection and vasopressin dose and injection prior to surgery also explained in this video poster.

**Results**

Laparoscopic management of cornual and interstitial pregnancies provides quick recovery and less morbidity for patients. Complete laparoscopic removal of affected tube gives better chance of future intrauterine pregnancy with healthy remaining tube. Surgeon's lack of laparoscopic suturing skills may prefer (open) laparotomy for surgical management of similar cases. However, laparotomy would not necessarily improve outcomes but increases complication rates and results in longer recovery.

**Conclusions**

In our experience, patient treated with this technique had quick recovery, same day discharge and conceived spontaneously in 3 months following procedure with a viable intrauterine pregnancy. Alternative methods of treatment could be considered, such as methotrexate injections, if the patient is not fit for surgery.

<https://player.vimeo.com/video/945410507?autoplay=1>

**ABST-0133 - VP035**  
**ePoster and Video Presentations**

**V-NOTES: The least invasive surgery for adnexal tumors**

*Masaaki Andou<sup>1</sup>, Yoshihumi Ochi<sup>1</sup>, Mari Sawada<sup>1</sup>, Tsutomu Hoshiba<sup>1</sup>, Kiyoshi Kanno<sup>1</sup>, Shiori Yanai<sup>1</sup>*  
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**Background**

To show five kinds of adnexal surgery using V-NOTES.

**Methods**

Cases presented suffered from tubal pregnancy, simple ovarian cyst, solid ovarian tumour, benign cystic teratoma, and huge ovarian cystic tumour. Interventions for each case will be described. The first case underwent a salpingectomy combined with adhesiolysis. The second case underwent an adnexectomy with a peri-ovarian adhesiolysis. The third case underwent an adnexectomy for a solid ovarian tumour using a retrieval protection bag. The fourth case underwent an ovarian cystectomy with intracorporeal suturing for haemostasis. The fifth case had a huge cystic tumour which required the draining of the content by a double balloon catheter to minimize spillage. All patients gave their consent for their surgical footage and data to be used for research and educational purposes.

**Results**

No patients experienced conversion to laparotomy or laparoscopy. No case underwent blood transfusion. No patients recorded pain on the second post operative day.

**Conclusions**

V-NOTES can be applied to a variety of adnexal tumour cases effectively and safely. This surgery offers the advantage of not only a scarless surgery but reduced pain.

<https://player.vimeo.com/video/945410886?autoplay=1>

**Minimizing robotic gynaecology surgery using the GelPORT mini advanced access platform**

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**Background**

The robotic surgery has technological advantages over the conventional laparoscopy due to the three-dimensional view and improved dexterity. However, it is mostly used when all 4 trocars are needed, and in addition, an accessory trocar is inserted to allow assistance during the procedure. The GelPOINT Mini advanced access platform accommodates multiple instruments through one incision site therefor reducing the number of incisions needed.

**Methods**

This video demonstrates the use of the GelPOINT Mini advanced access platform to minimize the number of incisions used in robotic benign gynaecology surgeries.

**Results**

The video presents the use of the GelPOINT Mini advanced access platform. Entry to the abdomen was achieved through 2 cm umbilical incision using the open technique. The Alexis ring was then inserted and was covered with the GelPOINT that included: one robotic trocar, insufflation tubing and a GelPOINT trocar. The abdomen was insufflated to 15 mmHg and additional two robotic trocars were placed under direct visualization. The video demonstrated the use of the technique for robotic myomectomy and robotic cystectomy. At the end of the procedures, both specimens were removed in contained tissue extraction bag through the umbilical incision avoiding unnecessary additional abdominal incisions.

**Conclusions**

The placement of multichannel port through a GelPOINT device results in a single surgical scar in the umbilical orifice, minimizing the number of the total incisions. The use of a specialized umbilical port offers convenient modification of port configuration during robotic surgery and aids in improving extracorporeal dissection.

<https://player.vimeo.com/video/945395433?autoplay=1>

### **Vesicovaginal fistula**

*Zauresh Barmanasheva<sup>1</sup>, Daniyar Djakupov<sup>1</sup>*

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#### **Background**

Patient, 36 years old, third birth, complicated by massive bleeding. During childbirth, doctors decided to remove the uterus to save the woman's life. Six months after surgery, the patient noticed urine leakage from the vagina. I turned to doctors for help, and conservative treatment was prescribed: anti-inflammatory, local healing vaginal suppositories, antibacterial. Over the course of a year, the woman turned to different doctors for help, but to no avail. An MRI showed a vesicovaginal fistula, but it could not be detected on examination. The patient wore a diaper for a year and noted an unpleasant smell of urine on herself.

#### **Methods**

The patient wore a diaper for a year and noted an unpleasant smell of urine on herself. The patient came to our clinic in March 2022. After a vaginal examination, it was decided to perform a cystoscopy. Cystoscopy is an examination of the bladder from the inside using a video camera. Cystoscopy revealed a fistula measuring 1.0\*0.5 cm on the posterior wall of the bladder. Laparoscopy revealed an adhesive process caused by previous operations. In 2015, the patient underwent laparotomy for intestinal obstruction before her third birth. And the second operation in her life was removal of the uterus during childbirth.

#### **Results**

During the operation, most of the adhesions were separated. You can see in the video how we separate the adhesions between the loops of the small and large intestines. The adhesions are separated using a blunt or sharp method, allowing access to the small pelvis. The next stage is the release of the bladder. It is necessary to isolate the bladder to the area that we identified on cystoscopy. When the fistula has finally been found and the bladder is separated from the anterior wall of the vagina, it is necessary to freshen the edges of the wound. After updating the edges of the wound, it was sutured with absorbable suture material in two rows. The patient received antibiotic therapy before and after surgery. The urinary catheter remained in the bladder for a week, but despite this, the woman was discharged on the second day after surgery with a urinary catheter. After removal of the catheter, the level of residual urine was checked, and an ultrasound of the bladder was performed two weeks after the operation. The patient was advised to urinate every three hours for a month. At the moment, the patient notes a significant improvement in her quality of life.

#### **Conclusions**

Post-treatment, patient regains urinary control and resumes normal activities. Successful treatment of vesicovaginal fistula restores patient's urinary continence and quality of life.

<https://player.vimeo.com/video/944397755?autoplay=1>

**Why did the barbed suture come undone? Slippage of V-loc after suturing the ovary post 20cm dermoid cystectomy**

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**Background**

Barbed sutures are designed to distribute tension evenly and secure tissue without the need for knots. These sutures have barbs that lock into tissue preventing the suture from slipping back through the tissue. Meta-analysis has shown barbed suture can be used safely on the ovary after cystectomy without additional consequences on ovarian reserve.

**Methods**

The patient presented with a symptomatic 20 cm left multilocular dermoid cyst. After multilocular cystectomy, the ovary was sutured with V-Loc™ barbed suture for haemostasis and tissue approximation. Routine checks after specimen retrieval found unexpected slippage of the suture necessitating re-suturing with conventional Vicryl and intracorporeal knotting for hemostasis. The case was a successfully same day discharge without any 30-day complication however this raises important considerations regarding the reliability of this technology in such cases.

**Results**

Several hypothesis for the slippage include:

1. The ovarian tissue, being relatively delicate and variable in consistency due to the pathological changes from the cyst, might not provide optimal resistance against the barbs of the suture.
2. The initial integrity of the suture might have been compromised by internal pressures, such as those from a forming hematoma within the sutured cyst bed.

**Conclusions**

This case prompts a reconsideration of the conditions under which barbed sutures are most effective and safe, indicating the need for research and refined ovary specific product guidelines to avoid complications. It also underscores the need for rigorous checks after specimen retrieval and prior to surgical closure. Finally, it highlights the importance of having a contingency plan and the ability to adapt surgical strategies when technology fails.

<https://player.vimeo.com/video/945685533?autoplay=1>

**Laparoscopic excision of an interstitial ectopic pregnancy**

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**Background**

Background: A 34-year-old, para 2+1 (previous right tubal ectopic surgically managed with a laparoscopic right salpingectomy) presented to a District General Hospital with lower abdominal pain. Ultrasound scan failed to locate a pregnancy. Initial serum bHCG was 4274, which subsequently rose sub optimally to 5347. A diagnostic laparoscopy was performed, locating the pregnancy at the origin of the left Fallopian tube. This was resected laparoscopically.

**Methods**

Objectives: This video presentation aims to demonstrate suggested steps in laparoscopic management of an interstitial ectopic pregnancy.

**Results**

Surgical steps demonstrated:

This video demonstrates identification of an interstitial ectopic pregnancy using a systematic examination of the pelvis. A left interstitial ectopic pregnancy is demonstrated with a surgically absent contralateral tube. The left cornu is infiltrated with vasopressin to reduce blood loss. Haemostasis is further achieved by application of bipolar energy. A left salpingectomy is performed before the ectopic pregnancy is excised using Harmonic. The site of excision is over-sewn with two interrupted sutures and haemostasis achieved. Specimen retrieval is carried out using a laparoscopic retrieval bag.

**Conclusions**

Conclusion: Interstitial ectopic pregnancies are likely to be encountered by all gynaecologists throughout their career. This video shows advanced laparoscopic techniques in the management of such cases, and in doing so, demonstrates techniques which can be utilised to reduce blood loss and complications in such cases.

<https://player.vimeo.com/video/945806403?autoplay=1>

**Bulky womb, a surgeon's doom? A laparoscopic hysterectomy of a 2.7 kg uterus and excision of deep endometriosis**

*Florence Britton<sup>1</sup>, Benedetto Mondelli<sup>1</sup>, Michal Adamczyk<sup>1</sup>*

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**Background**

Hysterectomy is the most common gynaecological surgical procedure. One factor that must be considered when planning the surgical route, either open, vaginal, or laparoscopic, is the size of the uterus. Minimally invasive surgery has well recognised advantages including shorter hospital stay, less intraoperative blood loss and significantly lower rates of adverse events according to Clavien–Dindo classification. With the advancement in endoscopic techniques and expert centres, there is more evidence to support safe laparoscopic removal of large uteri >1kg [1].

**Methods**

We present a case of a 46-year-old presenting with pelvic pain and menorrhagia. MRI pelvis demonstrated a bulky enlarged uterus, bilateral endometriotic cysts and evidence of deep endometriosis with a 9mm rectovaginal nodule.

**Results**

She underwent a laparoscopic hysterectomy, bilateral salpingo-oophectomy and excision of endometriosis, including a rectal shave using the SOSURE technique. On entry, the large 2.7kg uterus took up majority of the pelvic cavity completely obscuring the surgical field. A methodical approach was taken to safely perform a hysterectomy, continually reassessing ways to improve surgical access. Total intra-operative blood loss was 300ml with an operative time of less than two hours.

**Conclusions**

This was a challenging procedure, not only due to the large uterus, but also concomitant deep endometriosis distorting the anatomy and surgical planes. Taking a systematic approach is crucial to effectively expose the vascular pedicles as well as other anatomical structures, minimising the risk of surgical complications and ensuring that all disease is recognised and safely removed.

[1] Uccella S et al. Laparoscopic Versus Open Hysterectomy for Benign Disease in Uteri Weighing >1 kg: A Retrospective Analysis on 258 Patients. J Minim Invasive Gynecol. 2018 Jan;25(1):62-69

<https://player.vimeo.com/video/945768779?autoplay=1>



**ABST-0257 - VP055**

**ePoster and Video Presentations**

### **Laparoscopic External Iliac Vein Injury and Primary Repair in a Case with Recurrent Ovarian Carcinoma**

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#### **Background**

Vascular injuries that occur during laparoscopy can be intimidating for the surgeon and morbid for the patient.

#### **Methods**

An experienced surgeon in repairing vascular injuries can manage major bleeding without switching to open surgery.

#### **Results**

A 35-year-old female patient with a history of open right salpingo-oophorectomy, pelvic para-aortic lymph node sampling, appendectomy, and omentectomy for stage 1a mucinous ovarian cystadenocarcinoma presented with a recurrent cystic mass in the right ovarian fossa one year after first operation. Following multidisciplinary tumour board evaluation, diagnostic laparoscopy was planned. During laparoscopy, a retroperitoneal cystic mass of approximately 11 cm was noticed at right ovarian fossa, intimately associated with the external iliac vein. During dissection of the mass, an inadvertent injury to the external iliac vein occurred.

After controlling the bleeding with a grasper, an ancillary trocar was introduced for repair of the vascular injury. Hemorrhage was controlled by suturing the external iliac vein with 5.0 prolene suture. To avoid narrowing the lumen, sutures were placed parallel along the long axis of the vessel.

#### **Conclusions**

In case of intraoperative major vascular bleeding during laparoscopy, our initial approach is to control the bleeding through compression with an atraumatic grasper. Next, we inform the anaesthesia team about the vascular injury, inquire about the availability of a central line, and request erythrocyte suspension for the operating room. Meanwhile, the operating room staff are also asked for preparations to switch to open surgery in case of failure in laparoscopic repair.

Practicing suturing in a laparoscopic training box and simulating vascular injuries in an animal laboratory may make it easier to cope with vascular injury in real surgery.

<https://player.vimeo.com/video/945770171?autoplay=1>

**ABST-0302 - VP067**

**ePoster and Video Presentations**

**A rare case of a large myometrial cyst**

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**Background**

Myometrial cysts are rare and usually benign. On imaging they are presenting as simple large cyst inside the myometrium. The differential diagnosis include: adenomyosis, necrotizing myoma, congenital cyst, mesothelial cyst and malignancy.

**Methods**

This video demonstrates a rare case of a large myometrial cyst.

**Results**

The video describes a 24-year-old women from Ghana, nulligravida, usually healthy, with past surgical history of cyst drainage. The patient presented to the emergency department for abdominal pain and imaging demonstrated a large cystic pelvic mass. She underwent vNOTES aspiration of the cyst and was referred to higher level of care by the minimally invasive gynaecology team due to suspected Mullarian anomaly versus hematometra. On physical examination the uterus was enlarged to 32 weeks of gestation. The MRI demonstrated a large septate cystic finding arising from the posterior myometrium of the uterus causing mass effect on the small bowel, bladder and the large vessels. She was recommended to undergo surgical management and was planned for hysteroscopy and robotic assisted diagnostic laparoscopy with possible myometrial cyst resection. The patient underwent uncomplicated myometrial cyst resection and on hysteroscopy a normal uterine cavity was observed with reassuring chromopertubation examination. She was discharged on post operative day four.

**Conclusions**

Myometrial cyst is a rare benign pathology that should be suspected when large simple mass is observed arising from the myometrium. MRI should be recommended to support the diagnosis. When fertility is desired, surgical resection of the cyst is feasible and should be recommended.

<https://player.vimeo.com/video/945859833?autoplay=1>

**Cervical pregnancy**

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**Background**

Cervical pregnancy is one of the most dangerous gynaecological pathologies, when the foetus is attached not in the uterine cavity, but in its cervix and refers to ectopic pregnancies. The most serious complication with such attachment of the foetus is massive bleeding, which can lead to removal of the uterus and even death.

**Methods**

The video abstract describes the operation of removing a cervical pregnancy at 8-9 weeks. The patient is a young girl, 32 years old, in her first marriage, who had been planning her first pregnancy for six months. Three months before pregnancy, a cervical polyp was removed in another clinic. The first stage was a hysteroscopy to clarify the location of the egg. The second stage was laparoscopy.

**Results**

The uterine arteries were isolated on both sides and temporarily clamped with soft vascular clamps. In order to reduce blood supply to the uterus, we compress the uterine arteries. Next, the bladder slab is opened, and the bladder is separated downward to free the area of the anterior part of the cervix. Notice how the anterior wall of the cervix bulges, bluish in colour. The dimensions of the formation described by ultrasound are 7.0\*6.0 cm with heterogeneous contents. Next, the formation is captured with rigid instruments and a monopolar hook is inserted into the abdominal cavity, with which the formation is opened. Elements of the fertilized egg and dark clots are visualized in the cavity of the formation. The cavity is excised with a monopolar instrument, the bed is cleaned, and all elements are placed in a sterile bag. A uterine manipulator is inserted into the cervical canal, and when the bed is cleaned, the cavity of the cervical canal is opened. The wound is sutured with a vicryl suture, controlling the cavity of the cervical canal using a manipulator.

**Conclusions**

Cervical pregnancy is one of the most difficult types of ectopic pregnancies. In the modern world, it is possible to save the uterus even with such a complex pathology.

<https://player.vimeo.com/video/944149684?autoplay=1>

### **Nerve-sparing deep endometriosis surgery using da Vinci SP**

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#### **Background**

Single-port laparoscopic surgery (SPLS) is useful approach in gynaecologic surgery because of its excellent cosmetic results and reduced postoperative pain, but it also has challenges, including reduced intracorporeal triangulation, conflicts with straight, rigid instruments, and limited range of motion. Recently, newer single-port robotic systems (da Vinci SP) have become available with articulating instruments and cameras that allow for intracorporeal triangulation, which may overcome some of weaknesses of conventional SPLS. Although such systems are believed to enable more complex surgeries than conventional SPLS, the scope of application remains unexplored. Therefore, the objective of this video is to demonstrate anatomical and technical highlights of complex intrapelvic procedure, nerve-sparing deep endometriosis surgery using this system.

#### **Methods**

Importantly, surgical steps were completely identical to conventional multiport surgery. This suggests that conventional laparoscopic or robotic skills are highly transferable to newer system. At the beginning of surgery, we created a 25 mm vertical incision at the umbilicus and then placed the access port. Three articulating instruments and camera were inserted through the port, and one assistant port was placed case by case.

#### **Results**

Nerve-sparing modified radical hysterectomy, rectal shaving, discoid resection, and segmental bowel resection were technically safe and feasible without complications. Newer systems offer several advantages, including high-resolution three-dimensional visualization, articulating instruments, and improved dexterity and range of motion. These advantages allow us to comfortably perform meticulous dissection and suturing even in challenging situations such as deep endometriosis. In addition, this system was also applicable to complex gynaecologic cancer surgeries such as total mesometrial resection and pelvic lymphadenectomy.

#### **Conclusions**

The newer single-port robotic system could provide the same quality of surgery as conventional multi-port laparoscopic and robotic platforms with cosmetic advantages and reduced postoperative pain for the treatment of complex pelvic pathologies. As new robots are coming one after another, surgeons should keep up with technological advances.

<https://player.vimeo.com/video/943452768?autoplay=1>

**Challenging Case of Deep Endometriosis with Significant Involvement of the Rectovaginal Septum: Resolution with Posterior Peritonectomy**

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**Background**

To present a laparoscopic resolution of significant deep endometriosis, involving the rectovaginal septum, bilateral parametria, vagina, and intestine.

Case report illustrated with video.

**Methods**

Female patient, 43 years old, with mild and intermittent chronic pelvic pain, associated with endo belly symptoms. Denies deep dyspareunia or alteration of intestinal and urinary habits. On the physical examination, a large painful retrocervical nodule was palpable, that extends between the parametria, more notably on the left side, with infiltration of the vaginal mucosa. MRI showed a A uterus of 117cc with focal adenomyosis in the anterior wall is present, associated with a retrocervical nodule measuring over 3cm, with infiltration of the paracervix and bilateral parametrium (mostly on the left side), with involvement of the ureters. Additionally, there is a vaginal lesion measuring 7x5mm with infiltration of the septum and pinching of the rectosigmoid at 9cm from the anal border.

**Results**

Laparoscopic excision of foci of deep endometriosis from the rectovaginal septum, bilateral parametria, vagina, associated with a posterior peritonectomy.

The surgery lasted 3h30, with minimal blood loss. The patient had good postoperative evolution, with no pain complaints in the postoperative period, and was discharged after 1 day.

**Conclusions**

The use of advanced techniques, such as parametrectomy and posterior peritonectomy, allowed for a more precise and safe dissection of the affected structures, contributing to a successful surgery and a favourable outcome. It is important to highlight the importance of anatomical knowledge and specialized surgical techniques for the treatment of deep endometriosis.

<https://player.vimeo.com/video/945404043?autoplay=1>

**Robotic management of difficult endometriosis using the DaVinci XI and SP**

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**Background**

To show the management of severe endometriosis using two kinds of surgical robots.

**Methods**

Three cases with severe and extensive deep endometriosis will be shown to explain the specific techniques used in each of the cases. Surgeries were performed with the Da Vinci Xi and the newly developed single-port Da Vinci SP system. The Xi was used when performing hysterectomy, DE resection, and low anterior resection for rectal endometriosis. The SP was used in lower anterior resection for rectal endometriosis, and ureteroneocystostomy for ureteral endometriosis. All patients gave their consent for their surgical footage and data to be used for research and educational purposes.

**Results**

No patients underwent blood transfusion, and the maximum operative time was 2hr 50mins. The post-operative courses of all patients were uneventful. Patients could ambulate and take a regular diet the day after surgery.

**Conclusions**

A variety of approaches using different surgical robots can be useful when dealing with difficult endometriosis cases. Both the DaVinci Xi and SP robots can be employed on a case-by-case basis and offer safe dissection and a good cosmetic result for patients.

<https://player.vimeo.com/video/945403104?autoplay=1>

**Sidewall endometriosis with ureteric infiltration - when to re-implant and when to stent during excision surgery**

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**Background**

Demonstrate several cases of endometriosis excision with known lateral infiltration of the uterosacral ligaments or pelvic sidewall affecting the ureters.

**Methods**

Ureteric infiltration accounts for 0.9-2.3% of urinary tract endometriosis <sup>1</sup>. Excision from the ureter is considered some of the most complex in endometriosis surgery<sup>2</sup>. Extrinsic/intrinsic disease is used within classification but may be considered more of a histological description. Ultimately, the decision for surgeons is whether it is possible to perform a ureterolysis alone, ureterolysis with stenting or re-implantation.

**Results**

The first case is a patient with obstructive uropathy being managed with bilateral ureteric stents. Preoperative planning had indicated the likely need for bilateral re-implantation, however, following ureterolysis the calibre and vascularisation of both ureters was such that the team was comfortable managing with a more conservative approach.

The second case had no known obstructive uropathy but did have a significant nodule arising from the right pelvic sidewall with lateral/posterior infiltration, encasing the anterior division of the internal iliac vessels, ureter and lumbosacral plexus. Following ureterolysis, there was disruption of the ureteric adventitia managed with ureteric stent insertion.

The third case had known right obstructive uropathy where unilateral ureteric re-implantation had been planned. Following insertion of ureteric stents and ureterolysis, the right ureter was disrupted by endometriosis; the decision was made to proceed with ureteric reimplantation.

**Conclusions**

Ureteric endometriosis necessitates comprehensive planning but also procedural flexibility. Multidisciplinary surgery offers a range of experience and skills to ensure the appropriate decision is made intra-operatively for the patient.

<https://player.vimeo.com/video/945735781?autoplay=1>

**ABST-0258 - VP056**

**ePoster and Video Presentations**

### **Peripheral Sciatic Nerve Neuropathy due to Endometriosis**

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#### **Background**

Our patient experienced a vaginal tear during her first intercourse and has been experiencing stabbing pain since then. Various pain relief techniques were attempted prior to our intervention, but none were successful. We performed an electromyography (EMG) and observed a conduction deficit in the bulbocavernosus muscle. With a preliminary diagnosis of sacral neuropathy, we proceeded with diagnostic dissection and a plan for resection in case of suspected involvement.

#### **Methods**

During our first look a retrocervical scar tissue and minimal fibrotic changes were observed. We started by entering the right retroperitoneum. We performed a detailed ureterolysis. During this process, we tried to minimize damage to the surrounding tissues as much as possible. We observe various degrees of fibrotic tissues and aberrant venous structures. Since we failed to identify the obturator nerve at its anticipated location enlarged our dissection area next to the external iliac artery. After the identification of the obturator structures, we started our search for the sciatic nerve. As we dissect through adhesions, aberrant venous plexuses over the sciatic nerve start to become apparent. The sciatic nerve and the endometriotic tissues are identified and illustrated for educational purposes. We aim to thoroughly clean these tissues and also to visualize the sacral nerves. Since there is not much involvement around it, we concluded the dissection. We also resected the scar tissue behind the cervix.

#### **Results**

70% pain relief was achieved in short term. Long term results will be presented live.

#### **Conclusions**

The cause of unexplained, well-localized pelvic pain may be nerve involvement due to endometriosis. Imaging methods may be insufficient in this regard, and in unresolved cases, diagnostic surgery should be the last resort.

<https://player.vimeo.com/video/945774573?autoplay=1>



**ABST-0277 - VP059**

**ePoster and Video Presentations**

### **Excision of Sciatic Nerve Endometriosis**

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#### **Background**

A 43-year-old patient presented to us with complaints of limping and pain while walking. There are no other notable features in her history. Physical examination revealed a retracted area and nodularity in the right posterior region. On MRI, we noticed a large nodule along the course of the sciatic nerve traversing from this area. Our primary goal is to achieve decompression of the nerve.

#### **Methods**

We started by entering the right retroperitoneum. We carefully performed ureterolysis and then proceeded to medialize the ureter to deepen further. After localization of obturator nerve, artery and vein we identified an aberrant venous plexus. Fibrotic tissues also began to increase at this level. This plexus likely provided vascularization to the nodule as well. After clipping this plexus, we retracted it out of our way to reach the sciatic nerve underneath. The nodule was identified and resected with dissections from multiple angles. After most of the nodule was removed, we continued with our resection. However, our main goal here was not just to leave zero disease, but actually to decompress the nerve. Because while trying to leave the nerve disease-free, we did not want to damage it. Finally, by removing the lesion on the sacrouterine ligament, we complete the surgery without complications.

#### **Results**

In short-term follow-ups, the patient does not report any complaints, and improvement in walking is observed. Long-term outcomes will be presented live.

#### **Conclusions**

The cause of unexplained pain and loss of muscle function may be nerve involvement due to endometriosis. Imaging methods may be helpful but not conclusive in this regard, and in unresolved cases, diagnostic surgery should be the last resort.

<https://player.vimeo.com/video/945822052?autoplay=1>

**Laparoscopic radical nephrectomy: a case of silent kidney loss in ureteral endometriosis**

*Luís Ferreira De Castro<sup>1</sup>, Miguel Marques-Monteiro<sup>2</sup>, Ana Andrade<sup>1</sup>, Miguel Silva Ramos<sup>2</sup>, Rosa Zulmira<sup>1</sup>, Helder Ferreira<sup>1</sup>*

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**Background**

Urinary tract endometriosis affects 1-5.5% of women with endometriosis, with the ureter being the second most common site involved, following the bladder. Ureteral endometriosis (UE) diagnosis is challenging, as the disease may be asymptomatic or present with non-specific symptoms such as dysmenorrhea or chronic pelvic pain. Without early diagnosis, progressive upper urinary tract obstruction can lead to a silent loss of kidney function.

**Methods**

This video presents the case of a 40-year-old woman, G1P1, who had recurrent urinary tract infections (UTI) and abnormal uterine bleeding (AUB). She was taking a combined oral contraceptive. Abdominopelvic imaging revealed grade IV right hydronephrosis, dilatation of the right ureter up to the adnexal region and thickening of the right uterosacral ligament, causing retraction of adjacent structures and stenosis of the ipsilateral ureter. Renal scintigraphy showed the kidney was non-functional, prompting a recommendation for a right radical nephrectomy.

**Results**

During laparoscopy, deep endometriosis (DE) of the right uterosacral ligament with extrinsic ureter involvement and upstream dilatation was observed. We first performed ureterolysis to free the ureter and pelvic wall from the fibrotic tissues caused by endometriosis. Then, a total hysterectomy with bilateral salpingectomy was conducted to treat AUB and prevent oncologic risk. Finally, we performed a right radical nephrectomy with the following steps: dissection of the right paracolic gutter and medialization of the ascending colon and duodenum; exposure of ovarian vessels, ureter and psoas muscle; dissection of renal hilum, followed by clipping and sectioning of the renal artery and vein; dissection of kidney's lateral attachments; and section of the ureter. Before closing the vaginal cuff, an endobag is introduced through the vagina, allowing extraction of the kidney via this natural orifice.

**Conclusions**

In suspected cases of DE/UE, abdominal ultrasound should be performed to evaluate the kidneys. Nephrectomy is indicated when renal function is <10-15% combined with recurrent UTI.

<https://player.vimeo.com/video/950895596?autoplay=1>

**Diaphragmatic endometriosis in association with pelvic disease: an often-hidden presentation and its laparoscopic approach**

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**Background**

In the presence of severe pelvic endometriosis, systematic diaphragmatic inspection is highly recommended. The simultaneous occurrence of diaphragmatic and pelvic endometriosis is around 50% and this number may be even higher, considering the deficient inspection of the diaphragm mainly caused by liver's interposition. In case of high suspicion of thoracic or diaphragmatic involvement, minimal invasive surgery techniques are the gold standard for both diagnosis and treatment.

**Methods**

This video consists of a step-by-step demonstration of the laparoscopic approach to a case of severe endometriosis, both with pelvic and diaphragmatic involvement.

**Results**

After entering the abdominal cavity, a frozen pelvis was observed, with adhesions involving the vesico-uterine fold, both adnexal regions and the pouch of Douglas. Extensive adhesiolysis was performed, as well as left endometriotic ovarian cyst drainage and total hysterectomy. Concerning the thoracic phase, the trocars placement was kept, but the patient's position was changed to left side decubitus and reverse Trendelenburg. The right diaphragm was infiltrated by multiple confluent nodules with transmural involvement, associated with hepato-diaphragmatic adhesions. Adhesiolysis and shaving to remove the superficial disease were performed. The transmural nodule was resected and chest cavity inspection was performed to exclude endometriotic involvement, followed by diaphragmatic closure. Evacuation of pneumothorax was obtained both by the use of the suction device and the performance of a Valsalva manoeuvre to inflate the lung, avoiding the need of chest drainage in the postoperative period. The overall operative time was 110 minutes, and no complications occurred.

**Conclusions**

Careful diaphragmatic inspection must be part of the approach to cases with severe pelvic endometriosis, even in asymptomatic women. Diaphragmatic and thoracic treatment must be multidisciplinary with the active involvement of gynaecologists, general surgeons, anaesthesiologists and eventually thoracic surgeons. Standardization of laparoscopic diaphragmatic endometriosis resection could make the procedure easier and safer to perform.

<https://player.vimeo.com/video/951502612?autoplay=1>

**Robotic-Assisted Excision of Diffuse Adenomyosis**

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**Background**

Video footage illustrating the surgical steps of an excisional approach for large posterior wall diffuse adenomyosis. A 38-year-old patient with a history of chronic pelvic pain and infertility. She underwent two unsuccessful in vitro fertilization (IVF) cycles and opted for surgical management of adenomyosis. A preoperative MRI scan identified diffuse adenomyosis in the posterior wall of the uterus, measuring 8.7 x 6.0 cm, with a thickened junctional zone (>12 mm).

**Methods**

Robotic-assisted laparoscopic excision of diffuse posterior wall adenomyosis was performed. This involved applying vascular bulldog clamps to temporarily occlude the uterine blood supply and injecting diluted vasopressin for vasoconstriction. An ipsilateral myometrial suturing technique sutured each subserosal myometrium to the ipsilateral central myometrium, followed by a baseball stitch to approximate the serosa.

**Results**

The patient was discharged on the same day of surgery with no complications.

**Conclusions**

In selected patients, surgical management of diffuse adenomyosis may be indicated, especially in cases with unsuccessful medical management or repeated IVF failures. The advantages of the robotic platform ensure complete excision of the disease and facilitation of appropriate surgical techniques for adequate uterine wall reconstruction.

<https://player.vimeo.com/video/951359797?autoplay=1>

**Deep endometriosis: beware of the tip of the iceberg**

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**Background**

Deep endometriosis (DE), defined as the involvement of endometrial-like tissue to a depth of more than 5 mm below the peritoneal surface, affects 20% of endometriosis patients and can involve several retroperitoneal structures, causing a variety of debilitating symptoms. Although medication therapy is considered the first-line treatment, surgical intervention often becomes the definitive solution. Traditionally, the combination of laparoscopy and histopathological examination has been considered the gold standard for diagnosing the disease. However, recent guidelines have been extended to include imaging techniques, such as ultrasound and magnetic resonance, as reliable diagnostic tools. This is particularly relevant for deep endometriosis, as retroperitoneal lesions can easily be missed or underestimated during diagnostic laparoscopy.

The aim of this video is to demonstrate that, especially in cases of DE, small peritoneal lesions observed during laparoscopy can reveal large deep infiltrating retroperitoneal nodules, which often could remain undetected without imaging assessment or proper surgical dissection, posing the risk of incomplete treatment.

**Methods**

Video presentation of MRI and ultrasound images and initial laparoscopic findings of three different cases of deep endometriosis will be presented, including the final views following the dissection and excision of the nodules.

**Results**

This video demonstrates that diagnostic laparoscopy could potentially miss deep infiltrating disease and that imaging studies could be an asset for surgeons operating these cases.

**Conclusions**

In patients with suspected DE, an appropriate preoperative clinical and imaging evaluation could prevent surgeons from overlooking deep endometriosis. During diagnostic laparoscopy, awareness of the potential for small peritoneal lesions to conceal large occult nodules is essential for achieving thoroughness in treatment. As surgery for deep endometriosis requires expert surgeons and multidisciplinary management, it is important to have a reliable preoperative assessment. This ensures adequate preparation and the development of a tailored surgical plan that maintains radicality while minimizing the risk of complications.

<https://player.vimeo.com/video/951404380?autoplay=1>

**Isolated ureteral endometriosis presenting with severe unilateral ureterohydronephrosis and renal function loss**

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**Background**

The prevalence of ureteral endometriosis (UE) varies from 0.01% to 1.7% in women with endometriosis. Commonly UE is unilateral, with a left predisposition, and it usually affects the distal third segment of the ureter.

UE is frequently associated with ovarian endometriomas and other deep infiltrating endometriosis implants. Isolated UE lesions are rare.

The involvement of the ureter by endometriosis is often asymptomatic or leads to non-specific symptoms. When the diagnosis is delayed, UE may lead to persistent hydronephrosis and eventually loss of renal function.

The surgical treatment of UE aims to relieve ureteral obstruction and avoid disease recurrence. It includes conservative ureterolysis or radical approaches, such as ureterectomy with end-to-end anastomosis or ureteroneocystostomy. In case of loss of renal function nephroureterectomy is necessary.

**Methods**

We present the case of a 43-year-old lady who consulted in the emergency room due to pain in her left flank. Abdominal CT revealed severe left ureterohydronephrosis and ureteral obstruction at distal segment, and a gynaecological origin was suspected.

Preoperative study included physical examination, accurate pelvic ultrasound and MRI, leading to diagnostic suspicion of isolated UE. No other endometriotic lesions were diagnosed preoperatively. Isotopic renogram determined the total loss of left renal function. A multidisciplinary surgery was scheduled with the Urology Department.

**Results**

We show in our video the laparoscopic nephrectomy steps, the laparoscopic approach to the parametrium and the hysterectomy.

The pathological study confirmed the presence of extrinsic foci of endometriosis causing ureteral stenosis.

**Conclusions**

Ureteral endometriosis and parametrial involvement represent a great challenge for the surgeon.

As in all cases of deep endometriosis surgery, precise mapping of the disease before surgery is mandatory and will be decisive in scheduling surgical times and surgical teams.

Ultrasound examination of women with endometriosis and pelvic pain should always include renal pelvis examination to rule out silent renal involvement.

<https://player.vimeo.com/video/951473056?autoplay=1>

**A case of obstructed defecation syndrome diagnosed by pelvic floor ultrasonography and laparoscopic douglas obliteration**

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**Background**

Almost half of people with chronic constipation, especially women, have a condition called obstructed defecation (O.D.) syndrome. It's important to prioritize minimally invasive approaches for diagnosis and treatment. The purpose of this case is to show the improvement in Douglas obliteration with McCall culdoplasty in a patient diagnosed with enterocele and obstructed defecation syndrome by pelvic floor ultrasound (PFU).

**Methods**

A 46-year-old multiparous patient with a history of four vaginal deliveries (P4), BMI of 26 kg/m<sup>2</sup>, presented to our institution with treatment-resistant abnormal uterine bleeding (AUB) and difficulty in defecation. She had been experiencing treatment-resistant bleeding for the last 6 months and had received blood transfusions twice during this period, with a haemoglobin level of 6.3. Ultrasonography revealed an adenomyotic uterus and a 5 cm type 3-4 fibroid. The AUB was associated with adenomyosis and myoma uteri. Preoperative vaginal examination showed no prolapse or incontinence during maximum Valsalva. The POP-Q staging was Ba-2, C-2, and Bp+1. Preoperative PFU revealed an enterocele descending below the symphysis pubis and O.D., which was found to compress the rectal ampulla and block defecation without causing anatomical or functional complaints. No malignancy was detected on preoperative endometrial sampling. Laparoscopic vaginal hysterectomy (LVH) and a high McCall plasty were performed to obliterate the Douglas pouch for the symptoms. After the LVH, the uterosacral ligaments (USLs) were visualized, and a permanent 3-0 prolene suture was passed through the posterior cuff and the right USL as high as possible. A second suture was placed 1 cm above and parallel to the previous stitch. These sutures were kept being tied after placing the external suture. A 2-0 vicryl suture was passed through the vaginal lumen, just below the centre of the posterior cuff, through the peritoneum and left USL. First, the internal McCall sutures were tied, and then the external suture was tied. The cuff was then completely closed.

**Results**

Following the surgery, the patient's symptoms of AUB and O.D. improved immediately.

**Conclusions**

It's important to note that O.D can be diagnosed with PFU. Treatment such as Douglas obliteration can be achieved with McCall plasty to relieve the current symptoms of the patients.

<https://player.vimeo.com/video/952024480?autoplay=1>

**Two separate bowel endometriosis nodules were excised in one session**

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**Background**

Our patient presented with complaints of dysmenorrhea, dyspareunia, and dyschezia. She has no history of major surgery other than appendectomy and cystectomy. During physical examination, upon vaginal examination, a nodularity was palpated at the level of the right sacrouterine ligament, fixing the rectum as well. On ultrasound examination, it was observed that both ovaries were adherent to each other at the posterior aspect, and there was a 4 cm intramural spread in the rectum suspected to be endometriotic. When we performed an MRI, we were able to identify an additional nodule at the junction of the sigmoid colon and rectum, which was not visible on ultrasound.

**Methods**

Upon our initial assessment, we observed that the nodule identified on MRI and the complete fixation of the Douglas pouch. Procedure: After bilateral ureterolysis, medial pararectal spaces are developed. Then mobilization of the anterior side of rectum is dissected from uterus to achieve partial mobilization. After complete mobilization of the Douglas pouch, a low anterior resection was performed. An external reanastomosis was performed and no leakage was seen in bubble test.

**Results**

No complications occurred. All complaints were resolved significantly in short-term. Long-term results will be shared live.

**Conclusions**

A patient may have two unrelated endometriotic nodules in the intestines simultaneously, and these two can be operated on with different techniques during the same session.

<https://player.vimeo.com/video/945749150?autoplay=1>



## Laparoscopic Surgery For Abdominal Wall Endometriosis: A Demonstration Of Patient Selection And Surgical Management

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### Background

Abdominal wall endometriosis (AWE), characterized by the presence of endometrial tissue in the abdominal wall, is traditionally treated with total surgical excision using a laparotomic approach. However, a minimally invasive approach can be utilized for excision, provided proper patient selection is made. We aimed to share a narrated video that demonstrates the preoperative diagnosis, eligibility assessment for minimally invasive excision, and laparoscopic treatment of AWE.

### Methods

A 40-year-old G1 P1 patient presented with a mass on her abdominal wall that caused swelling and pain during menstruation. Ultrasound examination revealed a heterogeneous vascular mass inside the rectus muscle fibres, and the anterior fascia of the rectus muscle was intact. Given her history of caesarean section and the cyclic variation of her symptoms with her menstrual cycle, she was diagnosed with AWE and scheduled for surgical excision. The laparoscopic route was chosen as the rectus fascia appeared intact on the ultrasound. After the standard laparoscopic preparations and entry, the lesion was evaluated, and its borders were identified. Total excision was achieved using monopolar and bipolar energy. As predicted with ultrasonography, the fascia remained intact after the excision; therefore, no repair was needed.

### Results

The lesion was excised successfully. The postoperative period was uneventful, and she was discharged on the first postoperative day. The histopathological examination confirmed the diagnosis.

### Conclusions

Laparoscopic excision of abdominal wall endometriosis can be used in selected cases - though not for all - as a successful treatment option that provides the advantages of minimally invasive surgery. Given the rising rates of caesarean section and the subsequent rise of AWE prevalence, it is necessary to manage these cases with minimally invasive surgery and make use of the advantages of these approaches whenever possible.

<https://player.vimeo.com/video/945883869?autoplay=1>

### Partial cystectomy in a case of bladder endometriosis

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#### Background

Endometriosis is a common disease that affects one in 10 women and can cause dysmenorrhoea, chronic pelvic pain and infertility. Although it is common, the average time to diagnosis in endometriosis is 7 years. Endometrial lesions may be present in the urinary tract in 1-2% of women with endometriosis. Diagnosis of bladder endometriosis may be difficult due to nonspecific symptoms such as frequent urination, pelvic pain, dysuria.

#### Methods

A 48-year-old nulliparous female patient presented to our clinic with pelvic pain (15 days per month), haematuria, dysmenorrhoea and postcoital bleeding. She had 2 previous myomectomy operations (2009, 2015). Ultrasonography revealed diffuse adenomyosis in the uterus, 67\*51 mm endometrioma in the right ovary, hydrosalphenx, fibrotic implant adherent to the colon; 32\*13 mm endometriotic nodule in the bladder, 4 cm bilobule cyst in the left ovary. Tumour markers were Ca 125: 114 U/ml, Ca 19-9: 124 U/ml

#### Results

Laparoscopic hysterectomy, bilateral salpingoopherectomy and bladder nodule excision were planned. Bladder was entered by cystoscopy before laparoscopy. A 3 cm endometriotic nodule protruding from the bladder dome was observed. Bilateral ureteral orifices were visualised, and a ureteral catheter was placed. The bladder was entered during bladder dissection for hysterectomy preparation. Then a 3 cm nodule was excised, and the bladder was double sutured with no 3-0 v lock. Laparoscopic hysterectomy and bilateral salpingoopherectomy were performed. The patient was discharged on postop day 2 and foley catheter was withdrawn on postop day 7.

#### Conclusions

Endometriosis should be kept in mind in patients with urinary symptoms accompanying dysmenorrhoea. Ultrasonography and cystoscopy are helpful in the diagnosis of bladder endometriosis. The location and size of the lesion may make organ-sparing surgery challenging and may result in decreased bladder capacity in the long term

<https://player.vimeo.com/video/945908686?autoplay=1>

**An advanced stage endometriosis case: Using vaginal and rectal probe at laparoscopic hysterectomy and bilateral salpingo-oophorectomy operation**

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**Background**

Endometriosis is a chronic gynaecological disorder characterized by the presence of endometrial-like tissue outside the uterine cavity, which leads to a chronic inflammatory response. Despite its prevalence among women of reproductive age, the pathophysiology of endometriosis remains poorly understood. This condition is commonly associated with pelvic pain, dysmenorrhea, and infertility, significantly impacting the quality of life. The aetiology is believed to involve a combination of genetic, immunological, and environmental factors. Diagnosis is challenging, often delayed due to nonspecific symptoms and is predominantly confirmed through laparoscopy and histological examination.

Current management strategies focus on alleviating symptoms and include pharmacological treatments such as nonsteroidal anti-inflammatory drugs (NSAIDs), hormonal therapies, and surgical options. However, these treatments often do not provide a cure and are associated with recurrent symptoms and side effects.

**Methods**

Our case (S.C. 46 y.o. female); was presented to our clinic with chronic pelvic pain and dyspareunia. As a result of the imaging, endometriomas in both ovaries and deep infiltrative endometriosis in the rectovaginal septum were observed.

**Results**

Laparoscopic hysterectomy and bilateral salpingo-oophorectomy procedure were performed. Advanced endometriosis was observed in the exploration performed after abdominal access and pneumoperitoneum. The area between the rectum and vagina was dissected under the guidance of rectal and vaginal probes. Both ureters were carefully separated from the surrounding tissues. The implants on the rectum were removed through the serosa. Both infundibulopelvic ligaments were ligated and cut. After both uterine arteries were ligated and the bladder was dissected, the uterus and adnexa were removed through a vaginal circular incision with the help of an intrauterine manipulator and a vaginal probe. Then the cuff was sutured.

**Conclusions**

The case is important in terms of revealing the anatomy in advanced endometriosis surgery and facilitating dissection plans with the help of rectal and vaginal probes.

<https://player.vimeo.com/video/945961103?autoplay=1>

**ABST-0599 - VP129**  
**ePoster and Video Presentations**

**Bowel endometriosis - a difficult case to "shave"**

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**Background**

Endometriosis is a chronic painful disease marked by the presence of endometrial-like tissue outside of the uterus that can recur after surgery.

**Methods**

We present a case of recurrence of painful symptoms after total laparoscopic hysterectomy on a patient with multiple previous abdominal surgeries. The patient complained about recurrence of intense chronic pelvic pain and painful intercourse and was unresponsive to medication. The latest magnetic resonance imaging (MRI) confirmed she had two endometriosis nodules on the vaginal cuff and multiple adhesions.

**Results**

During laparoscopy it was performed laborious adhesiolysis, left ureterolysis, right salpingectomy with excision of two nodules from the bladder wall and the vaginal cuff. During adhesiolysis, a third nodule on the sigmoid wall was discovered and successfully removed by strenuous shaving with no complications associated.

**Conclusions**

The authors present a video of the case.

<https://player.vimeo.com/video/951448946?autoplay=1>

**A very rare case of lung endometriosis**

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**Background**

A rare form of endometriosis outside the pelvic cavity is lung endometriosis. The majority of patients will present with only generic symptoms, including recurrent hemoptysis, chest pain, dyspnea, spontaneous pneumothorax, and hemopneumothorax, which often leads to misdiagnosis. Less than 20 case reports to date on lung endometriosis exist, making this a multidisciplinary challenge.

**Methods**

**OBJECTIVE:** To describe a very rare case of lung endometriosis and its intraoperative findings.

**Results**

This case describes a 40-year-old nulliparous patient with a history of anaemia due to abundant menses and deep dyspareunia. A complete diagnostic work-up was initiated after the onset of catamenial haemothorax and scapulodynia, with a cross-sectional imaging study revealing lung and pleural lesions suspicious of endometriosis and an extensive bilateral pleural effusion. The patient underwent a single-port video-assisted thoracoscopy which revealed multiple lesions of superficial pleural endometriosis, as well as thoracic adhesions between the pleura and the left lung. Pleural effusion and multiple endometriosis nodules on the surface of the lung parenchyma were also present. In this procedure, lysis of pulmonary adhesions was performed, as well as an atypical resection of a suspicious area of the anterior segment of the left upper lobe, with the aid of a 60-mm linear stapler. The remaining suspicious areas were removed with the aid of bipolar energy. At the end of the procedure, pleurodesis was performed. Our patient had a complete remission of the symptoms after surgery and there was no recurrence of the thoracic disease so far.

**Conclusions**

As there is variability in its presentation, a high level of clinical suspicion is necessary to provide a timely diagnosis and reduce the likelihood of disease progression. In cases of symptomatic thoracic endometriosis in which hormonal suppression has been exhausted or contraindicated, definitive surgical management is ideally performed using a multidisciplinary approach.

<https://player.vimeo.com/video/951515296?autoplay=1>

**Seeing Beyond: Indocyanine Green Assisted Laparoscopy for Deep Endometriosis**

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**Background**

In this video presentation, we demonstrate the utility of indocyanine fluorescence imaging in enhancing laparoscopic precision for the management of deep endometriosis.

**Methods**

A 22-year-old virgin patient presents with complaints of dysmenorrhea and has sought emergency care during menstrual periods over the past three months. Her CA-125 level was measured at 3825 U/mL. Ultrasonography revealed a 6 cm endometrioma in the left ovary and deep endometriotic nodules at both side of uterosacral region. We were unable to utilize a uterine manipulator. Dissection exposure was facilitated using a rectal probe. Preoperatively, cystoscopy was performed to catheterize both ureters with a 6 Fr catheter, followed by the administration of indocyanine green.

**Results**

The video abstract demonstrated intraureteral ICG, highlighting the utility of ureteral fluorescence for guidance during endometriosis surgery. Real-time visualization of the ureter has facilitated dissection, making it both easier and safer.

**Conclusions**

Intraoperative ureteral injury is a preventable complication. The ability to visualize critical structures and vascularity such as the ureters, in real-time enhances the safety of the procedure, reducing the likelihood of iatrogenic injury and postoperative complications. As we continue to harness the power of technology in gynaecological surgery, ICG-guided laparoscopy stands as a beacon of hope for women suffering from this challenging condition. Further investigation is essential to substantiate its efficacy.

<https://player.vimeo.com/video/951537264?autoplay=1>

**Transvaginal ethanol sclerotherapy for IVF preparation in bilateral kissing endometrioma**

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**Background**

Endometriosis is a common gynaecologic condition affecting 6 to 10% of reproductive-age women. Endometrioma occur in 17 to 44% of patients with endometriosis, who generally complain about pelvic pain or infertility. The conventional treatment of ovarian endometrioma, has been surgery and the most common surgical method is laparoscopic cystectomy. However, the ovarian reserve can be damaged. Ethanol sclerotherapy may be offered to patients with endometrioma, to preserve ovarian reserve. We will explain the technique of the ethanol sclerotherapy to a patient with bilateral kissing endometrioma.

**Methods**

Step-by-step video demonstration of the technique. Local institutional review board approval was not required for this video because the patients were not identified. The procedure was performed at a tertiary center. The patient was a symptomatic woman with bilateral endometrioma >70 mm who wanted to become pregnant.

Required materials

1. Oocyte pick up Needle 17-gauge 35 cm single lumen,
2. 96% ethanol solution
3. Endocavitary ultrasound guide for the needle,
4. Calibrated and high-volume injector,
5. Local anaesthetic is not necessary for office applications, if the procedure will be performed with sedation
6. sterile gloves,
7. 10% povidone iodine

This patient was evaluated according to the IOTA Adnexal model. The presence of a malignant tumour should be carefully evaluated before surgery. The patient had two bilateral endometriomas with a diameter of approximately 90 mm.

The first step in ethanol sclerotherapy for endometrioma, the procedure area is sterilized with povidone iodine. After, with the help of transvaginal ultrasound, the cyst is entered vaginally with an aspiration needle and held steady, by an assistant while the syringe is attached. The contents of the endometrioma are slowly and carefully aspirated. In some cases, aspiration may be challenging, require patience. Sometimes, if the needle becomes clogged, you may need to flush it with saline solution. This continues until all the contents are fully emptied, It is important to keep the movement of the needle minimal, and gentle without removing it from the cyst. Repeated flushing with saline is performed. The process continues until the colour of the aspiration content becomes apparent. Then, ethanol is injected into the cyst and waited for 10 minutes. We predict that, the success rates of procedures terminated early will be lower. The volume of ethanol administered should be, 60 percent of the volume of endometrioma aspirated. At the end of the period, the alcohol is aspirated, and the process is terminated.

**Results**

In this video, the methods of ethanol sclerotherapy for IVF preparation in a patient with bilateral endometrioma was explained step by step.

**Conclusions**

Vaginal approach can be used for single or bilateral endometrioma. Compared to cystectomy, sclerotherapy is a preferable method in patients, who plan to conceive with lower complication rates, less hospital stay, faster recovery period, similar recurrence rates.

<https://player.vimeo.com/video/951593912?autoplay=1>

**Managing the Rare and the Common: Excision of Benign Multicystic Peritoneal Mesothelioma and Deep Infiltrating Endometriosis with bowel involvement**

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**Background**

Benign multicystic peritoneal mesothelioma (BMPM) is a rare peritoneal tumour with approximately 200 reported cases. It is often associated with endometriosis, pelvic inflammation, or previous abdominal surgery. Diagnosis is confirmed through histological examination, and treatment generally involves complete surgical resection, although recurrence rates are high. Notably, there are 7 documented cases of BMPM co-existing with endometriosis on histology.

**Methods**

We present the case of a 25-year-old nulliparous woman whose main symptoms included deep dyspareunia, dyschezia, and occasional rectal bleeding. She had a Mirena coil in situ. Examination revealed restricted uterine mobility and a rectovaginal nodule.

MRI showed multiple clear cystic structures in the pelvis, alongside adenomyosis, bilateral endometriomas, and adhesions between the posterior uterus and rectosigmoid junction. Following a multidisciplinary team (MDT) discussion, a diagnostic laparoscopy was planned. Intraoperatively, haemosiderin deposits were observed throughout the pelvis, peritoneum of the upper abdomen, and diaphragm. Bilateral endometriomas measuring 10 cm and 6 cm were identified, along with multiple fluid-filled cystic structures in the pelvis and on the anterior abdominal wall. Adhesiolysis was performed, endometriomas were drained, and many peritoneal cysts were removed.

Histopathology confirmed BMPM, positive for AE1/3 and Calretinin. Tumour markers were: CA125 at 105, CEA <0.1, AFP 3.9. The patient was referred to a mesothelioma malignancy institute and advised to undergo definitive surgery by the local endometriosis team.

A joint surgical procedure with colorectal team involved laparoscopic excision of peritoneal cysts, cystectomy for bilateral endometriomas, and excision of deep infiltrating endometriosis with bowel shaving. Histopathology revealed benign mesothelial cysts with foci of endometriosis.

**Results**

The patient made good recovery and is planned for long-term follow-up with the mesothelioma malignancy institute due to the high recurrence rate of up to 50%.

**Conclusions**

Multidisciplinary team (MDT) involvement is crucial in managing complex and rare cases such as BMPM with co-existing endometriosis

<https://player.vimeo.com/video/951684548?autoplay=1>



**ABST-0699 - VP155**

**ePoster and Video Presentations**

### **Excision of a Deep Infiltrating Endometriosis Nodule of Rectum**

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#### **Background**

The patient had previously undergone a diagnostic laparotomy at a different centre for similar symptoms, which led to abscess formation and multiple drainage procedures. Upon examination, a rectal nodule, 2 cm in length, was identified. A hysterectomy followed by excision of the rectal nodule was planned for a definitive solution.

#### **Methods**

Numerous abdominal adhesions were identified, and retroperitoneal access was achieved bilaterally. Adhesions between the rectum and the uterus were separated to free the rectum. During adhesiolysis, an abscess formation was encountered and drained, followed by excision of the abscess with surrounding tissues. A routine hysterectomy was performed, followed by rectal nodule excision using the shaving technique. Due to a full-thickness opening of the mucosa during shaving, a three-layer bowel repair was performed.

#### **Results**

The postoperative course was uneventful with no complications observed. Long-term results will be shared live.

#### **Conclusions**

No matter how thorough the preoperative preparation, intraoperative changes can always occur, and the surgeon must have contingency plans ready in such situations.

<https://player.vimeo.com/video/952212260?autoplay=1>

### The 'Mickey Mouse head'-shaped uterus: a rare case of primary infertility and failed implantation

*Evy Gillet<sup>1,2</sup>, Elie Finianos<sup>2</sup>, Ruth Duttmann<sup>2</sup>, Rudi Campo<sup>1</sup>, Stavros Karampelas<sup>1,2</sup>*

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#### Background

To report a case and minimal invasive surgical approach of a rare congenital uterine malformation in a patient with recurrent implantation failure.

#### Methods

This case involves a 35-year-old woman with a history of primary infertility, referred to our centre after failure of multiple implantation attempts. The uterine assessment by ultrasound, hysteroscopy and MRI showed a dysmorphic uterine cavity U1c according to ESGE/ESHRE classification and the presence of bilateral accessory cystic structures resembling a 'Mickey Mouse head'-shaped uterus. Furthermore, ambulant hysteroscopy revealed an evacuation of chocolate-coloured discharge from the accessory cavity into the main cavity, probably responsible for a toxic environment for implantation. A minimal invasive surgical approach is presented with a meticulous laparoscopic dissection and removal of both accessory cystic structures, i.e. the Mickey Mouse ears. A hysteroscopic metroplasty was performed in a second time to optimize the uterine cavity.

#### Results

The final post-operative assessment showed a satisfying restauration of the uterine anatomy. The pathological examination revealed that both cystic structures consisted of smooth muscle on the outside and endometrium on the inside, rather in favour of a bilateral accessory uterine cavity, and not a proximal dilatation of the Fallopian tube as was initially thought. The patient is currently enrolled in an IVF program and waiting for embryo transfer, hoping for a positive outcome.

#### Conclusions

To our knowledge, this is the first reported video article of a remodelled 'Mickey Mouse head'-shaped uterine malformation by minimal invasive surgery. We hope to report on a good reproductive outcome in the coming months.

<https://player.vimeo.com/video/952074005?autoplay=1>

**Fertility sparing treatment. Myomectomy with anterior wall reconstruction and uterine cavity repair in post-surgery microhysteroscopy procedures.**

*Dominika Jasińska-Stasiaczek<sup>1</sup>, Jakub Woźniak<sup>1</sup>, Mariusz Wójtowicz<sup>1</sup>*  
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**Background**

Uterine myomas stand as the predominant benign growths within the female reproductive system, affecting 25% to 30% of women at reproductive age. The correlation between fibroids and infertility remains a debated topic. Unfortunately, the optimal treatment approaches remain unsettled, warranting additional investigation. For individuals enduring prolonged struggles with conception, particularly those diagnosed with submucosal myomas and devoid of other infertility factors, addressing fibroids may prove pivotal in management strategies.

**Methods**

We describe a case of a 32yo female with 2 years history of failed conception. She was diagnosed with huge myoma (14 x 12 x 10cm) of anterior uterine wall, FIGO 3-6. There were no concomitant diseases and normal results of the partner's semen analysis. Due to the location of the fibroid, its proximity to the uterine cavity and uterine vessels and the necessity of anterior uterine wall reconstruction the patient was scheduled for laparotomy. The wall doubling technique was used, and the uterine muscle was sutured in three layers. Microhysteroscopy procedures were used to evaluate the uterine cavity. Finally, the patient underwent hysterosalpingography.

**Results**

The wall doubling technique during myomectomy allowed for reconstruction of the uterine wall, what was checked in post-surgery ultrasound exam. The microhysteroscopy in local anaesthesia of cervix (hystero-block) helped to avoid unnecessary damage of uterine wall and junctional zone. The use of hyaluronic acid might be the additional protective factor of adhesion recurrence and a second-look microhysteroscopy showed a normal uterine cavity. A proper patency of both fallopian tubes was confirmed in hysterosalpingography one month after the second-look microhysteroscopy. Uninterrupted pregnancy followed.

**Conclusions**

The surgical technique presented herein combined with the use of modern video-guided procedures, may help maximize the benefits of the treatment of uterine myomas by restoring fertility.

<https://player.vimeo.com/video/942157103?autoplay=1>

**The Adhesion Dilemma: Temporary Tubal Suspension as a Surgical Solution**

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**Background**

The laparoscopic excision of endometriotic lesions and lysis of adhesions is the most effective treatment for pelvic pain and infertility associated with endometriosis. However, it is important to note that there is a significant risk of postoperative adhesion formation associated with this procedure. There are multiple techniques that have been described to temporarily suspend the ovaries to the abdominal wall using absorbable and non-absorbable suture materials. These techniques aim to displace the ovaries during peritoneal healing, thereby reducing the risk of postoperative adhesion formation. However, there is still a lack of understanding about techniques that can minimize the occurrence or recurrence of tubal adhesion to the ovary or lateral abdominopelvic wall, which can further compromise fertility in certain cases. The objective of this presentation is to describe a technique of temporary suspension of the fallopian tube to decrease the risk of postoperative adhesions after salpingolysis in patients with stage III/IV endometriosis.

**Methods**

In this case study, we describe the treatment of a 36-year-old nulligravid with suspected infertility due to stage IV endometriosis. The patient underwent extensive lysis of adhesions and partial resection of a left endometrioma. Given the extensive salpingolysis from the left ovary and left pelvic wall and the extensive ovarian injury during cystectomy and reconstruction, we employed a technique involving temporary suspension of the ampullar portion of the fallopian tube towards the abdominal wall. This was achieved using 3-0 absorbable suture material, followed by hydro flotation.

**Results**

Following the temporary suspension of the fallopian tube using the described technique, the patient exhibited no immediate or delayed postoperative complications, including bowel obstruction, infection, hematoma formation, or increased post-operative pain. Notably, the patient opted for natural conception post-surgery and successfully conceived within two months. Currently, she is 20 weeks pregnant, indicating the possibility of preventing the recurrence of adhesions while using this technique.

**Conclusions**

Our study highlights the potential efficacy of temporary suspension of the fallopian tube as a means to address postoperative adhesion formation and improve outcomes in patients with endometriosis-related infertility. The described technique offers a simple, safe, and easily implementable approach with promising initial results. However, further investigation through larger-scale studies with longer follow-up periods is necessary to fully evaluate its benefits and confirm its role in clinical practice. Nonetheless, our findings underscore the importance of understanding the different adhesion patterns to explore innovative surgical techniques to optimize outcomes for patients with stage III/IV endometriosis.

<https://player.vimeo.com/video/945399882?autoplay=1>

**It Is Not Static, It's Moving!**

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**Background**

Peristalsis is a type of involuntary muscle movement that occurs in hollow organs such as intestinal Peristalsis, ureteric peristalsis and tubal peristalsis

Fallopian tubes have cyclic peristaltic contractions and interior surface is lined with a layer of mucous membrane, crowded with secretory and ciliated cells of different heights

Each fallopian tube is of 10 cm to 13 cm in length and 0.5 cm to 1.2 cm in diameter. Secretory cells pour out a small volume of fallopian tubal fluid and ciliated cells have hairlike structures in which each cilium is about 10 µm long and 0.25 µm in diameter.

The walls of the uterine tubes consist of three main layers: mucosa muscularis serosa

The muscularis is arranged into two layers: an inner circular layer and an outer longitudinal layer. Innervation of these layers results in peristaltic contractions of the uterine tubes, which assist in propulsion of the fertilized ovum.

Cyclic peristaltic contractions of the tube surface generate a sinusoidal wave, and the swaying motions of the cilia tips generate a metachronal wave

Both the sinusoidal wave and metachronal wave are in continuum and merge together to generate a composite wave, called travelling wave

**Methods**

we present a series of videos of the observed tubal peristaltic movement, and a discussion of factors affecting it, and its potential role in infertility

**Results**

, the cyclic peristaltic contractions and the action of cilia tips, together play an important role in transporting the developing embryo from ampulla to the intramural of the fallopian tube The developing embryo then enters into the non-pregnant uterus where only peristaltic contractions of the uterus are present to provide an assistance for implantation during the early processes of human reproduction

Numerous substances were found to affect motility of the tubes.

Catecholamines cause both relaxation and contraction isolated Fallopian tubes.

It depends on type of receptor they bind for. Acetylcholine, neurotensin and oxytocin stimulate motility of the tubes, while gamma-aminobutyric acid, vasoactive intestinal peptide and substance P have an inhibitory role.

**Conclusions**

We frequently notice numerous cases with tubal peristalsis

The whole sequence of events in regulation of oviducts motility is still unknown so further investigation in the field is required.

<https://player.vimeo.com/video/945462358?autoplay=1>

**ABST-0370 - VP050**

**ePoster and Video Presentations**

**Mastering Robotic Myomectomy: Vaginal morcellation with ExCite technique**

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**Background**

32-year-old woman, without comorbidities, nulliparous, with reproductive desire. Asymptomatic patient detected a large volume fibroid measuring 10cm during routine imaging examination. On physical examination: fibroid bulging into the posterior vaginal fornix, mobile, measuring 10cm, palpable 5cm above the pubic symphysis. On pelvic MRI: a FIGO 7 fibroid in the fundal wall, measuring 9.7 x 7.1 x 6.7 cm, with an estimated volume of 239.9cc.

**Methods**

To present a case report illustrated with video of robotic myomectomy in a patient with a large fibroid and vaginal removal of the specimen, with the aid of ExCite technique.

**Results**

Under general anaesthesia, the patient was placed in a dorsal lithotomy position, with arms alongside the body and legs abducted at 80 degrees in adjustable stirrups. Three robotic ports were positioned: one umbilical and two on the right and left flanks, with a additional laparoscopic assistance on the right flank. The uterus was manipulated with a disposable uterine manipulator.

The duration of the surgery was one and a half hours, with minimal blood loss. The patient had a good postoperative evolution and was discharged the next day.

**Conclusions**

Robotic-assisted laparoscopic surgery can be an interesting alternative in the approach to large fibroids, instead of laparotomy, as it allows for greater precision and ergonomics. In addition, the use of morcellation is an important and interesting surgical tool for the extraction of large surgical specimens such as fibroids. Removing the surgical specimen through the vagina can be an option that avoids the need to enlarge abdominal punctures or open the cavity itself, contributing to a lower risk of adhesion formation in the abdominal cavity. For that reason, we can see the importance of employing techniques to facilitate this process, such as the ExCite technique, which ensures a high level of proficiency and skill in performing robotic myomectomy procedures.

<https://player.vimeo.com/video/945924569?autoplay=1>

### Recurrent ovarian cystic teratoma with disseminated peritoneal lesions: A case report

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#### Background

Mature ovarian cystic teratoma is a benign germ cell tumour that can occasionally manifest with rare complications such as recurrence and dissemination.

#### Methods

##### Case Presentation

During a routine gynaecological examination, the 28-year-old patient was found to have mature teratomas of both ovaries, measuring 13 and 6 cm. The patient underwent surgery for bilateral Cystectomy. During a routine follow-up visit three years later, the patient complained of persistent abdominal pain, dyspareunia, and primary infertility.

**Clinical Findings** On examination, the patient had lower abdominal tenderness and discomfort upon palpation. Imaging studies revealed the presence of hydrosalpinx and adhesions in this area. No cysts or endometriosis were found in the pelvis.

#### Results

The patient underwent a hysteroscopy, laparoscopy, and chromopertubation to investigate her symptoms and infertility. During the laparoscopy, we found multiple nodular lesions in the peritoneal cavity ranging from 4 mm to 5 cm in size. We also encountered adhesions and hydrosalpinx on both sides. Both tubes were impermeable. All of the nodular lesions and left tube were removed for examination. Informed consent was not obtained for the removal of the right fallopian tube; therefore, no salpingectomy was performed. The histological results confirmed that these lesions derived from previously diagnosed mature teratomas. The patient was discharged after a two-day hospital stay and has been referred to a fertility centre.

#### Conclusions

Recurrent ovarian teratoma with nodular lesions in the peritoneal cavity is rare. This case emphasizes the need for careful postoperative monitoring in patients with a history of mature teratomas. The possibility of recurrence and spread, though rare, highlights the importance of diligent observation and timely action if needed.

Additionally, the presence of hydrosalpinx and adhesions in the lower abdomen raises concerns about tubal patency and potential fertility issues.

Furthermore, the psychological impact of recurrent disease on the patient should not be overlooked. The recurrence of a benign tumour can still cause significant distress and anxiety for the individual. A comprehensive approach to care should address both physical and emotional well-being.

Identifying hydrosalpinx and adhesions during imaging adds complexity to the case. These factors may have contributed to the patient's symptoms and primary sterility. Managing the patient's condition will need to address both the recurrent teratoma and any associated complications impacting her reproductive health. Therefore, correct diagnosis is important for appropriate treatment and preserving fertility.

In conclusion, this case highlights the possibility of mature ovarian cystic teratoma recurrence and spread, underscoring the significance of comprehensive follow-up and monitoring for patients with a prior history. More research and clinical understanding are necessary to improve management strategies for recurrent mature ovarian cystic teratoma with disseminated nodular lesions. This case also demonstrates that diagnostic laparoscopy can be intricate and unpredictable.

<https://player.vimeo.com/video/945839409?autoplay=1>

### **Laparoscopic Needle Extraction Under Complete Direct Vision**

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#### **Background**

Laparoscopic suturing is an advanced skill that faces several challenges, which includes extraction of needles following completion of suturing. Introduction is typically done via the optical camera port, but extraction is done via peripheral ports, where there are cases where the needles get stuck in the smaller port catheters or even in the tissue layers, causing patient harm and delays to surgery. The reason is once the needles are within the catheter of the peripheral ports, the vision is lost, till the needle / port is out of the body. Also, the peripheral ports are often removed alongside the needles to facilitate easy removal of needles, and reintroduction of port catheter causes unnecessary tissue trauma.

#### **Methods**

This method allows the needle to be held by its threat closest to the shaft with an instrument introduced via the port further away from the optical camera port (LIF or RIF). Thereafter, under easy guidance of the camera, the needle is guided out of the optical camera port catheter. Once it is out, the needle is taken away from the surgical field and the surgery continues without any delay or safety concerns.

#### **Results**

The needles are removed very safely, each and every time this method is used

- it is fast and carries no additional steps
- it is efficient and causes no delay to surgery
- it is safe (under direct vision)
- there is no need to remove any peripheral ports
- there is no uncertainty if the needle will fit through the peripheral ports
- the needle will not get stuck in the tissues as it is not exposed to any of the abdominal wall layers
- when performed using all common central port types, no damage to the valves were encountered and vision was never obscured following removal (as demonstrated)
- the learning curve: trainees learnt and executed this method easily

#### **Conclusions**

Laparoscopic needle removal via central port is a fast and efficient method, safer than removing needles using the peripheral ports and is easy to learn and execute. This method can also be utilised for removal of small specimens (e.g. filshie clips) that will not fit the peripheral ports (and do not warrant the opening of an Endocatch/Bert bag).

<https://player.vimeo.com/video/952346603?autoplay=1>



**Robot-assisted laparoscopic myomectomy for intramural fibroids under laparoscopic ultrasound guidance**

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**Background**

Demonstrate the applicability of laparoscopic ultrasound for laparoscopic excision of symptomatic deep intramural fibroids

**Methods**

Case report illustrated with video.

Setting: Patient under general anaesthesia, placed in lithotomy position, with arms alongside the body and legs 80 degrees abducted in adjustable stirrups. Three robotic portals were positioned, each with a calibre of 8mm: one in the umbilical scar for the optics and two on the right and left iliac fossae. The laparoscopic ultrasound was used by the right iliac fossa incision. The cervix was manipulated with a disposable uterine manipulator.

Patient: 49-year-old woman previously underwent a laparoscopic myomectomy 18 months ago, during which 6 intramural and subserosal fibroids were excised. On the follow-up, she complained of abnormal uterine bleeding and chronic pelvic pain refractory to clinical treatment. Magnetic Resonance Imaging (MRI) revealed a uterus with a volume of 148 cm<sup>3</sup> containing 4 intramural fibroids classified as FIGO 3 and 4, measuring 1.6 to 2.3 cm in diameter.

Interventions: Patient was eligible for robot-assisted laparoscopic myomectomy in which ten intramural fibroids were excised.

**Results**

Ten intramural fibroids were removed under laparoscopic ultrasound guidance. The surgery lasted 3 hours, with minimal blood loss and no complications. Patient had satisfactory postoperative clinical evolution, discharged the following day, with a smooth postoperative recovery. Patient was asymptomatic in the six months postoperative follow-up.

**Conclusions**

Laparoscopic ultrasound is highly useful in detecting small and deep intramural fibroids (FIGO 3-4), facilitating the extraction of numerous fibroids through planned incisions. Detecting invisible fibroids could lead to a complete myomectomy, preventing subsequent surgeries due to the growth of symptomatic residual fibroids.

<https://player.vimeo.com/video/945872057?autoplay=1>

**Case Report: Accessory and Cavitated Uterine Mass (ACUM) treated by laparoscopic surgery**

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**Background**

The Accessory and Cavitated Uterine Mass (ACUM) is a rare Müllerian duct anomaly of unknown incidence which affects young women.

We present a 38-year-old nulligravid woman who has been suffering intermittent episodes of dysmenorrhea and dyspareunia for the last 3 years that are resistant to common analgesics. The MRI showed a lateralized intra-myometrial accessory cavity located under the insertion of the round ligament. The mass was isolated, with regular boundaries, and was composed of an external thick ring which had the same signal intensity as the junctional zone. Its content had a high signal intensity on both T1 and T2-weighted images that was suggestive of a haemorrhagic material. These findings led us to a presumed diagnosis of an ACUM.

**Methods**

A hysteroscopy was performed in the first place which showed a normal uterine cavity. The mass was treated by laparoscopic surgery. We begin the procedure by temporarily clipping the uterine arteries. A 4 cm incision is performed at its anterior edge until the mass opens draining a chocolate-like liquid. We then pull the mass and carry out its excision using a progressive coagulation-section technique. The mass is totally removed without opening the uterine cavity during the procedure. The average operative time was 1h15'. There were no intraoperative or postoperative complications.

**Results**

The woman showed clear clinical improvement after surgical resection with remission of dysmenorrhea.

**Conclusions**

ACUM presents as a cavitated lesion, surrounded by a myometrial mantle, in continuity with the anterolateral uterine wall and located beneath the insertion of the round ligament and the interstitial portion of the fallopian tube. To distinguish ACUM from other obstructive abnormalities, a normal uterine cavity should be visualized. Acien et al. suggested the term accessory and cavitated uterine mass as a new terminology and defined 6 diagnostic criteria. Our report case met all criteria.

To conclude, even though ACUM is an increasingly recognized clinical entity, it is still underdiagnosed. Currently, ACUM remains unclassified in the uterine anomaly classification of international societies.

<https://player.vimeo.com/video/945921085?autoplay=1>

**ABST-0409 - VP088**

**ePoster and Video Presentations**

**Robot-assisted myomectomy for a large uterus: how to plan**

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**Background**

Objective: To demonstrate pre- and intra-operative strategies to enable a minimally invasive myomectomy in a 2000 cm<sup>3</sup> uterus.

**Methods**

Design: Case report illustrated with video.

Setting: Patient was placed in semi gynaecological position, under general anaesthesia, with arms alongside the body and legs 80 grades abducted in adjustable stirrups. The access to the cavity was meticulously planned with the goal of allowing the best possible surgical view and optimizing the robotic arms' mobility. Therefore, three robotic portals were positioned: one in the palmer's point for the optics and two on the right and left flanks. In addition, a conventional laparoscopic portal was positioned in the umbilical scar.

Patients or participants: Patient JMZ, 39 years old, nulliparous, presenting a chronic pelvic discomfort, uncertain about her reproductive future and with desire to preserve her uterus. On the first physical examination, it was palpable above the umbilical scar. MRI showed an anteverted uterus, with a volume of 2033 cm<sup>3</sup> due to multiple nodules suggestive of fibroids, mostly intramural, with the largest one measuring 8.9 x 7.6 cm. Objecting to perform a minimally invasive surgical approach on a large uterus, a GnRH analogue was administered, which resulted in a significant uterine volume reduction.

Interventions: Patient was eligible for robot-assisted myomectomy. Most of the fibroids were removed robotically, significantly reducing the uterine volume. As planned, a mini Pfannenstiel incision was made to remove surgical specimens and to complete smaller fibroids myomectomy.

**Results**

Surgical duration was three hours and a half, with controlled blood loss and no complications. Patient had satisfactory postoperative clinical evolution, discharged the following day. Pathology report confirmed fibroids.

**Conclusions**

This report demonstrates some possible strategies for complex cases of minimally invasive myomectomy in large uteri. Accurate imaging performed by a specialist, reduced uterine volume by drug administration and adequate access to the abdominal cavity allowed the surgery's success. It is worth noting the robotic platform benefits, which allows quick and proper suturing in different uterine locations and, consequently, great bleeding control. Therefore, in complex cases such as this one it becomes evident the importance of meticulous surgical planning and an experienced team for its management.

<https://player.vimeo.com/video/945941903?autoplay=1>

**ABST-0557 - VP120**

**ePoster and Video Presentations**

**Robotic myomectomy using a robotic tenaculum**

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**Background**

We aimed to demonstrate robotic myomectomy using a robotic tenaculum on the fibroid to assist with the enucleation of the fibroid.

**Methods**

The video article demonstrates the management of a 36-year-old woman who complains of myoma uterus. Pelvic examination revealed an enlarged uterus, and transvaginal ultrasound showed several intramural and subserous myomas. The patients underwent robotic surgery.

**Results**

Multiple myomas were resected using a robotic tenaculum on the fibroid to assist with the enucleation of the fibroid. No intra-operative complication occurred. She was discharged without any grade 3 or 4 adverse events in the postoperative period.

**Conclusions**

Robotic surgery using a robotic tenaculum for myomas is feasible in selected cases.

<https://player.vimeo.com/video/951145113?autoplay=1>

### A novel imaging aid in the screening of dysmorphic uterus

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#### Background

The T-shaped uterus was first described in 1977 by Kauffman et al as a DES-related congenital uterine anomaly. Since its first description, there have been many attempts at characterizing these anomalies such as the 2013 guideline from the European Society of Human Reproduction and Embryology/European Society for Gynaecological Endoscopy (ESHRE-ESGE), the 2021 classification from the American Society for Reproductive Medicine (ASRM), and the Congenital Uterine Malformation by Experts (CUME) initiative. In our practice, we identified that upon intrauterine placement of a paediatric Foley catheter balloon in a normal uterine cavity, the shape of the balloon is circular and round. In dysmorphic uteri, the appearance of the balloon takes on an oblong appearance. The aim of this study is to describe a novel imaging finding that may assist in identifying patients with dysmorphic uteri.

#### Methods

In this case study, we observed two women. On their preoperative imaging, either dysmorphic or T-shaped uterus was suspected. During hysteroscopy, the diagnosis was confirmed, and a size eight French intrauterine paediatric Foley catheter balloon was placed to evaluate the cavity postoperatively.

#### Results

In both women, the intrauterine paediatric Foley catheter balloon took an oblong shape rather than the expected round or circular shape on transvaginal 2D ultrasound.

#### Conclusions

The appearance of an oblong shape of an intrauterine paediatric Foley catheter balloon during a transvaginal 2D ultrasound may suggest T-shaped or other dysmorphic uteri.

<https://player.vimeo.com/video/951368166?autoplay=1>

**Shortcomings of the ASRM classification of the arcuate uterus**

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**Background**

There are varying classification systems for the spectrum of the septate uterus with their own respective visual diagrams. In this presentation, we provide hysteroscopic examples of arcuate uteri to supplement classification diagrams. We also review the ASRM diagnostic criteria and emphasize "grey area" of this classification system that is not inclusive of all patients.

**Methods**

This video series represents patients undergoing hysteroscopy for infertility and recurrent pregnancy loss at a university-associated reproductive medicine centre. Hysteroscopy was performed under general anaesthesia to ensure adequate cavity distension and optimal visualization, as in-office hysteroscopy may be limited by patient discomfort. An ACMI 0° or 12° 7mm hysteroscope lens (Division of Olympus; Maple Grove, MN, USA) was used. Normal saline was used as initial distension media and switched to 1.5% glycine for the operative portion. A straight resectoscope loop electrode and hysteroscopic scissors were used for fundal protrusion measurement and incision. With the hysteroscopic uterine palpator as a reference, standardized measurements of the instruments were established to allow for indirect and direct measurements of the protrusion length. Indirect measurement was obtained by measuring from the level of the tubal ostia to the apex. Using Pythagorean's theorem, the indirect measurement value was multiplied by 60% to get an estimate of the indentation length. Direct measurement was performed after septum incision by measuring from the apex to the base of the incised protrusion.

**Results**

There is a wide spectrum of hysteroscopic appearances of the septate uterus spectrum. Significant arcuate uteri have an apex angle >90° and length >1.0 cm, however the appearance may vary as demonstrated in the supplemental videos.

**Conclusions**

ASRM criteria fails to classify patients with a "significant" arcuate uterus. Adopting diagnostic criteria focused on fundal indentation depth rather than apex angle may be more inclusive.

<https://player.vimeo.com/video/952019422?autoplay=1>

### **10 Steps to successful laparoscopic myomectomy**

*Marta L. Salgado<sup>1</sup>, Carla Escribano<sup>2</sup>, Rebeca De La Iglesia<sup>2</sup>, Fernández Carmen<sup>2</sup>, Gil Herminda<sup>2</sup>, Chao Sara<sup>2</sup>*  
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#### **Background**

##### **10 Steps to Successful Laparoscopic myomectomy**

Laparoscopic myomectomy is a minimally invasive surgical intervention used to treat patients suffering from myomas. Traditionally, this procedure was limited to women who want to preserve their fertility potential, but every day, there are more patients who demand to conserve the uterus regardless their reproductive desire. It is of prime importance to study the specific preoperative characteristics of each patient in order to carry out a correct procedure planning, focusing on the anaemia, location, number and size of fibroids. This surgery requires high skills and intensive training.

In this video we try to standardize the technique to help us perform a safer and more efficient surgery.

#### **Methods**

Surgical steps:

##### **1- Set up:**

- Lloyd-Davies position
- Uterine manipulator to provide a good access to any uterus wall.

##### **2- Operating field exposure**

- Placing the accessory trocars slightly higher provide an easy management in big uterus as well as the camera at the level of the Lee -Huan Point allows a panoramic view.
- Adhesiolysis and suspension of the ovaries to improve view and freedom of movement.

#### **Results**

##### **3- Bleeding control techniques**

- Intramyometrial vasopressin
- Intravenous TXA
- Temporary clipping of the uterine arteries at its origin and IP ligaments. The angle between umbilical artery and the ureter is a good landmark to find it easier.

#### **Conclusions**

##### **4- Myometrial incision:**

- There is no guideline for the orientation. Usually using a vertical incision for posterior myomas and transverse or oblique for anterior myomas let us an efficient suture. Our decision must also consider the size, number and location of the fibroids and uterine tubes.
- Quick and direct hysterotomy using monopolar scalpel pure cutting mode to prevent blood loss. - The cleavage plane of the pseudo capsule is determinate to avoid the bleeding and the overuse of coagulation.

##### **5- Enucleation:**

- Using traction pulling the myoma with Pozzi forceps and curved scissors along the cleavage plane.

##### **6- Suturing methods:**

- Suturing by barbed sutures is less time consuming, in one or multiple layers. Ensure there is no dead space left after the wound is closed to prevent the formation of hematomas.
- It could be appropriate to remove the excess myometrium if removing subserosal fibroids.
- Endometrial cavity may be opened. Use of methylene blue, vision of the balloon from the uterine manipulator or indocyanine green may help detect this event. In case of a big rupture, the mucosa has to be repaired with fine interrupted extramural sutures.
- Prevent adhesion forming by applying antiadhesive barriers.

##### **7- Endoclips removal: pulling on the axis, using a flat forceps.**

##### **8- Extraction**

- Consider creating a "myoma garland" to prevent losing them in the abdominal cavity and facilitate bagging.
- Electric morcellation or excite technique are useful to remove the biggest specimen, always in an in-bag.

##### **9- Adnexal or bowel suspension removal.**

##### **10- Peritoneal cavity is lavaged with warm water.**

<https://player.vimeo.com/video/952030930?autoplay=1>

**Thoroscopic secondary cytoreductive surgery for oligometastatic platinum sensitive high grade ovarian cancer recurrence**

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**Background**

To show the feasibility of a multidisciplinary approach in the secondary cytoreductive surgery (SCS) of a platinum-sensitive recurrence (PSR) in right thorax by CO<sub>2</sub> totally-closed video-thoracoscopy(TCVT) and a first-step diagnostic laparoscopy(LPDdg).

**Methods**

LPSdg by a trans-umbilical Hasson-trocar(12mm) applied in open technique and one ancillary trocar in right iliac fossa(5mm). TCVT by optic-trocar(12mm) at the 5<sup>th</sup> intercostal space and two ancillary trocars (12mm and 5mm). Tissue sealing and section by multifunction device.

**Results**

A 60-years old patient was diagnosed with a right thoracic PSR by PET-CT after 84 months from primary cytoreductive surgery for IIIC FIGO-stage high-grade ovarian cancer (HGOC), BRCA wild-type, and 6 courses of platinum-based adjuvant chemotherapy. Right thorax recurrence resulted in two nodules: in the paravertebral space, in the paracaval space up to the phrenic nerve, and a mass transdiaphragmatic. No evidence of disease in abdomen. A first-step LPSdg was performed in order to avoid possible misdiagnosed micro carcinosis not detectable at preoperative work-up. By a Totally Closed Video-Thoracoscopy (3 valved trocar) was identified and removed the paravertebral nodule affecting the parietal pleura by dissection of costal and vertebral planes. The diaphragmatic disease resulted infiltrating the inferior margin of the lower lobe of the lung, and so firstly an atypical resection of this part was performed by a three-lines stapler. Moreover, it resulted infiltrating the full thickness of diaphragm with compression of leaver. A partial resection of the diaphragm affected was performed and then it was closed by one layer of non-absorbable barbed suture. The third nodule resulted in a cardio-phrenic lymph-node removed by marginal dissection of the phrenic nerve. Pathology confirmed the diagnosis of HGOC recurrence.

**Conclusions**

Minimally invasive SCS by TCVT in PSR resulted feasible and ensured a rapid post-operative recovery to start medical treatment. A LPSdg is advisable in order to confirm the thoracic oligometastatic nature of PSR.

<https://player.vimeo.com/video/954894746?autoplay=1>



**Combined Laparoscopic and Vaginal Radical Prolift Mesh Excision with Left Sacral Nerve Root Detrapment**

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**Background**

The Prolift mesh kit, widely utilized for pelvic organ prolapse, has garnered attention due to its association with significant adverse effects in the female pelvis. Notable side effects include pelvic pain, mesh exposure, discharge, dyspareunia, and, more recently reported, pelvic nerve entrapment. Pelvic nerve entrapment can lead to chronic pain, necessitating surgical intervention

**Methods**

Narrated step-by-step video demonstration. This video presents a case of posterior Prolift mesh erosion with sacral nerve root entrapment, outlining a combined laparoscopic and vaginal surgical approach for nerve detrapment and mesh excision.

The patient provided her written consent for disseminating the video for academic purposes.

**Results**

Sacral nerve roots were preserved surgically with no neurological deficits post-operatively. The patient had a resolution of pain symptoms after the indexed intervention

**Conclusions**

In the case of pelvic nerve entrapment due to mesh exposure, nerve detrapment needs to be performed laparoscopically, before the mesh excision, but in the same procedure, to reduce the risk of nerve damage.

<https://player.vimeo.com/video/938937814?autoplay=1>

**Report case of bilateral intraperitoneal inguinal endometriosis: laparoscopic surgery**

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**Background**

The surgical video presents an uncommon report case of bilateral intraperitoneal inguinal endometriosis with laparoscopy's surgery. This 47-year-old obese multiparous woman underwent 2 years ago an interannexial hysterectomy and excision of endometriosis nodules on the utero-sacrated ligaments. She presented a recurrence of daily pelvic pain that started several months after this surgery. MRI allowed to discover 2 nodules of 18 mm of diameter in the round ligaments, suggestive of endometriosis. It may be noted that the MRI performed before the hysterectomy did not find any lesion to the round ligaments.

**Methods**

Laparoscopic surgery was performed after an ultrasonography detection: harpoons have been put into the right nodule, and 3 mm from the left nodule in supra-aponeurotic and in extraperitoneal. The harpoons were placed in the way to facilitate an eventual direct approach if laparoscopy alone was not sufficient. Surgical resection started with the peritoneal incision and gradually returned to the Nuck Canal. We peeled back the round ligament to extract it from its canal. For the left side, we made a small skin incision next to the harpoon, allowing it to be removed. On the right, the harpoon was placed in the middle of the nodule and removed intra-abdominally.

**Results**

Both nodules were removed laparoscopically without complication.

**Conclusions**

Few cases of intraperitoneal inguinal endometriosis were described in the literature, Also, the more frequently described symptom is a painful inguinal mass, and the majority of patients never undergone pelvic surgery. Except one case, the surgeries were always done by direct approach. This case is interesting because it shows the resectability by laparoscopy of bilateral intraperitoneal inguinal nodules.

<https://player.vimeo.com/video/944182019?autoplay=1>

### Pelvic Pain following Oophoropexy: a case report

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#### Background

Oophoropexy is a common procedure to treat and prevent recurrent adnexal torsion by limiting the ovarian mobility within the pelvis. Although many surgical techniques have been described, there is no standardized treatment to prevent recurrence, and no published studies have compared the long-term outcomes of the different surgical techniques. Despite its effectiveness, oophoropexy remains a critical procedure due to the potential postoperative complications such as pelvic pain.

#### Methods

This video aims to review the literature and discuss laparoscopic findings and outcomes following oophoropexy in a female patient experiencing chronic pelvic pain.

**Case presentation:** A forty-three-year-old nulliparous woman presented to our hospital with pelvic pain and dyspareunia for three years, following a laparoscopy for adnexal detorsion and oophoropexy, performed by fixing the ovary to the round ligament. During explorative laparoscopy, two sutures involving the right adnexa were noted: one to the uterus and one to the point of insertion of the round ligament in the lateral pelvic wall, with extensive adhesions around the adnexa. A right adnexectomy was performed after restoring normal anatomy as a chocolate cyst was observed on the ovary. The patient reported resolution of her pain after surgery.

#### Results

Although oophoropexy is a common procedure, the lack of standardized techniques poses a challenge in optimizing outcomes; indeed, postoperative complications such as pelvic pain can occur, requiring further investigation and management.

Techniques inducing tension on the adnexa may result in postoperative pain and tubal dysfunction.; based on our experience at a tertiary care facility, anchoring the utero-ovarian ligament to the posterior aspect of the broad ligament may present as a feasible alternative.

#### Conclusions

This video highlights the need for tailored surgical techniques for oophoropexy. Fixation of the utero-ovarian ligament to the posterior third of the broad ligament may be a valid technique, but further research is required to delineate optimal surgical strategies.

<https://player.vimeo.com/video/945916779?autoplay=1>

**Peritoneal tuberculosis mimicking advanced epithelial ovarian carcinoma**

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**Background**

To present a laparoscopic video of a case of disseminated intraabdominal tuberculosis mimicking an advanced epithelial ovarian cancer

**Methods**

53-year-old female with persistent fatigue, arthralgia, myalgia, abdominal pain and distension. Physical exam revealed minimal ascites, tenderness during palpation in all abdomen quadrants without rigidity or rebound, minimal pain during bimanual pelvic examination which revealed a palpable left adnexal mass estimated in 6cm. MRI revealed unilocular cystic lesion in the left ovary, with thin walls and homogeneous content, devoid of internal solid components, measuring 5.5 x 4.3 cm, classified as ORADS 2 with minimal to moderate ascites. CA-125 was 534. Pathologic findings revealed the presence of caseous necrosis with Langhans giant cells and miliary foci of chronic granulomatous inflammatory process in the fallopian tubes, right and left ovary and peritonium. Left ovary cystic lesion came as Cystoadenofibroma. PCR for Mycobacterium tuberculosis: positive.

**Results**

The surgery lasted 22min with minimal blood loss. The patient was discharged in stable condition on the same post operative day with minimal pain. She started treatment with antituberculosis therapy and responded well, after a month there were no more symptoms and normalization of the CA-125.

**Conclusions**

Laparoscopic surgery provides minimally invasive access with optimal visualization and biopsy possibility which makes it the ideal route for a differential diagnostic tool.

<https://player.vimeo.com/video/945954736?autoplay=1>

**Ten steps for a standardized laparoscopic nerve-sparing para-aortic lymphadenectomy**

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**Background**

Para-aortic lymphadenectomy is a component in the surgical staging of early-stage ovarian carcinoma. Its crucial role for staging and prognostic purposes is intensified by the potential access to maintenance therapies, in the era of Parp inhibitors. The surgical aggressiveness should be gauged considering the impact on the quality-of-life. Findings from the LION-PAW-study indicate that complete lymphadenectomy affects pelvic neurovegetative function, particularly impairing sexual function.

**Methods**

We present a cadaveric dissection model, and the same principles applied during laparoscopic procedures for early-stage ovarian cancer.

**Results**

Ten steps for a standardized laparoscopic nerve-sparing para-aortic lymphadenectomy:

- 1) Wide peritoneal incision (from right common iliac artery to inferior mesenteric vein)
- 2) Identification of right ureter & right ovarian pedicle
- 3) Identification of Aorta, Inferior vena cava & Left renal vein
- 4) Dissection of lymphatics from nerves in the inter-aortocaval region with sequential identification of Right aortic cord:
  - . intraperitoneal nerves
  - . intermesenteric nerves
  - . 1st infrarenal lumbar splanchnic nerve (LSN) & right spermatic ganglion (superior lumbar vessels)
  - . 2° infrarenal LSN & pre-hypogastric ganglion (common lumbar trunk or middle lumbar vessels)
- 5) Identification of Right renal artery
- 6) Removal of para-caval & inter-aortocaval lymph nodes
- 7) Identification of Inferior mesenteric artery & left ureter
- 8) Identification of Left renal artery
- 9) Dissection of lymphatics from nerves in the para-aortic region with sequential identification of Left aortic cord:
  - . intraperitoneal nerves
  - . intermesenteric nerves
  - . 1st infrarenal LSN & left spermatic ganglion (reno-lumbar vein)
  - . 2° infrarenal LSN & inferior mesenteric ganglion (1° infra-renal lumbar artery)
- 10) Removal of para-aortic lymph nodes

**Conclusions**

Laparoscopic nerve-sparing para-aortic lymphadenectomy is technically feasible. An in-depth understanding of the complex anatomical interaction between nerves and lymphatic vessels in the aortic region is required. Aortic plexus receives sympathetic supply from LSNs, inter-mesenteric&intraperitoneal nerves, although

parasympathetic fibres from vagus & PSNs are indistinguishably mixed. The neurofunctional impact needs to be further explored.

<https://player.vimeo.com/video/954402088?autoplay=1>

## Gynaecologists' Practices in Inquiring about Sexual Harassment in the Netherlands: a cross-sectional study

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### Background

Sexual harassment is a major problem in the Netherlands. 53% of Dutch women have experiences sexual harassment in their lives, while the Dutch Center of Sexual Violence indicates that sexual violence and harassment is often not recognized by healthcare professionals. Literature showed women with a history of sexual violence were at 42% higher risk of developing gynaecological symptoms, as abnormal menstrual bleeding and urine incontinence. The multifactorial cause of gynaecological symptoms is challenging, explaining why the link with a history of sexual violence is sometimes neglected. As a result, women seeking gynaecological care for symptoms from a history of sexual violence are streamlined to receive routine symptomatic treatment, which may be inadequate to address the underlying cause of their symptomatology and increase the risk of misdiagnoses and unnecessary treatment. To our knowledge there is no standardized way Dutch gynaecologists inquire about negative sexual experiences during a consultation. Our study aims to examine the current practice for identifying patients' sexual harassment within Dutch gynaecology clinics, along with an exploration of the factors that aid or hinder this screening process.

### Methods

In this population-based cross-sectional study, an expert panel developed a 32-item web-based questionnaire and contains 23 closed and 9 open questions in four domains: 1) demographics 2) knowledge and training 3) method of inquiring sexual harassment 4) barriers and facilitators of inquiring sexual harassment.

### Results

246/1531 (16%) completed questionnaires were returned (179 specialists and 67 residents). A total of 77/239 (32.2%) of respondents feel they often inquire about sexual harassment of their patient during a first consultation. 175/246 (71%) respondents feel competent to inquire sexual harassment. However, 143/246 (58%) of respondents did never receive specific training on this topic and 106/223 (48%) would like to improve skills (e.g. communication and follow-up after inquiring sexual harassment). Conducting gynaecological examinations was the primary motivator for inquiring about sexual harassment in 96/246 cases (39%) as opposed to investigating any potential correlation with gynaecological complaints, which accounted for 82/246 cases (33%). The main facilitators of inquiring sexual harassment were a history of domestic violence 193/222 (86%), general signs of reserved attitude 184/222 (83%) or non-verbal 216/222 (97%) or verbal expression of restraint to gynaecological examination 217/220 (99%). The main barrier reported by the respondents was time restriction. Subgroup analysis showed that gynaecologists feel more competent than residents to discuss sexual harassment (Odds Ratio 2.73; 95% Confidence Interval [1.51-4.95]).

### Conclusions

Dutch gynaecologists feel competent to discuss patients' sexual harassment during a consultation but would like to be trained on the subsequent steps to take.

**A unique case of haemorrhagic shock from a ruptured corpus luteum cyst with bromadiolone poisoning**

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**Background**

Ruptured corpus luteum cysts are a common cause of hemoperitoneum in a woman of reproductive age. We report a unique case of a lady presenting with haemorrhagic shock due to a ruptured corpus luteum cyst leading to a massive hemoperitoneum that was complicated by an acquired correctable coagulopathy from bromadiolone poisoning.

**Methods**

A 19-year-old healthy lady presented with abdominal pain, vomiting and haematuria. Her heart rate was 135 beats per minute and her blood pressure was 81/56 mmHg. She was pale but alert. Ultrasound imaging revealed fluid with echoes at all 4 quadrants and a 3.8cm left corpus luteum. She was resuscitated with intravenous fluids and blood transfusion. An indwelling catheter was inserted, and a bladder washout was commenced.

Her haemoglobin on arrival was 8.9 g/dl, which subsequently dropped to 4.7 g/dl. Her platelet count was normal. We noted a severe coagulopathy with prothrombin time of >120 seconds, activated partial thromboplastin time of 134.4 seconds and fibrinogen of 2.63 g/L. She had no family history of bleeding disorders; however her aunt was warded with similar symptoms and clinical presentation, and her brother was admitted for severe epistaxis. Their symptoms started after a family meal.

In view of her coagulopathy, a decision was made to hold off immediate surgery. She was stabilised in the intensive care unit with a multidisciplinary team comprising the gynaecologist, haematologist and anaesthetist. She was started on intravenous tranexamic acid, fresh frozen plasma, cryoprecipitate and vitamin K replacement. She was covered with broad spectrum antibiotics in view of the possibility of sepsis. A toxicology screen was sent. A computed tomography (CT) scan reported a likely ruptured corpus luteum.

Upon correction of her coagulation, she underwent a diagnostic laparoscopy and left ovarian cystectomy. Intraoperatively, we noted a hemoperitoneum of 2.5 litres and a ruptured 3cm left corpus luteal cyst. A cystectomy was performed and the hemoperitoneum was evacuated. Her total estimated blood loss was 3 litres. She recovered well and was discharged on post operative day 11.

**Results**

Factor assays matched a warfarin like pattern with factor II, VII, IX and X involvement and toxicology screen identified bromadiolone poisoning.

She was asymptomatic upon outpatient follow up. Histology reported a haemorrhagic corpus luteal cyst. The haematologist advised her to complete a total of 6 months of oral vitamin K replacement.

**Conclusions**

This case highlights the importance of identifying and correcting contributing factors such as coagulopathy in a patient presenting with haemorrhagic shock from a ruptured corpus luteum. A high index of suspicion should be present with atypical presenting complaints such as haematuria. Rushing for surgery without first addressing the coagulopathy may result in further massive haemorrhage and severe consequences. This case also emphasizes the importance of a multi-disciplinary team.



**Heterotopic pregnancy after bilateral salpingectomy, IVF and multiple embryos transfer. A case report and systematic review of the literature**

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**Background**

Heterotopic pregnancy (HP) is defined as a multiple pregnancy with both an intrauterine and an ectopic conceptus, occurring in 1:30000 of natural conceptions. Assisted reproduction techniques have though raised the overall incidence of HP to 0.09% or approximately 1:1000. Heterotopic pregnancy may extremely rarely lead to abdominal implantation, resulting to an abdominal pregnancy (AP). As AP occurs approximately in 1:1000 ectopic pregnancies, it is obvious that heterotopic abdominal pregnancy (HAP) is an extremely rare complication of in vitro fertilisation/ embryo transfer cycles, least of all after prior bilateral salpingectomy.

**Methods**

We report a case of a ruptured abdominal pregnancy on the omentum which was the stimulus to conduct the first systematic review on this complication according to 'PRISMA' guidelines (PROSPERO R.No CRD42020134104). PubMed, EMBASE and OpenAIRE databases were systematically reviewed for studies reporting (a) cases or case series of, (b) heterotopic pregnancies after, (c) prior bilateral salpingectomy, and (d) embryo transfer cycles.

**Results**

Twenty-two articles met the selection criteria including, with our case, 28 cases. The mean age of affected women was 33 years old (range 27–40 years old) and the mean gestational age in weeks at diagnosis, excluding two cases of prolonged gestational age of 32 and 26weeks, was seven weeks and five days. The leading reason for previous salpingectomy was ectopic pregnancy (44%), including nine women that had two consecutive or simultaneous previous ectopic tubal pregnancies. In most of the cases (57%) the ectopic implanted conceptus was ruptured prior to admission at the hospital. Of all women, 25% were asymptomatic, 46% presented with abdominal pain, 21% with vaginal bleeding and 7% with weakness or unstable vital signs. The ectopic part of the heterotopic pregnancy was managed conservatively with local injection of either KCL or methotrexate in only two cases. In the rest 26 cases, laparoscopy (21%), conversion to laparotomy (11%) or laparotomy (57%) was needed. Among abdominal pregnancies only our case was managed successfully with laparoscopic access. Finally, in 65% of the cases the intrauterine pregnancy proceeded to a viable neonate, 60% of which were term neonates. One pregnancy was ended with a medical abortion due to trisomy 21 while seven of the intrauterine pregnancies miscarried from which three preceded the diagnosis of the ectopic pregnancy. No maternal death was reported, and the main delivery mode was Caesarean Section in 87% of the cases.

**Conclusions**

Clinical manifestations and laboratory findings can be unspecific or misleading. Transvaginal ultrasound is the main diagnostic tool as the ectopic foetus is more frequently located in the intramural part of the fallopian tubes, the tubal stump or the ovaries. Laparotomy or laparoscopy are the main treatment options with adequate perinatal outcome.

**ABST-0219 - P\*015**

**ePoster and Video Presentations**

### **Laparoendoscopic single-site surgery (LESS) in benign gynaecology: experience in a tertiary centre**

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#### **Background**

Laparoendoscopic single-site surgery (LESS), also known as single-port surgery, is a novel and increasingly popular minimally-invasive technique. Compared to conventional laparoscopy, it minimises the morbidity associated with multiple incisions and is associated with improved cosmesis. The study aims to determine the clinical profile and surgical outcomes of a series of benign gynaecology patients treated with LESS.

#### **Methods**

This is a retrospective analysis of benign gynaecology patients treated with LESS from 2015 to 2020 at Singapore General Hospital. Data on demographics, co-morbidities, indication, type of surgery and outcomes were collected and analysed. Malignant cases were excluded from this study.

#### **Results**

A total of 128 women underwent LESS for benign conditions. 56 patients underwent total hysterectomy bilateral salpingoophorectomy (THBSO), 14 patients underwent total hysterectomy with or without bilateral salpingectomy (ovaries conserved), 38 patients underwent salpingoophorectomy and oophorectomy, 17 patients underwent cystectomy and 3 patients underwent salpingectomy. The age of patients ranged from 18-85 years old. 35% of patients had a previous abdominal or pelvic surgery prior to LESS. The most common indication for surgery was ovarian cyst (50%), followed by fibroids (18.8%), and adenomyosis and endometriosis (5.5%). The median operating time ranged from 40 – 315 mins and differed according to the type of surgery performed. The median estimated blood loss (EBL) ranged from 50 – 650mL. The rate of perioperative complications (Grade II and above) was low (6.2%). One patient required intraoperative transfusion. There were no cases of conversion to conventional laparoscopy or laparotomy, and no cases of intraoperative injury.

#### **Conclusions**

LESS is feasible and provides safe and effective outcomes in gynaecology patients with various benign conditions.

### The impact of myofascial pelvic pain on female sexual function

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#### Background

Myofascial pelvic pain (MFPP) is a prevalent, yet frequently overlooked condition characterized by painful myofascial trigger points (MTrPs) located within the pelvic muscles. Affected women often experience a severe negative impact on their quality of life. As female sexual health is of high significance for both individual quality of life and in relation to myofascial pelvic pain, we here aim to investigate the connection between MFPP and women's sexual functioning.

#### Methods

83 premenopausal women with benign gynaecological conditions like ovarian cysts, endometriosis and fibroids were included in this pilot study. Assessment involved anamnesis, subjective pain intensity measured by visual analogue scale, an established standardized examination method providing internal palpation scores for MFPP, and the German Female Sexual Function Index (FSFI) questionnaire.

#### Results

Women with MFPP (37; 44,6%) had more days with pain per month (8 vs 3,  $p=0.002$ ), and higher median VAS scores for dyspareunia (4 vs 0,  $p<.001$ ) than women without MFPP (46; 55,4%). We found a significant negative correlation between the extent of MFPP and FSFI scores ( $r=0.35$ ,  $p<.001$ ). In detail, we observed significant negative correlations in the subdomains pain ( $r=-.364$ ,  $p<.001$ ), lubrication ( $r=-.230$ ,  $p\leq.005$ ), and arousal ( $r=-.360$ ,  $p<.001$ ).

#### Conclusions

With dyspareunia and recurrent pelvic pain as key features, MFPP has a significant negative impact on female sexual health and functioning with an emphasis on pain, arousal, and lubrication. This understanding combined with raised awareness for MFPP could provide the foundation for an individualized therapy, thereby improving the quality of life of affected women.

## Evaluation of Women's Reproductive Health after Emergency Gynaecological Surgeries

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### Background

Diagnostic and therapeutic laparoscopy offer a precise and effective approach to evaluate and treat acute gynaecological conditions and is widely used in these cases. However, despite the advantages of laparoscopy, the long-term consequences of these interventions on women's reproductive health remain understudied. In this study, we evaluated their impact on women's reproductive health, specifically examining postoperative symptoms (pelvic pain, menstrual disorders, and infertility) and their medium-term prevalence.

### Methods

A descriptive, observational, cross-sectional study was conducted in our department to assess the impact of emergency surgical interventions on women's reproductive health. The study period spanned three years, from January 2020 to January 2023. The study population included all patients undergoing emergency gynaecological surgery in our department during the mentioned period. Data collection was done using survey forms, operating room registers, and patients' medical records. The collected data were entered and processed using IBM SPSS Statistics version 27.0. For statistical analysis, several tests were performed, including the chi-square test, the Student's t-test and the Fisher's exact test. The significance thresholds used were generally set at  $p < 0.05$  to determine statistically significant associations.

### Results

The reproductive health status of 167 women aged 19 to 42 years was analysed at least 1 year after emergency surgical intervention. Among these women, 101 (60.5%) underwent laparoscopic intervention for "acute abdomen," while 66 (39.5%) underwent open laparotomy. In the laparoscopic intervention group (study group), the indications were as follows: adnexal torsion (33; 31.4%), ectopic pregnancy (29; 44.6%), and complicated ovarian cysts (19; 24%). The mean age of women in this cohort was  $28.9 \pm 6.2$  years. Before surgery, among the 167 women, 5 (4.9%) had dysmenorrhea, 22 (22%) had oligomenorrhea, and 9 (9%) had abnormal uterine bleeding, totalling 36 women (35.6%) with menstrual disorders. Additionally, 30 women (29.7%) had a history of genital infections, and 6 (5.9%) had a history of foetal losses. Fourteen (13.9%) women had been examined and treated for infertility before surgery. After surgery, it is noteworthy that hormone therapy was prescribed in 13 (24.5%) of 53 cases where it was indicated. The analysis of reproductive function status after surgery showed a significant increase in the incidence of dysmenorrhea (from 22% to 35.9%,  $p < 0.05$ ), and infertility (from 13.9% to 21.6%,  $p < 0.05$ ). Additionally, chronic non-cyclic pelvic pain appeared in 30 women (29.7%) after surgery, whereas it did not exist before.

### Conclusions

our findings highlight the significant consequences of emergency gynaecological surgeries, even using a laparoscopic approach, on women's reproductive health. These findings underscore the importance of careful evaluation of women's reproductive health after such interventions, as well as the need for appropriate management strategies to mitigate adverse effects on patients' fertility and quality of life.

### Pathomorphological features for the formation of endometrial hyperplasia with atypia

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#### Background

Recent scientific studies claim that in women with polyposis or atypical endometrial hyperplasia routine histological examination may be necessary in patients with risk factors for timely verification of atypical changes and prognosis of cancer is justified.

Goal. To identify pathomorphological markers of atypia in endometrial hyperplasia in patients with endometrial polyps for early prediction of malignancy risks.

#### Methods

A prospective randomized cohort study was conducted in 37 women of reproductive age with abnormal uterine bleeding and endometrial polyps. All patients conducted hysteroscopy as a treatment method followed by histological examination of the resected material. The control group consisted of 20 women on whom was conducted diagnostic hysteroscopy with biopsy. Endometrial samples were stained with hematoxylin and eosin and viewed under a microscope at x200 magnification. Statistical analysis of the collected data was performed using the Statistica 8.0 Software Package (StatSoft, USA) on a personal computer.

#### Results

During the histological examination, it was found that in 51.4% the endometrial glands were unevenly located and had different shapes and sizes, the glandular epithelium was structurally slightly different from the proliferation stage, oval nuclei prevailed in the epitheliocytes, and the cytoplasm was mainly basophilic. Mitoses took place only in individual cells. At the same time, the stroma was dominated by fibroblast-like cells with oval nuclei, single spiral arteries, moderate stagnant whole blood.

The structure of the polyps showed a structural rearrangement of the glandular component: the glands had different shapes and sizes, were located compactly, and branched glandular structures with folds in the direction of the lumen prevailed. At the same time, the epithelium was mainly single-row, in some cases - two- and three-row. Nuclei were oval or rod-shaped, rich in chromatin, blood vessels were unevenly distributed, phenomena of stasis and isolated fibrin thrombi were observed.

It should be noted that in 40.5% of cases both the endometrium and the structure of the polyps showed atypia signs with loss of polarity of the epithelium, numerous papillary intussusceptions of the glands, micropapillary growths with the formation of "epithelial membranes", areas of adenoacanthosis, increased mitotic activity, nuclei deformation with accumulation of chromatin. The glands were predominantly cystically enlarged with single-row cylindrical or flattened epithelium, uneven blood supply, microthrombi and stasis.

#### Conclusions

In patients with endometrial polyposis, in 40.5% of cases, a marked structural rearrangement of the glands is revealed, with the formation of numerous pathological formations, an atypical structure of the epithelium, uneven blood supply, and an increased number of pathological mitoses.

Timely hysteroscopy makes it possible to carry out histological identification of endometrial structures and polyps to predict the risks of malignancy at an early stage and to carry out adequate treatment of pathological conditions to preserve the reproductive health of women.

**Laparoscopic sacrocolpopexy for advanced pelvic organ prolapse, compare the long-term outcomes of polypropylene (PP) mesh and polyvinylidene fluoride (PVDF) mesh.**

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**Background**

Our aim was to evaluate the feasibility and safety of laparoscopic sacrocolpopexy (LSCP) and compare the long-term outcomes and complication rates of polypropylene (PP) mesh and polyvinylidene fluoride mesh (PVDF), following up of a minimum period of 5 years, 60 months. This was a retrospective cohort study focused on 271 patients who underwent LSCP for POP involving either PP or PVDF mesh between January 2011 and January 2024.

**Methods**

Description and evaluation of the Technique in 147 Patients treated laparoscopically to repair advanced (III-IV) genital prolapsed. A non-randomised prospective analysis of 147 women, who underwent laparoscopic genital prolapse repair at St. Luke's Hospital in Thessaloniki, Greece and at Mother and Child Medical Centre in Nikosia, Cyprus. The patients with Descensus uteri underwent total laparoscopic hysterectomy with BSO and then laparoscopic sacrocolpopexy using two different kinds of mesh. PRR for either zytocele or rectocele and PRS for both. All the patients were reviewed at 1 month, 3 months, 9 months and then every 6 months after the surgery for a period of 5 years. The follow-up was between 6 months and 104 months (2015-2024).

**Results**

All procedures were successfully completed laparoscopically, and patients baseline characteristics were not statistically different in the two groups. Between January 2011 and December 2014, we performed 124 cases of LSC, mainly using PP mesh. Over the last 10 years, since January 2015, we have used PVDF mesh for POP in 147 cases. The follow up period was set up for at least 5 years. There were no major intraoperative or postoperative complications, and we had no mesh exposure or erosion. The mean hospitalization stay was 2.1 days.

**Conclusions**

LSCP using PVDF mesh was found to provide excellent anatomical and functional outcomes after a median follow-up duration of 72 months, compared with the PP group, which had a median follow-up duration of 91 months. Mesh infection and erosion rates in the PP group were significantly higher than those in the PVDF group. Additionally, rates of vaginal pain and discomfort were significantly lower in the PVDF group when compared with the PP group.

The laparoscopic sacrocolpopexy using DynaMesh (PVDF) is an effective and safe technique to repair the pelvic organ prolapses. The long term anatomical functional results are very satisfactory with no major complications.

**ABST-0051 - P209**

**ePoster and Video Presentations**

**Baclofen and Gabapentin suppositories for female pelvic myofascial pain: a case series**

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**Background**

Myofascial pelvic pain (MPP) causes discomfort within the muscles of the pelvic floor and connecting fascial structures. This condition can significantly impede pelvic functionality. Yet, there's a paucity of empirical evidence scrutinizing the efficacy of medical approaches addressing it.

Presently, certain Canadian centres are administering a new off-label formulation comprising Baclofen Gabapentin for myofascial pain, particularly in women with pelvic floor muscle-related myofascial pain, yielding anecdotal reports of positive outcomes.

This study aims to evaluate the effectiveness and safety of Baclofen/Gabapentin suppositories (BGS) in alleviating pain and enhancing the quality of life among patients with MPP.

**Methods**

A retrospective chart review was conducted for individuals prescribed BGS for myofascial pain as part of their standard care in our clinic.

Inclusion criteria comprised consenting females aged 18 and above, proficient in English, diagnosed with myofascial pelvic pain, and prescribed BGS. Exclusions encompassed non-consenting patients and pregnant patients.

**Results**

After the start of the BGS, participants exhibited a noteworthy reduction in mean VAS scores, decreasing from a baseline mean of 3 to 1 after one year (p-value <0.0001). A parallel trend was observed in responses to a query about "worst pain". Conversely, inquiries regarding pain intensity failed to reveal a statistically significant change in VAS scores from baseline to the 1-year follow-up. The secondary outcome of PCS demonstrated a significant improvement, with mean scores decreasing from 41.97 at baseline to 33.57 at 1-year follow-up (p-value 0.0009). Conversely, PFDI-20 scores and its subdomains, as well as FSFI scores, did not exhibit statistically significant changes between baseline and 1-year follow-up.

**Conclusions**

BGS shows promise as an intervention for females suffering from MPP and warrants consideration for patients with this condition. However, further rigorous clinical trials are necessary to establish comprehensive global recommendations for the use of this intervention.

### Application of a new hinotori robotic surgery system to robotic sacral colpopexy

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#### Background

Sacralcolpopexy is considered as a gold standard surgery especially for Level I pelvic organ prolapse and robotic sacralcolpopexy (RSC) RSC is becoming widely used and is expected to become the standard of care in the future due to the ease of the procedure and its low recurrence rate. The Da Vinci Surgical System series (Intuitive Surgical, Inc.) has been widely used as an endoscopic surgical support device, but in recent years, various companies have released endoscopic surgical support devices with different features. In our department, we have started RSC using hinotori, a new endoscopic surgical support device released by Medicaloid. Herein we report on initial case series of RSC.

#### Methods

The patients with POP-Q stage III or more were recruited from June 2023. Thereafter, 11 cases were managed by hinotori surgical system (group HSS). As a comparison of these case series, POP patients managed by da Vinci Xi (group DVS) were also analysed. The demographic data and operation data were compared.

#### Results

BMI of group DVS ( $23.98 \pm 3.6$ ) and HSS ( $24.21 \pm 2.7$ ) were comparable. We also compared operation time (DVS:  $216.5 \pm 39.2$  min, HSS:  $225.4 \pm 41.2$  min) and bleeding during the surgery (DVS:  $12.0 \pm 17.5$  mL, HSS:  $20.9 \pm 39.6$  min), and these parameters were also comparable. Although HSS was performed by trained surgeons and DVS was performed by novice surgeons, there was no significant difference between the two groups. No intraoperative or postoperative complications were observed.

#### Conclusions

Considering the data required to fulfil RSC surgery, these two system did not show significant differences, and the safety of RSC was assured. Therefore, we would like to conclude that RSC using HSS is a safe and feasible modality for patients with Level I POP.



**Is single-port laparoscopy or vaginal natural orifice transluminal endoscopic surgery (vNOTES) the better option for salpingo-oophorectomy?**

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**Background**

Ovarian masses are detected in approximately 5–15% of women of reproductive age. Approximately half of all adnexal masses require surgical intervention. Recently, the use of vaginal natural orifice transluminal endoscopic surgery (vNOTES) and single-port laparoscopy (SPLS) has become increasingly prevalent. To compare postoperative pain and recovery in patients undergoing oophorectomy with single-port laparoscopic surgery (SPLS) versus vaginal natural orifice transluminal endoscopic surgery (vNOTES).

**Methods**

Patients who underwent salpingo-oophorectomy with SPLS or vNOTES between 2016 and 2023 were analysed retrospectively. Oophorectomy was performed based on the presence of an adnexal mass or BRCA mutation.

**Results**

Fifty-two patients underwent oophorectomy with SPLS and 35 underwent vNOTES. Although the mean mass size was slightly larger in the SPLS group than in the vNOTES group ( $8.0 \pm 4.1$  vs.  $6.8 \pm 3.3$  cm), the difference was not significant ( $P = 0.161$ ). There was no difference in operating times between SPLS and vNOTES. The Visual Analog Scale (VAS) score at 2, 6, 12, and 24 hours postoperatively was significantly lower in the vNOTES group than the SPLS group  $5.6 \pm 1.0$  vs.  $5.0 \pm 1.0$  ( $P = 0.015$ ),  $4.2 \pm 1.1$  vs.  $3.7 \pm 0.8$  ( $P = 0.031$ ),  $2.2 \pm 0.9$  vs.  $1.7 \pm 0.7$  ( $P = 0.021$ ), and  $1.6 \pm 0.7$  vs.  $1.3 \pm 0.5$  ( $P = 0.037$ ), respectively. The mean Faces Pain Scale (FPS) score was also significantly lower in the vNOTES group at 2, 6 and 24 hours postoperatively. The mean QoR-40 value was higher in the vNOTES group compared to the SPLS group ( $148 \pm 11$  vs.  $156 \pm 14$ ;  $P = 0.009$ ). This analysis identified vNOTES as an independent predictor of a high QoR-40 score.

**Conclusions**

This retrospective study compared the postoperative pain outcomes of vNOTES and SPLS oophorectomy. Although the operating and removal times were similar in vNOTES and SPLS, the port installation time was shorter in the SPLS group. The vNOTES group had less early postoperative pain (2 and 6 hours postoperatively) in both the objective and subjective pain assessments.

**Optical trocar access for gynaecological robotic surgery: considerations about the learning curve.**

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**Background**

Optical trocar access (OTA)- a technique for the first trocar placement in minimally invasive surgery- allows the direct visualization of tissue layers, from the skin to the peritoneal cavity, helping to prevent vascular and bowel injuries. Given its peculiarity, it is suitable for supervised learning by junior surgeons. This study aims to evaluate the learning curve (LC) for OTA in gynaecological robot-assisted surgery, at a tertiary referral centre in Milan, Italy.

**Methods**

A prospective study was conducted involving 60 female patients who underwent robot-assisted surgery. Patients were randomly assigned for trocar insertion by a junior surgeon or an experienced practitioner. The LC was evaluated based on the following parameters: 1) trocar insertion time, 2) senior surgeon interventions, 3) instances of trocar tip dwell within the preperitoneal layer, 4) skin incision errors, 5) trocar tip placement under the omentum, and 6) any procedure-related complications.

**Results**

No major intraoperative or postoperative complications were recorded. The time required for OTA was significantly shorter for the experienced surgeon compared to the junior (median time of 78 seconds vs. 60 seconds), with the trainee's performance plateauing after approximately ten procedures. The robotic trocar access (RTA) time did not exhibit a statistically significant correlation with patient body mass index (BMI). The most common error was trocar tip entrapment within the peritoneal layer (n=14, 23%), and a significant reduction in surgical errors over time was observed.

**Conclusions**

OTA in robotic surgery provides a rapid and straightforward method for achieving pneumoperitoneum and enhances learning safety through continuous supervision. Junior surgeons adapt quickly, with proficiency stabilizing after around ten cases.

**ABST-0112 - P220**

**ePoster and Video Presentations**

**International expert consensus on metric-based characterization of robot-assisted total laparoscopic hysterectomy (RATLH).**

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**Background**

The study aimed to develop procedural performance metrics for robot-assisted total laparoscopic hysterectomy (RATLH) and to establish face and content validity evidence through a Delphi consensus meeting.

**Methods**

A core metrics team comprising three highly experienced gynaecologists specializing in RATLH from the United States, along with a behavioural scientist, was formed to develop the procedural metrics. To ensure a comprehensive representation of technique and clinical practice across both the US and the Europe, a consensus meeting was also conducted with European clinicians. The final metrics were discussed by 28 experts in RATLH from 13 different countries. Two modified Delphi consensus meetings took place as a-face-to-face and online.

**Results**

Initially, performance metrics consisting of 20 Phases, 110 steps, 119 errors and 54 critical errors were identified to characterize the RATLH procedure. During the Delphi panel meetings these were discussed and modified. The outcome of the meeting was consensus on 20 Phases of the procedure, with 116 Steps (8 added, 2 deleted), 134 Errors (19 were added and 4 were deleted), and 56 Critical Errors (2 added). A total number of 41 general edits were performed and with 100% consensus.

**Conclusions**

This study presents the first comprehensive metric-based characterization of a standardized approach to RATLH, validated by expert consensus using a structured methodology that comprises operative procedure Steps, Errors, and Critical Errors. The next phase will evaluate reliability and the construct validity of the agreed metrics.

### Laparoscopic management of 7 weeks rudimentary horn pregnancy: a case report

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#### Background

Unicornuate uterus prevalence is 0.1% in the population, with 74% of unicornuate uterus having a rudimentary horn. 70–90% of the time, the rudimentary horns do not communicate with the main horn. Rudimentary horn pregnancy itself is a rare form of ectopic pregnancy with an incidence of 1 in 75,000 to 1 in 150,000 pregnancies that occurs in women with disorders of the growth and fusion of the Müllerian paramesonephric ducts. Diagnosing and treating rudimentary horn pregnancy remains challenging. Many women with rudimentary uterine horns experience acute uterine rupture during pregnancy because the rudimentary horn does not have enough space or blood supply to support a growing foetus. Early diagnosis is the key to successful treatment.

#### Methods

A case report of elective laparoscopic treatment of rudimentary horn pregnancy (Class U4a, according to the ESHRE/ESGE consensus on the classification of female genital tract congenital anomalies).

#### Results

We report a case of a 27-year-old woman, G1P0A0, with rudimentary horn pregnancy at 7 weeks of gestation. B-HCG test: 27098 mIU/ml. Transvaginal ultrasonography showed an adnexal mass having an embryo with an observed foetal heart rate, a gestational sac of 21.5x17.5 mm, and a crown-rump-length (CRL) of 9.5 mm corresponding to pregnancy of 7 weeks 6 days. The uterine cavity had no visible gestational sac. The pouch of Douglas had no free fluid inside. This data has been confirmed by MRI. Due to potential risk of uterine horn rupture, we performed laparoscopic removal of a rudimentary uterine horn. The rudimentary uterine horn and left fallopian tube were removed laparoscopically using monopolar, bipolar energy and sharp dissection. The integrity of the hemi-uterus wall was repaired with a double layer of continuous monofilament absorbable suture and the round ligament was reconnected to the hemi-uterus to prevent its lateral displacement.

#### Conclusions

In conclusion, rudimentary uterine horn pregnancy is a rare condition that can be difficult to diagnose before surgical treatment and is associated with significant maternal risks and adverse foetal outcomes. Early detection and treatment before rupture could lower the mortality rate. This case report highlights the challenges in diagnosing rudimentary horn pregnancy and the importance of timely intervention. In our opinion laparoscopy is an effective and safe surgical option for treatment rudimentary horn pregnancy.

**Evaluating the Effects of Implementing a Robust Referral System for Fertility Patients on Treatment Time and Hospital Costs.**

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**Background**

It is widely recognised that infertility has a significant adverse effect on patients physically, psychologically and socially. A core determinant of a patient's perceived quality of life throughout an infertility journey is the duration of time taken to receive treatment or achieve pregnancy. The primary objective of this study was to evaluate the direct effect on fertility services at East and North Hertfordshire NHS Trust at the patient- and hospital-level following implementation of the NHS Referral Assessment Service (RAS) in February 2022. The study aimed to quantify the impact of RAS on patients' experiences of undergoing fertility treatment and the financial cost to the Trust of such treatment.

**Methods**

A total of 100 patients (50 pre-RAS and 50 post-RAS) were randomly selected by an experienced member of the fertility administration team for inclusion. Data was extracted from patients' paper notes and electronic records on the following parameters: age; parity; female's body mass index; subfertility cause; duration of time from initial referral to documented treatment plan; number of hospital appointments prior to clinician decision on treatment; investigations undertaken; total cost to Trust of patient investigations; recommended treatment; and treatment outcome. Statistical analyses were performed on SPSS and independent sample t-tests utilised to compare pre- and post-RAS data.

**Results**

Across the 100 patients sampled, ages ranged from 22 through 45 and 82% of women were nulliparous at the time of referral. The three most common documented causes of subfertility among these patients included unexplained (31%), anovulation (30%) and male factor (20%). The mean duration of time from GP referral to documented fertility treatment plan was 7.4 months (SD=3) for pre-RAS patients compared to 4.3 months (SD=2) for post-RAS patients, with a mean difference of 3.1 months (95% CI 2.147-4.053,  $p=.017$ ). Pre-RAS patients required an average of 2.52 (SD=1) hospital appointments prior to treatment decision, decreasing to 1.36 (SD=1) for post-RAS patients; the mean difference in the number of appointments between groups was 1.16 (95% CI .894-1.426,  $p=.001$ ). The mean financial cost to the Trust per pre-RAS patient was 735.95 (SD=197.34) compared with 391.62 (SD=291.56) per post-RAS patient, with a mean difference in cost of 344.33 (95% CI 245.528-443.138,  $p=.001$ ).

**Conclusions**

RAS has significantly reduced both the number of hospital appointments attended and the wait time from GP referral prior to documented treatment plan—factors likely associated with the emotional burden of undergoing fertility treatment. At the hospital-level, the total cost per patient was significantly reduced in the post-RAS compared with the pre-RAS group, likely due to GPs conducting the majority of required initial fertility investigations. Thus, implementing RAS has the potential to positively impact both patient experience of accessing fertility services and hospitals' financial burden of providing such services.

**Optimizing patient positioning for cystoscopy following hysterectomy**

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**Background**

Intraoperative cystoscopy at the time of benign hysterectomy is a matter of debate. Adding cystoscopy potentially leads to additional operative time and cost, however, it may also enable early detection of an unnoticed urinary tract injury. Prompt recognition and possible intraoperative repair can decrease substantial morbidity. In order to improve efficiency and reduce operating time, this study aimed to investigate the impact of patient positioning on the duration of cystoscopy following hysterectomy.

**Methods**

This was a prospective randomized controlled study conducted at a single tertiary university-affiliated medical centre. All women undergoing elective robotic hysterectomy for benign gynaecological indications between April 2023 and February 2024 were offered to participate in the study. Cystoscopy was conducted at the conclusion of the hysterectomy procedure using sterile water. Participants were randomly assigned to one of four groups: 1) Flat position without insufflation, 2) Trendelenburg position with insufflation to 15 mm Hg, 3) Flat position with insufflation to 15 mm Hg, and 4) Trendelenburg position without insufflation. The times were recorded for the first ureteral jet (T1), the time interval between the first and second ureteral jets (T2), and the time from T2 to the completion of the procedure after the visualization of an air bubble at the bladder dome (T3). Surgeon satisfaction was assessed using a scale ranging from 1 (not satisfied) to 5 (highly satisfied). Primary outcome was the total time for cystoscopy completion (T1+T2+T3). Data are presented as median and interquartile range.

**Results**

A total of 137 women were randomized, of them 125 (91%) included in the analysis (31 in arm 1, 30 in arm 2, 31 in arm 3, and 33 in arm 4). Demographic and operative characteristics were comparable between the groups. No significant differences were observed in T1, T2, and T3 between the groups. The total time for cystoscopy completion was longest in the third group (flat and insufflated), although this difference was not statistically significant [103(61-188) vs. 116(49-219) vs. 130(69-211) vs. 82(62-274) seconds; p=0.57]. There were no significant differences in surgeon satisfaction rates.

**Conclusions**

Patient positioning during cystoscopy following hysterectomy does not impact the procedure duration or surgeons' satisfaction rates.

**Pelvic Abscess. Never Say Never!**

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**Background**

The incidence of Pelvic Inflammatory Disease (PID) seems to be on the rise, as emerging virulent strains of micro-organisms emerge, along with the increased incidence of immune-suppressed states, with diabetes mellitus or the use of immunosuppressants.

If improperly treated, PID may eventually end up with pelvic abscess, which may be life-threatening in the acute phase, or “fertility-threatening” in the chronic phase.

Pelvic abscess has always been looked as an end-stage for women’s reproductive career, and treatment was usually aimed at removal of the septic focus in the pelvis, without hope for restoring fertility potential, at least the natural one.

**Methods**

In this presentation, we journey through a case series of patients presented with PID, either acute or chronic, who were subjected to laparoscopic interventions. Laparoscopy for those patients was performed with a concept of not just draining the existing abscess, or for the radical removal of all possibly infected tissues, but with a concept of performing “reproductive reconstructive surgery”, that aims to restore the potential of conception, whether spontaneous, preferably, or assisted.

**Results**

The results of our case series, over several years of expertise, and dealing with various degrees of aggression of the inflammatory process, confirmed the possibility of restoring the reproductive potential for many such cases, even in those in whom the inflammatory process seemed to have taken hold of all of the genital tract. This was evident from second, and even third-look laparoscopic interventions, and with post-operative follow up and reproductive counselling.

Some of those cases were even able to achieve spontaneous conception, and even those who ended up using assisted reproduction, were able to retain good ovarian reserve.

**Conclusions**

Albeit stormy and drastic in attacking victims, PID and pelvic abscess may still be managed with a surgically conservative approach, aiming at preserving fertility as much as possible, hoping to achieve spontaneous conception, or at least have favourable outcomes with assisted reproduction.

## ABST-0143 - P072

### ePoster and Video Presentations

#### Efficacy and safety of high intensity focussed ultrasound (HIFU) in treatment of fibroids: a Singapore experience

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#### Background

Uterine fibroids and adenomyosis are common gynaecological conditions that often require surgical treatment. Minimally invasive interventions such as ultrasound-guided high-intensity focused ultrasound (USgHIFU) are gaining popularity as they avoid surgical morbidity and conserve the uterus. We present a single-center experience on the use of USgHIFU for the treatment of fibroids and adenomyosis.

#### Methods

This was a retrospective study of 167 patients who underwent USgHIFU for uterine fibroids and adenomyosis between July 2018 and December 2020. Relevant demographic data and pre- and post-intervention fibroid volume, symptom severity scores (SSS), and health-related quality of life (QOL) scores were collected and compared. The paired *t*-test or Wilcoxon signed-rank test was used to compare the difference before and after treatment.  $P < 0.001$  was considered statistically significant.

#### Results

One hundred and sixty-seven patients with fibroids or adenomyosis were included in this study. The mean age of the cohort was 42-year-old. USgHIFU treatment led to a reduction in mean fibroid volume, improvement in SSS, and health-related QOL scores. The average reduction in mean fibroid volume was 68% and 75% at 6 and 12 months, respectively. There was a significant reduction in SSS (46.9 [pre] vs. 15.6 [post],  $P < 0.001$ ) and improvement in health-related QOL scores at 6 months (58 [pre] vs. 86 [post],  $P < 0.001$ ). The re-intervention rate following USgHIFU was 7.7% and successful pregnancy post USgHIFU was reported in 6 patients.

#### Conclusions

USgHIFU is safe and effective. It should be offered as a treatment option for the treatment of uterine fibroids and adenomyosis, especially in women who desire fertility or are not suitable for surgery.



**Y-Shaped uterus: hysteroscopic diagnosis and treatment.**

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**Background**

Congenital Müllerian duct anomalies (MDA) are congenital anomalies of the female genital system due to maldevelopment of the Müllerian or paramesonephric ducts. The prevalence in general population has been reported up to 5%, it's higher in infertile women specially in those women with recurrent abortion. Several systems have been proposed to classify the MDA, the ESHRE/ESGE consensus on the classification of female genital tract anomalies is one of the most accepted currently. Class U1 or Dysmorphic uterus incorporates the uterus with a normal uterine outline but with an abnormal shape of the uterine cavity excluding septa. Class U1a or T-Shape uterus is characterized by a narrow uterine cavity due to thickened lateral walls with 2/3 uterine corpus and 1/3 cervix correlation. However, a new subclassification of the T-Shape uterus have been proposed recently; T-shaped uterus: thick lateral walls, normal fundus and interostial distance (without septum or subseptum appearance); Y-shaped uterus: thick lateral walls, fundal septum or subseptum and reduced interostial distance; and I-shaped uterus: very thick lateral walls (even above the isthmus) and severe reduction of the interostial distance (tubular appearance of the whole uterus).

**Methods**

Case report of hysteroscopic diagnose and treatment of a Y- Shaped uterus performed in Clinic Barcelona in 2023.

**Results**

We present a case of 30 years-old patient with Turner syndrome who wanted to get pregnant. Thus, an ART using in vitro fertilization with egg donation was proposed. Y-Shaped uterus was suspected when the 3D transvaginal ultrasound (3D-TVS) was performed. An office hysteroscopy was carried out and a narrow uterine cavity in the middle third was observed. The ostia were not visible from the isthmus and the presence of a small indentation in the fundus confirmed the suspicion of Y-shaped uterus. A hysteroscopy in the OR was performed using a 15Fr Storz® bipolar resectoscope. An incision in the fundic wall was made to correct the fundical indentation. Longitudinal incisions were performed on the fibromuscular constriction rings in the isthmic area and in both lateral uterine walls until the uterine cavity was triangular and symmetric. The depth of the incisions was not more than 5-7mm. The patient was discharged the same day, and no complications were referred.

Postsurgical evaluation was assessed by second-look 3D-TVS and hysteroscopy one month after the surgery. 3D-TVS and postsurgical hysteroscopy showed an improvement in the morphology of the uterine cavity and no residual septum nor intrauterine synechiae.

**Conclusions**

Hysteroscopic treatment in dysmorphic uterus is associated to a high rate of live births in women with history of reproductive failure. It is a minimally invasive technique with a low rate of complications and technically feasible for most of surgeons. However, further studies are needed to better demonstrate the impact of uterine remodeling on fertility outcomes.

### Attitudes Of Obstetrics And Gynaecology Residents On Laparoscopic Skills Training In A Government Training Tertiary Hospital

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#### Background

To determine the different attitudes and perception of obstetrics and gynaecology residents on Laparoscopic Skills Training.

#### Methods

This is descriptive comparative research where a survey questionnaire was used to assess the attitude and perception of the residents on Laparoscopic Skills Training.

#### Results

Thirty-three obstetrics and gynaecology residents were included in the study with a mean age of 30, majority were females (n = 31, 94%) and a near equal number of junior (n = 17, 52%) and senior residents (n=16, 48%).

Majority of residents (n = 29, 88%) used laparoscopic simulation and more than half performed minimally invasive surgery (MIS) (n = 19, 58%). Only 21% of the residents planned to practice laparoscopy after residency (n = 7).

The average hours the residents spent in simulation laparoscopic exercises was 11 hours and at least 1 hour per week with supervision from either the staff, fellow, or senior resident (76%). 94% of residents cited concerns of developing bad habits during unsupervised laparoscopic simulation exercises (n = 31). The reasons for using laparoscopic simulation include skill development (n = 31, 94%), proximity to the simulation lab (n = 30, 90%), free time (n = 28, 85%), recommendation of attending surgeon (n = 28, 84%) and requirement for rotation (n = 28, 84%). The most commonly cited barriers are lack of time due to workload and conflicting schedules (n = 20, 61%), restrictions during the covid-19 pandemic (n = 6, 18%) and location of the simulation lab (n = 4, 12%).

Among the expectant value constructs, only intrinsic interest utility value (r = - 0.390) showed statistical correlation suggesting a weak negative correlation with simulation use which suggests that as the level of enjoyment, likeness and satisfaction towards simulation and the value of mastering the skills increases, there seems to be a reduced time of simulation use. Hours of simulation use was significantly negatively correlated with self-efficacy for learning skills required to become proficient at MIS (r = - 0.390) and self-efficacy for learning sufficient MIS skills to perform procedures safely (r = - 0.351). A comparative analysis in motivations and experience with laparoscopic simulation and minimally invasive surgery between junior and senior residents showed no significant difference.

#### Conclusions

Laparoscopic skills training is essential in learning, developing and mastering the necessary knowledge and technical surgical skills in both laparoscopy simulation exercise and minimally invasive surgery. There was an improvement in the residents MIS skills with the laparoscopic simulation exercises with the short period of time they spent in the simulation.

**A case report of acute renal failure following laparoscopic bilateral salpingectomy with a comprehensive literature review**

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**Background**

Our aim is to present a rare case of acute kidney injury (AKI) following laparoscopic bilateral salpingectomy and evaluate current evidence with a comprehensive literature review.

**Methods**

Based on this case, a systematic literature review was conducted using electronic the databases of PubMed and Google Scholar to identify relevant studies. The keywords "acute renal failure", "laparoscopy", "complications" and "risk factors" were used to retrieve articles. Studies reporting cases or series of acute renal failure (ARF) following laparoscopy, as well as reviews discussing the pathophysiology and incidence of this complication, were included.

**Results**

Our literature search identified relevant 11 studies, that demonstrated the multifaceted landscape of risk factors, mechanisms, and outcomes. These studies underscore the intricate interplay between patient-specific factors (such as pre-existing renal pathologies, diabetes mellitus, hypertension, increased BMI, cardiovascular disease), anaesthetic nephrotoxic agents, pneumoperitoneal intra-abdominal pressure, operative blood loss, length of surgery, and the peri-operative fluid management. While laparoscopy offers inherent advantages with reduced surgical trauma and shorter hospital stay; evidence underlines potential renal insults stemming from increased intra-abdominal pressure and the absorption of carbon dioxide. Additionally, data from these studies highlight the pivotal role of vigilant peri-operative monitoring and judicious fluid administration to mitigate renal impairment and subsequent complications. We are presenting a rare case of acute kidney injury following laparoscopic bilateral salpingectomy for fertility treatment due to the presence of hydrosalpinges on a 28yo (Para 0) lady otherwise fit and well with ASA 1. Our patient had an uneventful procedure but 8 hours later she reported reduced urine output with dark brown urine. The subsequent urea and creatinine serum blood tests revealed a biochemical derangement with acute kidney injury (AKI). The post-operative ultrasound of the abdomen and pelvis, as well as retrograde pyelography, were normal. Her renal status deteriorated further therefore on Day 1 she underwent a repeat laparoscopy whereby a significant amount of reactive fluid (1100 ml) was drained from the peritoneal cavity and on Day 2 she had a cervical cerclage to contain a paracervical haematoma confirmed on CT imaging. At the same day she underwent haemodialysis and received a unit of RBCs. The 28yo lady continued being closely monitored by the renal team, receiving daily dialysis until she achieved full recovery 11 days following her initial procedure and was discharged home. This case confirms known literature knowledge with regards to the clinical manifestations and the underlying pathophysiology.

**Conclusions**

ARF following laparoscopy is a rare but potentially serious complication. Awareness of predisposing factors, early detection, and appropriate management are crucial for improving patient outcomes. Further research is needed to standardize diagnostic criteria, identify modifiable risk factors, and evaluate the efficacy of preventive strategies in reducing the incidence of ARF following laparoscopic procedures.

**Osseous metaplasia of the endometrium and successful hysteroscopic resection: a case report**

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**Background**

Endometrial osseous metaplasia is an uncommon clinical entity characterized by the presence of bone in the endometrium. It was first described in 1901. The incidence of this disease is estimated in 3 of every 10,000 women (0.03%), which corroborates the rarity of this entity. Various theories have been proposed and the most accepted theory is the metaplasia of the stromal cells into osteoblastic cells that produce bone. The symptoms are variable, and menstrual abnormalities, abnormal bleeding, pelvic pain, leucorrhoea or altered fertility have been reported.

**Methods**

We present a case of a 31-year-old female patient presented with secondary infertility. Vaginal ultrasound showed an increased echogenicity in the cervical canal and in the posterior uterine wall. Osseous metaplasia was suspected. A diagnostic hysteroscopy was performed, revealing multiple white spicules of bony material in the uterine cavity. An office operative hysteroscopy was then indicated performed with local anaesthesia (Mepivacaine 1%) administered by paracervical blocking. Saline solution was used as a distension media. No antibiotic or prostaglandins were administered. A 5.5mm hysteroscopy was used to remove all the bone fragments with a grasping forceps. The total duration of the surgery was 20 minutes. The patient did not express pain during the procedure (4 out of 10). There were no postsurgical complications. The pathological study confirmed that it was mature bone. After 6 months the patient became pregnant naturally. There were no postsurgical complications. The patient with secondary infertility had spontaneous conception 6 months after the procedure.

**Results**

Hysteroscopy was effective in the diagnosis and treatment of endometrial osseous metaplasia. Moreover, our patient with secondary infertility had a spontaneous conception 6 months after the procedure.

**Conclusions**

Osseous metaplasia may have varied presentations, and in cases of infertility, the cause could be explained by osseous tissue acting as an intrauterine device. The differential diagnoses of this condition are intrauterine contraceptive device, endometrial tuberculosis, malignant mixed Müllerian tumour, and retained foetal tissue. The diagnosis is suspected at ultrasonography and confirmed by hysteroscopy and histopathology. Hysteroscopy is considered to be the gold standard in diagnosis and management. Because most of the reported osseous metaplasia cases presented with infertility, the literature has shown good conception rates and pregnancy outcome after successful removal by hysteroscopy.

## A comparison of vaginal hysterectomy, laparotomy hysterectomy and laparoscopic hysterectomy in women with benign uterine disease

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### Background

Hysterectomy is one of the most common gynaecological operations worldwide. At present, several methods are available and minimally invasive techniques such as vaginal hysterectomy (VH), laparoscopically assisted vaginal hysterectomy (LAVH), total laparoscopic hysterectomy (TLH) and, more recently, robotic hysterectomy. Our study aims to compare the intraoperative and postoperative clinical results of three hysterectomy techniques in patients with non-malignant uterine tumours: vaginal hysterectomy (VH), laparotomy hysterectomy (LH) and total laparoscopic hysterectomy (TLH).

### Methods

A retrospective study was conducted in our obstetric gynaecology department at Bizerte university hospital between January 2019 and March 2024. In total, 277 women who underwent hysterectomy for benign uterine disease were divided into three different groups (150 LH, 42 TLH and 85 VH). Endpoints, including operative time, blood loss, intraoperative complication rate, first lift, postoperative complications, analgesic consumption and length of hospital stay, hospital cost were evaluated and compared between groups.

### Results

VH had the shortest operative time (62 min) and the smallest haemoglobin drop. However, there were technical problems with bilateral vaginal adnexectomy (4 cases out of 85) and one case with a posterior fibroid making extraction of the specimen difficult, and this group had a significantly higher rate of febrile complications such as urinary tract infections (18%) and infected hematoma in the vaginal slice 12% compared with LH (8%) and TLH (5%). The increase in inflammatory markers was higher in patients who underwent LH. TLH had a longer operative time compared to LH and VH (240 min vs. 90 min vs. 65 min), a low complication rate, the absence of serious postoperative complications and the lowest analgesic consumption. However, it had the highest blood loss, with laparoconversion in 6 cases (14% of cases). Postoperatively, the mean time to relief of flatulence (36 vs. 32 vs. 28 hours) and analgesic requirements were significantly lower with the vaginal route compared with the laparoscopic and laparotomic routes. There were no differences in mean haemoglobin levels with the VH versus the TLH and LH (11.7 vs. 10.6 vs. 10.4 g/dL), postoperative complications (9.4 vs. 13.4%, 8.6%) or hospital stay (2.5 vs. 4.5 vs. 3.5 days). The TLH had the longest operative time (250 min), and severe intraoperative complications occurred only in this group.

### Conclusions

According to our results, in women with benign uterine pathology, TLH and VH appear to be the preferred hysterectomy techniques of our team. VH had the shortest operative time and the lowest haemoglobin drop, making it an appropriate method for women for whom the shortest duration of surgery and anaesthesia is optimal. TLH is a versatile procedure, combining the advantages of the VH and LH approaches, and is preferable in cases where adnexectomy is required and it should be strictly performed only by highly experienced laparoscopists and for well-selected patients, allowing better short-term convalescence, but it is more expensive than abdominal and vaginal hysterectomy.

**Surgical management of patients with granulosa cell tumours of the ovary: a retrospective study with a review of the literature**

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**Background**

Granulosa cell tumours (GCT) are hormone-secreting, rare and potentially malignant stromal tumours of the sex cords of the ovary. They are unique in their presentation and histological features. The aim of this study is to describe the different clinical forms of patients with GCT and to evaluate their surgical management taking into account fertility preservation in young patients.

**Methods**

This retrospective study, conducted from 2018 to 2024 in the obstetrics and gynaecology department of Bizerte university hospital, collected five cases of gct. patient characteristics, clinical presentation, radiobiology, anatomopathology and surgical management with or without fertility preservation were studied. The literature review was carried out on PubMed and Cochrane from 1996 to 2024.

**Results**

Five patients presenting with gct, four of which were of the adult type and one of the juvenile tumour types (jt), were identified. The median age at diagnosis was 46.8 years (15-65), and the clinical presentation was not very specific in 22% of cases. The radiological appearance was that of a unilateral adnexal mass, cystic or mixed, with a median size of 7 cm (6-30). Marker assays included Ca 125, inhibin B and oestradiol. The diagnosis was made at stage I in 80% of patients. Initial surgical treatment consisted mainly of unilateral adnexectomy (20%), bilateral adnexectomy (80%), peritoneal cytology and multiple parietal and Douglas biopsies. Fertility preservation in a 15-year-old girl with jt was achieved by preserving the uterus and contralateral ovary. Only one patient presented with nodules of peritoneal carcinosis, which was treated surgically followed by chemoradiotherapy and hormone therapy. Overall and recurrence-free survival was 80% at 6 years. Accurate surgical staging is important for treatment planning. These tumours therefore have a good prognosis but require prolonged surveillance. the girl is monitored by measuring inhibin and anti-mullerian hormone. Finally, the prognostic factors identified for recurrence were FIGO stage, presence of residual tumour and tumour size.

**Conclusions**

GCT is a rare neoplasm with different behaviour. Histopathological diagnosis requires great expertise due to age, treatment modalities and prognosis. They generally have a good prognosis, but recurrence is very common, even several years after treatment. This is why, although fertility preservation techniques can be applied to achieve pregnancy, close monitoring is necessary for early identification of recurrences. After completion of the family, hysterectomy and adnexectomy are strongly suggested.

### Placental location and reproductive outcome in patients with septate uterus

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#### Background

Septate uterus (SU) is the most common uterine anomaly and is often associated with adverse pregnancy outcomes. One of the proposed mechanisms for poor reproductive outcomes in patients with SU is inadequate blood supply to the developing embryo/foetus, if implantation occurs on the septum. Fedele et al. (1993) in a small study of 12 pregnancies in eight patients suggested that miscarriage is related to septal implantation. In theory, if the placenta implants in a normal area of the endometrial cavity adverse pregnancy outcome is less likely to occur. To our knowledge there is no published data to confirm this theory. The objective of this study is to determine if placental location in relation to the septum location can explain the variable reproductive outcomes reported in the literature in patients with SU.

#### Methods

This retrospective cohort study included 114 patients who had a previous live birth and subsequently were found to have SU during work up for reproductive failure. The patients presented to the clinic in the period between 2005-2022. They subsequently presented with secondary infertility (98.3%) or recurrent pregnancy loss (1.7%). Forty-two patients (36.8%) presented with both secondary infertility and recurrent pregnancy loss. Diagnosis of SU was suspected on transvaginal 3D ultrasound scan and was confirmed on a diagnostic hysteroscopy. The type of SU was reported according to the American Fertility Association classification of Müllerian anomalies (AFS 1988) and subsequently reclassified according to ESHRE/ESGE classification of Müllerian anomalies (2013). Placental location during pregnancy that resulted in live birth was determined by reviewing the anatomy ultrasound scan reports

#### Results

Mean ( $\pm$ SD) age (years) of the population studied was  $32.7\pm 4.3$ , mean BMI ( $\text{Kg}/\text{m}^2$ ) was  $28.9\pm 23.0$ , and mean duration of infertility (years) was  $2.2\pm 1.7$ . Anatomy ultrasound scan report revealed that placental location was not completely on the septum area (fundal region) in 112 patients (98.2%). Placental locations were anterior in 55 patients (48.2%); posterior in 37 patients (32.5%); and anterolateral or posterolateral in 4 patients (3.5%); anterior, posterior, and lateral in one patient (0.9%); lateral in one patient (0.9%); and anterior and posterior in 3 patients with twins (2.6%). Placental location was fundal in 2 patients (1.8%). In one of these two patients, the pregnancy ended in severe preterm birth at 28 weeks gestation. Placental location was anterior fundal or posterior fundal in 11 patients (9.6%). In three of these patients, severe preterm birth occurred at 26, 29, 30 week-gestation. SU was complete septate in 5.3% of patients and partial septate uterus in 94.7% of patients. The mean mid fundal protrusion length on hysteroscopy of  $18.3\pm 8.9$  mm.

#### Conclusions

In patients with SU, placental location during pregnancies that ended in live birth is usually in a healthy area away from the septum location.

**A retrospective study on complications of diagnostic and operative hysteroscopy and how to prevent them**

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**Background**

Hysteroscopy is a minimally invasive gynaecological surgical or diagnostic procedure that is indispensable and exciting in modern gynaecological practice, but it is not without its complications. Although these are relatively rare, ranging from 0.95 to 13.6%, and occur more often in operative hysteroscopy than in diagnostic hysteroscopy, knowledge of them remains essential for every practitioner. The aim of our study is to identify the possible complications of hysteroscopy and how to prevent, minimize or avoid them.

**Methods**

This is a retrospective study of hysteroscopy complications in three hundred patients collected between January 2020 and January 2024 at the Bizerte obstetrics and gynaecology department.

**Results**

Complications in our series are estimated at 14% and can be divided into two groups of roughly equal occurrence: 7.3% due to dilatation and passage of the uterine cervix (2% cervical laceration, 3% creation of a false cervix, 1% perforation, 1,3% haemorrhage due to the impossibility of passing through the internal orifice, and 6.7% due to the surgical technique itself (2.2% uterine perforation, 0.5% fluid overload, 4% infection ranging from endometritis to tuboovarian abscess. No uterine rupture or thermal or mechanical trauma to the internal urinary or gastrointestinal tracts was found. Complications related to uterine distension devices such as glycolle (around 0.1%) remain the most serious. The gynaecologist performing hysteroscopy must be well informed about typical complications. The discovery and prompt intervention of such complications could avoid undesirable consequences for the patient and the legal problems that could ensue. It is only by observing safety rules that minor incidents can be prevented from turning into serious accidents, and morbidity kept to a minimum. The ways of preventing increased blood loss include avoiding deep resection close to the isthmus/cervix, coagulating severed vessels, limiting distension pressure and interrupting resection in the event of increased bleeding, and inserting and blocking the balloon catheter in utero in the event of heavy bleeding. To prevent the risk of gas embolism, airless perfusion systems and a continuous flow of fluid are essential, particularly during resectoscope insertion. Care must be taken to avoid air bubbles during instrument changes and tissue removal, and CO2 saturation must be monitored.

**Conclusions**

Hysteroscopy has now become the gold standard as a diagnostic and therapeutic technique for benign intracavitary uterine lesions. However, operative HSC has its limitations, depending on the situation and volume of the lesions, and is not without complications.



### Clinical outcomes of Laparoscopic colposuspension: experience of 37 consecutive cases

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#### Background

Laparoscopic colposuspension has gained popularity as an alternative to the tension free vaginal tape due to the complications associated with mesh. The aim of this study was to evaluate the success rates of laparoscopic colposuspension as a mesh-free surgical alternative for treatment of stress urinary incontinence.

#### Methods

Data was collected prospectively from patients who opted to have their stress incontinence corrected with laparoscopic colposuspension. The procedures were completed by two surgeons with placement of two Burch sutures on either side. ICIQ-UI and ICIQ-OAB questionnaires were completed pre and postoperatively. All patients had a urodynamic diagnosis of urodynamic stress incontinence (USI) or mixed USI and detrusor overactivity. All cases were discussed at the pelvic floor multidisciplinary team meeting prior to listing. Success rate was defined as patients reporting an improvement in their symptoms on a global score (PGI-I) or an improvement in the ICIQ-UI scores.

#### Results

37 patients underwent this procedure between December 2018 and February 2024. The mean age was 49 (range 32-72). The mean BMI was 28(range 18-39). 88% had urodynamic diagnosis of USI and 12% had mixed detrusor overactivity and USI. 21%(n=8) had undergone previous continence surgery. 7 patients sustained bladder injury repaired intraoperatively without sequelae; these cases were within the initial learning curve of the surgeons. Mean blood loss was 100 ml. Two patients had postoperative urinary retention which improved after 3 months.

The mean preoperative ICIQ-UI score was 17(range 11-24), and the mean ICIQ-OAB score was 8 (range 3-17). One patient was lost to follow-up. Of the 36 patients who had postoperative follow-up, the mean ICIQ-UI score was 11 (range 0-21). The mean change in ICIQ-UI scores was 7 (range 0-21). The overall subjective success rate was 72%.

50%(n=18) of patients were seen at 3 months with mean ICIQ-UI scores of 12(range 4-21). 88% of this cohort reported improvement in their symptoms and 12% reported no change.

27%(n=10) of patients were seen at 6 months with mean ICIQ-UI scores of 9 (range 4-20). 95% reported an improvement and 5% no change.

27%(n=10) of patients attended follow-up at 12 months with mean ICIQ-UI scores of 12 (range 0-20). 88% of this cohort reported improvement and 12% reported no change.

16%(n=6) needed further continence surgery, all patients had urethral bulking injections. 22%(n=8) were prescribed antimuscarinics or beta-3 agonists to improve pre-existing or denovo overactive bladder symptoms. 5% needed self-catheterisation for more than 3 months for urinary retention.

#### Conclusions

The overall subjective success rate of laparoscopic colposuspension in this series was 72%. 5% needed self-catheterisation for more than 3 months. 15% of patients needed further surgery. Laparoscopic colposuspension is a safe and effective non-mesh surgical alternative to treat stress incontinence.

**ABST-0201 - P080**

**ePoster and Video Presentations**

**Utility of hysteroscopy in patients with recurrent pregnancy loss. Experience in our centre.**

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### **Background**

Objectives: To evaluate the prevalence of uterine abnormalities detected by hysteroscopy in patients undergoing follow-up for recurrent pregnancy loss.

### **Methods**

A descriptive study was conducted collecting data from all women undergoing hysteroscopy with a history of infertility between January 2019 and June 2023 at our centre. The collected variables included age, previous pregnancies and spontaneous miscarriage, indication for hysteroscopy, hysteroscopic diagnosis, pathology results, positivity for cd138, subsequent fertility treatment, subsequent pregnancy, and live births.

### **Results**

Out of 87 patients included in our study, only 5 met the criteria for recurrent pregnancy loss.

The mean age of these patients was 36 years (range 28-39 years).

The most frequent indication for hysteroscopy was recurrent spontaneous miscarriage, observed in 60% of the patients. In the remaining 40%, the indication was for endometrial alterations visualized by ultrasound. These alterations were excised during the same surgical procedure. In the hysteroscopic diagnosis and pathological anatomy of 2 out of 5 patients, we found a dissociation in endometrial maturation or synechiae. Twenty percent tested positive for CD138 without evidence of endometritis observed in hysteroscopy. The patient was successfully treated with subsequent negative biopsy.

In 2 out of 5 patients, the pathological anatomy result showed simple hyperplasia without atypia. The remaining 20% had a functional endometrium.

Forty percent of the patients underwent subsequent fertility treatment, resulting in a live births in 100% of those undergoing In vitro fertilization

### **Conclusions**

According to our collected data, only 8% (5 patients) were indicated for recurrent pregnancy loss and benefited from hysteroscopy for the study of the uterine cavity and targeted biopsy.

Our results indicate the utility of including hysteroscopy in the evaluation of patients with recurrent spontaneous miscarriage, as well as identifying and effectively treating possible underlying uterine abnormalities.

This could help improve reproductive outcomes and provide greater support to couples facing the emotional and clinical burden of recurrent miscarriages, as it is a condition that appears in up to 4% of couples in infertility clinics.

### The role of bilateral hypogastric artery ligation in postpartum haemorrhage

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#### Background

Postpartum haemorrhage (PPH) is a serious accident. Despite the identification of certain risk factors, this complication remains unpredictable and remains the most common cause of maternal mortality. The management of PPH has several therapeutic weapons. His surgery is variable and bilateral internal iliac artery ligation (BIIAL), one of the conservative techniques, is the most used with promising results. We have tried to identify through our study its indications, its technique and to specify its results and limits.

#### Methods

We carried out a retrospective descriptive study of 51 cases of postpartum haemorrhage which required a BIIAL collected in the department of obstetrics and gynaecology of Bizerte over a period of eight years from January 1st, 2010, to December 31<sup>st</sup>, 2017.

#### Results

The average age of our patients was  $32\pm 7$ . The average parity was  $2.6\pm 1$ . The factors of uterine overdistension were present in 33% and long labour in 11% of cases. No risk factors were identified in 23.6%. The main cause of PPH was atony in 69% followed by genital lesions in 12% of cases and haemostasis disorders in 10% of cases. The surgical intervention time was  $39\pm 3$  minutes and the combination of one or more surgical procedures was performed like suture uterine reparation in 5.9% of patients with uterine rupture before BIIAL, vascular ligation was associated in 88% of cases and endo-uterine haemostatic suture in 49% of cases. If PPH was considered seriously severe, BIIAL was preferred as the first line of surgical procedure in 12% of cases. We had 90.2% of successful outcome and surgical complications were found in 9.7% of cases.

#### Conclusions

Bilateral internal iliac artery ligation is a lifesaving procedure that remains a delicate but effective technique in the management of severe HPP. It avoids hysterectomy in the absence of the arterial embolization technique. Its complications are weak under the guise of knowledge of anatomy and the respect of a rigorous surgical procedure.

### Endometriosis-associated malignant transformation arising in laparotomy section scar

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#### Background

Endometriosis-associated malignant transformation in abdominal surgical scar is a very rare and aggressive phenomenon. The aim of our current study was to provide a clinical overview, focusing on risk factors affecting survival.

#### Methods

In January 2024, a case study of 30-year-old G0P0 patient presented to the gynaecology service at our clinic with worsening pain, discomfort involving the lower abdomen during each menstruation cycle, and abdominal swelling. She underwent a low transverse laparotomy section via the Pfannenstiel incision to remove her left ovary in 2021. Three years later, she complained of pain and swelling of her lower abdominal wall. Evaluation with ultrasonography of the pelvis revealed a 10X7X5cm lower abdominal wall mass. The excision of the described parietal lesion was decided.

#### Results

During surgical intervention, the abdominal wall, between the aponeurosis and the rectus abdominis muscle, is defined as an endometrioid mass measuring 10X7X5 cm, with a dense consistency, represented by several nodular infiltrates. Performed a wide surgical excision with abdominal wall reconstruction.

Gross histopathological examination revealed endometrioid adenocarcinoma, grade 1. Immunohistochemical investigation revealed a positive tumour cell reactions for CK7, PAX8, ER, PR, and VIMENTIN markers. CD10 was positive in the majority of cells, but CD10-positive endometrial stroma did not detect. CA125 was focally positive. GATA3, CK20, TTF1, NapsinA and CDX2 are negative. Ki67 was positive in 10% of cells (areas of high expression). Evaluation with a whole-body positron emission tomography/computed tomography (PET/CT) scan was performed, and the projection of the anterior wall of the abdomen showed an increased inclusion of the isotope. SUVmax=3.5. The uterus was without deformation and focal pathology as determined by CT semiotics. An increased inclusion of the isotope is reflected in the projection of the cavity SUVmax=6.09.

The patient underwent curettage of the uterine body, and the received material was sent for histopathological examination were diagnosed endometrial intraepithelial neoplasia (EIN).

Patients need a multidisciplinary approach with gynaecologic and medical oncologists and surgeons in order to plan the most adequate patient treatment.

#### Conclusions

The case highlights that detailed careful evaluation of patient history is essential focusing on previous surgery and symptoms suggestive of endometriosis: repeated occurrence of endometriosis nodules at CS scar and gynaecological surgeries, volume changes of the nodules. or cyclic pain. We recommend that patients with a history of gynaecological surgeries complicated by scar endometriosis undergo total wide excision with a free surgical resection margin, if possible. Furthermore, the possibility of malignant transformation should be considered, and close follow-up is needed. For earlier diagnosis, clinicians should have high susceptibility level. Additional studies need to be conducted to develop early screening and treatment approaches for malignant transformation of endometriosis.

### Three Consecutive Cases of Intravenous Leiomyomatosis: A Single Institution Experience Over Three Years

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#### Background

Intravenous leiomyomatosis (IVL) is a rare pathology, characterised by proliferation of benign smooth muscle cell tumour beyond the uterus, involving pelvic veins, vena cava, and occasionally the heart. Approximately 300 cases have been reported, so far. Complete surgical removal is considered to be the most effective treatment. Some studies showed continued growth of incompletely resected IV tumours from 7 months to 15 years after surgery. In case of residual disease and/or high recurrence risk adjuvant hormonal and anti-oestrogen therapy is proposed by some authors.

#### Methods

We have reviewed medical records of three cases of IVL at our institution.

#### Results

All three patients were premenopausal and have presented with the symptoms of AUB, pelvic pain and pelvic mass, one patient exhibited left lower limb oedema. Among them, two had undergone prior uterine surgeries (caesarean section and myomectomy). Preoperative MRI was performed in two patients: in one case a pelvic mass, extended from the posterior uterine wall up to the mesogastrum, showing the tortuous left gonadal vein with winding cord-like filling defects. In other case MRI showed enhancing projections from the leiomyoma, extending to the left common, external and internal iliac veins. In this patient additionally an abdominal and chest CT-angiography was performed, considering the differential diagnosis of malignancy and IVL, as experienced in a previous case. The imaging showed no extension of the disease. The transvaginal ultrasound of third patient showed large uterine myomas, no additional imaging was ordered preoperatively. The tumour marker CA125 was obtained before surgery in all patients, it was elevated in two cases, in the patient with lesser extension of the disease, it was normal. In all three cases total hysterectomy with bilateral salpingo-oophorectomy (THBSO) was performed. In one case, with ovarian vein involvement, left infundibulo-pelvic ligament was dissected up to the level of the renal vein, and the whole mass of the intravenous disease was removed. In another case, the common iliac phlebotomy and removal of the tumour masses was performed. In the third case THBSO was done along with the removal of affected rightparametrial venous plexus. The echocardiography was performed before hospital discharged in two cases. Patients were consulted to be followed-up by CT-angiography in 6 months. Up to date, no signs of disease progression are observed in all three patients.

#### Conclusions

IVL presents with nonspecific symptoms, posing challenges in early diagnosis and management. Surgical excision remains the cornerstone of treatment, with complete resection associated with improved outcomes. Ovariectomy may offer additional benefit by reducing oestrogen/progesterone levels, potentially inhibiting tumour growth. Given the rarity of IVL and its life-threatening risks, further research is warranted to explore optimal treatment strategies, although conducting randomized controlled trials presents significant challenges.

**Techniques for retrieval of large specimen at laparoscopic hysterectomy**

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**Background**

It is well established that minimally invasive surgery has several advantages over open surgery including reduced post operative pain and quicker return to normal activity. The proportion of hysterectomies performed laparoscopically in England has been increasing. One of the major factors determining feasibility for a minimal access approach is the size of the uterus. Large fibroid uteri present many surgical challenges including the conundrum of how to retrieve a large specimen safely.

We describe the application of several different tissue retrieval techniques which can be utilised in this scenario with the aim of providing efficient solutions to this common surgical challenge.

**Methods**

A retrospective analysis was performed of 50 patients who underwent laparoscopic hysterectomy at a district general hospital in London for a large uterus. A large uterus was defined as greater than 12-week size or 500g. The following surgical techniques were utilised and are presented in detail:

1. Laparoscopic in bag morcellation.

This technique is well described in the literature. The uterus is placed in a purpose designed endoscopic bag and a power morcellator used inside this.

2. Using a mini wound retractor abdominally.

A mini-Alexis wound retractor is inserted via a 10mm laparoscopic trocar incision which is slightly extended. The specimen is pulled up to the surface and dissected with a scalpel enabling it to pass through.

3. Intraperitoneal scalpel morcellation.

A scalpel is inserted directly into the peritoneal cavity via a small abdominal incision and the uterus bisected under laparoscopic vision. Each piece is then retrieved vaginally.

4. Vaginal morcellation techniques-with or without the use of a wound retractor.

The uterus is bisected with a scalpel in the vagina. Alternatively, a wedge resection or coring method is used. In some cases, an Alexis retractor was used vaginally.

The average surgical time, blood loss and complications for each method was analysed.

**Results**

Contained morcellation was performed in 66 % of the cases. Removal of specimen via abdomen with mini wound Alexis's retractor was performed in 20% of cases and remaining cases by laparoscopic scalpel bisection and vaginal extraction. Surgical time was prolonged in an average by 12 minutes with contained morcellation. One case had bag rupture following which specimen was removed by vaginal route. None of the patients had any complications. Histopathology of all the specimens was reported as benign leiomyoma or adenomyosis and none had pre cancer or cancer.

**Conclusions**

Retrieval of large uteri can be a challenge in minimally invasive surgery however, several options are available to enable the procedure to be safely and efficiently completed without the need to convert to an open approach. With greater exposure and training in these techniques surgeons will have reliable options to consider when faced with this issue enabling a minimally access route to be considered when previously thought not possible.

### Can the robot really reduce complications? A single surgeon's experience over two years

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#### Background

Robotic surgery has become more available for minimally invasive gynaecology (MIGS) and endometriosis surgery. Published data remains mixed on whether Robotic surgery offers an advantage over conventional laparoscopy<sup>1-3</sup>. SK began using the DaVinci Xi in March 2022 at a tertiary endometriosis and MIGS referral centre. This audit presents data on the centre's robotic caseload over two years.

#### Methods

The CEMIG London patient database was searched for cases between 01/01/2022 to 01/01/2024 comparing laparoscopic versus robotic procedures with proportion of caseload, disease classification, rectovaginal/bowel procedures and intra/postoperative complications.

#### Results

There were 243 Laparoscopic and 152 Robotic-assisted procedures, the proportion of robotic cases increased over time (2022 31.9% 2023 45.5%). Robotic-assisted cases were higher in endometriosis severity by several classification systems (#ENZIAN C3 38:28%, VNESS 4 POD 28:17 %, AAGL 4 76:58%). The proportion of shaves, discoid and segmental resections was higher in the robotic surgery cohort (65.8:46%). Although there was a higher percentage of all post-operative complications in the robotic cohort, the percentage of <sup>3</sup>Clavien-Dindo III complications was lower (0.6:2.47%).

#### Conclusions

The increase in proportion of robotic cases over the two years is accounted for by the learning curve experienced by SK. The increased complexity in this cohort is perhaps a reflection on how the robotic approach lends itself to multidisciplinary surgery. Although the sample size is small, without formal statistical analysis, the reduced severe complication rate is a positive finding.

**ABST-0238 - P162**

**ePoster and Video Presentations**

**Robotic-assisted laparoscopic hysterectomy for benign pathology: first year of the implementation of a robotic program**

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**Background**

To describe robotic-assisted laparoscopic procedures performed in the first year of implementation of robotic surgery for benign conditions at our department and hospital.

**Methods**

Retrospective analysis of clinical files of patients undergoing robotic-assisted laparoscopic procedures from March/2023 to March/2024 reporting characteristics of the population (age, body mass index-BMI, previous abdominal surgeries), type of procedures and complications classified according to Clavien-Dindo classification.

**Results**

During this period, on average, only one operative time was allocated for benign gynaecological surgery with robotic support. Thirty-seven patients' records were analysed. Mean age of the population was  $48.6 \pm 9.1$  years. Primary surgical indication was abnormal uterine bleeding (65%) related mainly to myomas, followed by oncological risk reduction surgery (16%). Mean BMI was  $27.8 \pm 4.7$  kg/m<sup>2</sup>, and 51% had at least one abdominal surgery. No conversion to conventional laparoscopy or laparotomy was reported. Regarding the procedures performed, 54% were total hysterectomies with bilateral salpingectomy, and 43% with bilateral salpingo-oophorectomy. One case of a subtotal hysterectomy with sacrocervicopexy using a synthetic prosthesis was performed. Median weight of surgical specimens was 126g (maximum 750g), progressively higher in accordance with the surgeon's learning curve. Median length of postoperative hospital stay was 1 day. Complications occurred in 4 patients: two Clavien-Dindo grade 2, one case of umbilical wound infection treated with antibiotic therapy and one erythrocyte concentrate transfusion (in a patient with preoperative anaemia) and two Clavien-Dindo grade 3, both related to infected hematomas treated with antibiotic therapy and culdocentesis.

**Conclusions**

Since the beginning of the robotic program at our hospital and according to the initial planification there was an increase in the number and difficulty of gynaecological procedures performed by this approach over time. Our data and experience corroborate general advantages attributed to robotic approach over conventional laparoscopy and included high-resolution three-dimensional imaging, a broader amplitude and more precise movements and finally the enhanced ergonomics for the surgeon with an important impact in fatigue reduction especially for longer and more complex surgeries. Considering predictable difficulties and the learning curve associated with implementation of a new surgical approach there were no significant adverse events nor longer hospital stay and we expect that growing experience will enhance advantages for the patients.



**Awareness needed for bleeding disorders in heavy menstrual bleeding: a nationwide survey among gynaecologists and haematologists in the Netherlands**

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**Background**

Heavy menstrual bleeding (HMB) is a common problem existing in almost 30% of women worldwide. While HMB may be attributed to anatomic causes like polyps, myomas or adenomyosis, it can also be due to non-anatomical disorders like iatrogenic, ovulatory dysfunction or coagulopathy. An underlying bleeding disorder has been described as a cause of HMB in 10% to even 62% of women suffering from HMB. There appears to be a significant underdiagnosis of bleeding disorders in individuals with HMB. The primary objective of this study is to evaluate the awareness and diagnostic practices regarding underlying bleeding disorders in patients with heavy menstrual bleeding among gynaecologists and haematologists in the Netherlands.

**Methods**

An online survey, based on literature and guidelines and peer-reviewed by an expert panel, was conducted between July and October 2023. Two distinct versions of the survey were distributed, one tailored for gynaecologists and one for haematologists. The survey comprised of 3 main sections: 1) general information, 2) organization of care, and 3) analysis and diagnostics in HMB with a specific focus on the attention for underlying bleeding disorders. The survey was sent by invitation, containing an anonymous e-mail link, to gynaecologists and haematologists in the Netherlands.

**Results**

We received 241 responses: 166 gynaecologists and 75 haematologists. Ninety-five percent of gynaecologists consult women with HMB, with 1 on 5 having a specialized HMB clinic. Thirteen percent of gynaecologists participate in multidisciplinary team meetings about coagulation disorders, and in thirty-seven percent of gynaecologists, HMB is discussed in this team. The ISTH BAT bleeding questionnaire is never (75%) or seldom (18%) used by gynaecologists, and more than half of gynaecologists (62%) sets up seldom-never any coagulation tests in the laboratory. Approximately 40% of gynaecologists greatly underestimate the prevalence of coagulation disorders in women with HMB. They suspect an underlying bleeding disorder in less than five percent of cases of HMB. Only five percent of gynaecologists frequently refer HMB patients to haematologists.

Sixty-two percent of haematologists participate in multidisciplinary team meetings on coagulation disorders. In all these cases patients with HMB are discussed in this team. The ISTH BAT bleeding questionnaire is used by ninety-two percent of haematologists, and almost all haematologists (95%) set up coagulation testing. Forty-seven percent of haematologists suspect a bleeding disorder in 5-15% of HMB patients, while 30% suspect it in 15-30% of cases.

**Conclusions**

This study reveals a concerning underestimation and underdiagnosis of underlying bleeding disorders in patients with HMB among Dutch gynaecologists. Screening tools like a bleeding score, laboratory testing or multidisciplinary team discussions are not routinely utilized. This underlines the need for enhanced awareness and guidance regarding bleeding disorders in the diagnostic workup for patients with HMB, as well as the importance of close collaboration between gynaecologists and haematologists.

### Presurgical treatment of uterine myomas with the GnRH-antagonist relugolix in combination therapy

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#### Background

To evaluate if a preoperative medical treatment with the Gonadotropin hormone-releasing hormone (GnRH) antagonist relugolix in combination therapy in patients with abnormal uterine bleeding associated with uterine myomas may translate in a safer surgical procedure.

#### Methods

Thirty-one patients scheduled for surgery underwent a pre-operative three-month course with a daily oral tablet of 40 mg relugolix, 1 mg oestradiol, and 0.5 mg norethindrone acetate. Haemoglobin levels, uterine volumes, largest myoma diameter, and Visual analogue scale (VAS) score for dysmenorrhea, pelvic pressure and bleeding discomfort, and indication to surgery were evaluated at study enrolment and at the end of therapy.

#### Results

Mean haemoglobin levels increased by 25%, from  $9.3\pm 1.1$  to  $11.6\pm 1.7$  g/dL after three months ( $p<0.001$ ). Uterine volume decreased from  $380.7\pm 273.4$  mL to  $281.7\pm 198.7$  mL ( $p<0.001$ ), whereas the diameter of the largest myoma decreased from  $6.4\pm 2.8$  cm to  $5.5\pm 2.2$  cm ( $p<0.001$ ). Four patients (13%) underwent a less invasive surgical procedure, whereas in eight patients (26%) surgery was avoided after medical therapy. Dysmenorrhea score improved from  $4.7\pm 3.2$  to  $0.6\pm 1.1$  ( $p<0.0001$ ). Pelvic pressure score decreased from  $5.9\pm 2.1$  to  $3.1\pm 2.3$  ( $p<0.0001$ ), whereas bleeding discomfort decreased from  $7.4\pm 3.0$  to  $0.4\pm 1.6$  ( $p<0.0001$ ).

#### Conclusions

Preoperative GnRH-antagonist therapy improves surgical safety by enhancing haemoglobin levels, shrinking uterine and myoma size, and alleviating symptoms, potentially enabling less invasive procedures or avoiding surgery altogether in a quarter of cases.

**Reflections of a Fellow: The Northern Ireland Advanced Laparoscopic, Vaginal and Benign Gynaecology Surgical Fellowship**

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**Background**

This Fellowship, established for over 10 years, is decided by competitive interview for ST6 & ST7 trainees. Led by a faculty with advanced training and international experience, it provides training and mentorship in advanced benign laparoscopic and vaginal surgery.

**Methods**

To outline the successful framework this Fellowship employs, range of procedures taught, and its importance for the region in training and futureproofing gynaecology services.

**Results**

Skills are developed through surgical mentorship ensuring progression to independent practice. In the initial six-months, I have performed 166 cases as primary surgeon. Laparoscopic case mix includes: Total laparoscopic hysterectomy +/-Uterosacral plication (24), excisional surgery for mild-moderate endometriosis (11), adnexal surgery (20). Vaginal cases include: Vaginal hysterectomy +/- McCalls culdoplasty (23), native tissue colporrhaphy (22), Sacrospinous ligament fixation (8). Open cases include: TAH (24), myomectomy (2), adnexectomy for large masses (5). Opportunity is given to attend hysteroscopy sessions, as well as perform hysteroscopic resections (TCRE/TCRF – 27 cases).

**Service Improvement:**

We have re-introduced a day-case hysterectomy pathway and are reviewing MRI's use in endometriosis surgical planning.

**Teaching Role:**

Education of other trainees through direct surgical supervision, dry lab training and regional teaching. Lead facilitator for a postgraduate 'Hands on Laparoscopic Adnexal Surgery Course'

**Conclusions**

The success of this Fellowship is a result of its framework & dedication from mentors. It provides an excellent opportunity and a vital role to in developing surgical skills. Its ethos is to ensure a continuity/sustainability in providing a high-quality benign gynaecology service through the provision of highly trained gynaecologists.

**ABST-0270 - P247**

**ePoster and Video Presentations**

**Laparoscopic management of ectopic pregnancy: An assessment of confidence, competence and experience amongst senior trainees**

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**Background**

Competence in laparoscopic management of ectopic pregnancy must be demonstrated prior to obtaining a CCT. This survey aimed to assess the training opportunities, confidence and competence in this procedure among ST5 to ST7 trainees in the Northern Ireland Deanery.

**Methods**

A 7-question online survey was distributed to trainees of ST5 and above analysing a 6-month period of training. Anonymous responses underwent thematic analysis.

**Results**

Survey response rate was 78% (18/23), capturing grades ST5-7, including 4 'out of program undertaking advanced gynaecological training'. 50% (9/18) of respondents reported a particular interest in gynaecology. 8 trainees had not performed any laparoscopic salpingectomies in this training year. Only 3 had performed this procedure independently. 85% felt Obstetric on-call commitments was the greatest barrier to gaining experience. 38% felt supervisors were reluctant to let trainees operate and half of trainees reported inadequate gynaecological experience in general. Half of trainees felt less than 50% of consultants in their current unit were capable of supervising and teaching laparoscopic ectopic surgery. One-third felt they would be unable to independently manage an ectopic pregnancy laparoscopically by CCT.

**Conclusions**

Only 16% of Senior Trainees reported independent capability in managing an ectopic pregnancy laparoscopically. Of greater concern, one third felt they would not achieve this prior to CCT. Obstetric on-call commitment appears to be a major barrier to training. An observed lack of supervising Consultants per unit with the skill to perform and teach laparoscopic ectopic management also seems to be a concerning hindrance to training.

**Title: Hysteroscopy as an Initial Study in Infertility First Author: Ugalde, Alejandro.**

*Alejandro Baruch Ugalde Meza*<sup>1</sup>

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### **Background**

Female infertility poses a significant challenge for many couples worldwide, with multiple factors contributing to this complex condition. Among the various diagnostic tools available, hysteroscopy has emerged as a fundamental technique in assessing women's uterine health. This endoscopic technique allows for direct visualization of the cervical canal and uterine cavity, facilitating the detection of structural abnormalities and evaluation of potential factors contributing to infertility.

In this paper, we explore the relationship between female infertility and hysteroscopy, emphasizing the latter's importance in identifying and treating uterine conditions that may affect women's reproductive capacity. We analyse the various hysteroscopic findings associated with infertility, as well as the benefits of hysteroscopy in treatment planning and improving pregnancy rates in women with fertility issues.

Objective: To highlight the importance of hysteroscopy as an initial study in infertility.

### **Methods**

Diagnostic hysteroscopies were performed on 58 patients presenting with infertility. As part of the initial evaluation, these patients underwent diagnostic hysteroscopy as part of the first-line study. This group of patients, aged between 20 and 35 years, attended their first consultation with a diagnosis of infertility. The decision to implement hysteroscopy as a first-line study aimed to evaluate its significance in the initial assessment.

### **Results**

Our findings revealed that 44 patients, representing 75.86%, presented uterine pathology associated with infertility. Among these pathologies were endometrial polyps in 9 patients (20.45%), uterine adhesions in 5 patients (11.36%), uterine fibroids in 16 patients (36.36%), septate uterus in 2 patients (4.54%), cervical stenosis in 4 patients (9.09%), and ostium uterine stenosis in 8 patients (18.18%).

### **Conclusions**

In the assessment of infertility in women of reproductive age, we conclude that hysteroscopy should be included as part of the initial study for patients with infertility. Our study found that up to 3 out of every 4 patients suffering from infertility present uterine pathology that can be visualized and treated through office hysteroscopy. It is important to highlight that hysteroscopy in the initial study improves the diagnostic timeframe, which is invaluable for patients experiencing infertility, as some may undergo years of assessment, delaying timely fertility diagnosis and treatment.

### Laparoscopic surgery of endometrial carcinoma with sentinel lymph node biopsy

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#### Background

Endometrial cancer is the most common carcinoma of the female reproductive organs in developed countries. Lymph node involvement is one of the most important prognostic factors in endometrial cancer. Sentinel lymph node biopsy (SLNB) has been increasingly used as a method to identify lymph node metastases in gynaecological malignancies while minimizing the complications associated with extensive lymphadenectomy. The concept of SLN biopsy refers to selective and directed sampling of the first-in-chain lymph nodes that drain from a malignant tumour. The aim of our study is to represent the outcome of laparoscopic surgery in terms of the amount of positive lymph nodes retrieved, postoperative complications and morbidity, survival rate in patients previously diagnosed with endometrial carcinoma.

#### Methods

A retrospective observational study was performed. Included were patients who underwent total laparoscopic hysterectomy with bilateral salpingo-oophorectomy and pelvic SLN biopsy with or without para-aortocaval biopsy, diagnosed with endometrial carcinoma. SLN mapping was performed with intraoperative cervical indocyanine green (ICG) injection. Basic characteristics were evaluated using descriptive statistics. Surgical data, including number of lymph node retrieved, operative time, and intra/postoperative complication rates, were noted.

#### Results

Twenty-two patients were included in our study. Mean surgery duration (OR time) was 115.6±37.6 minutes. There were no intraoperative or postoperative complications occurred, as well as ICG injection-related complications. Mean hospital stay was 2.77±1.09 days. Mean number of lymph nodes retrieved was 7±3.9. Two patients (9.09%) had unilateral lymph node metastases.

#### Conclusions

We presented a small group of patients who underwent SLN biopsy for endometrial cancer staging. This is the biggest sample of patients where this intervention was performed in our country. In our experience, laparoscopic SLNB is safe procedure for endometrial carcinoma treatment and staging. Limitations of the study are its retrospective nature and small sample size.

**Robotically treated spontaneous interstitial pregnancy on tubal stump: a case report**

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**Background**

To report a rare case of a right interstitial pregnancy spontaneously occurring in a patient who had previously undergone homolateral salpingo-oophorectomy, and to propose possible explanations for the mechanisms involved in the genesis of this rare scenario.

**Methods**

A 32-year-old G3P1 female presented to our emergency room with symptoms related to a suspected ectopic interstitial pregnancy managed in another hospital using a conservative pharmacological approach. After discussing the risks, firstly she underwent a transvaginal ultrasound examination, then a diagnostic hysteroscopy to clarify the unclear ultrasound finding, followed by a successful robot-assisted laparoscopic cornual resection.

**Results**

Hysteroscopy demonstrated an empty uterine cavity, confirming the suspect of pregnancy localization into the interstitial portion of the tubal stump. Through the robot-assisted laparoscopic approach, all the trophoblastic tissue was removed without causing significant damage to the surrounding myometrium and preserving the patient's fertility. No post-operative complications were recorded. The robotic approach successfully allowed the cornual resection, with minimal blood loss and optimal suturing of the uterine defect.

**Conclusions**

Although our knowledge is still limited, it is possible that the pregnancy nested in the tubal residue after being properly fertilized into the intact tube. However, it cannot be ruled out that there have been remodelling phenomena of the tubal residue so that it has acquired the ability to intercept the oocyte. Overall, the robot-assisted laparoscopic approach can be considered a feasible and safe strategy for the surgical treatment of IPs and can offer some advantages, such as shorter surgical time, magnification of the operative field, wide mobility of the robotic arms, minimal invasiveness, and minimal blood loss, while minimizing the risks.

**ABST-0289 - P086**

**ePoster and Video Presentations**

**A retrospective study of the role of hypogastric artery ligation in the management of postpartum haemorrhage**

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**Background**

Postpartum haemorrhage (PPH) is a serious accident. Despite the identification of certain risk factors, this complication remains unpredictable and remains the most common cause of maternal mortality. The management of PPH has several therapeutic weapons. His surgery is variable and bilateral internal iliac artery ligation (BIIAL), one of the conservative techniques, is the most used with promising results. We have tried to identify through our study its indications, its technique and to specify its results and limits.

**Methods**

We carried out a retrospective descriptive study of 51 cases of postpartum haemorrhage which required a BIIAL collected in the department of obstetrics and gynaecology of Bizerte over a period of eight years from January 1st, 2010, to December 31<sup>st</sup> 2017.

**Results**

The average age of our patients was  $32\pm 7$ . The average parity was  $2.6\pm 1$ . The factors of uterine overdistension were present in 33% and long labor in 11% of cases. No risk factors were identified in 23.6%. The main cause of PPH was atony in 69% followed by genital lesions in 12% of cases and hemostasis disorders in 10% of cases. The surgical intervention time was  $39\pm 3$  minutes and the combination of one or more surgical procedures was performed like suture uterine reparation in 5.9% of patients with uterine rupture before BIIAL, vascular ligation was associated in 88% of cases and endo-uterine hemostatic suture in 49% of cases. If PPH was considered seriously severe, BIIAL was preferred as the first line of surgical procedure in 12% of cases. We had 90.2% of successful outcome and surgical complications were found in 9.7% of cases.

**Conclusions**

Bilateral internal iliac artery ligation is a life saving procedure that remains a delicate but effective technique in the management of severe HPP. It avoids hysterectomy in the absence of the arterial embolization technique. Its complications are weak under the guise of knowledge of anatomy and the respect of a rigorous surgical procedure



**Uterine rhabdomyosarcoma Dicer-1 gene mutation in a 14-year-old girl. A rare case difficult to manage**

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**Background**

Rhabdomyosarcoma is a rare malignant tumour arising from striated muscle cells. In children under 15 years of age, the annual incidence is 1/244,000. It typically occurs in children, especially in the age group between 1 and 5 years. The most frequently affected regions are the head-neck region (especially the orbit) and the genitourinary tract (vagina, uterus, bladder).

Metastatic rhabdomyosarcoma treatment is multidisciplinary and includes chemotherapy and surgery according to the guidelines of the EpSS's society (European paediatric soft tissue sarcoma study group) Age, histology, the site of the tumour, the number of metastases and the presence of lesions at the bone level define two groups of patients, namely high and low risk (with overall survival of 58% and 22% respectively at 5 years). We present the difficult manage of a rare case of rhabdomyosarcoma in a young 14-year-old girl.

**Methods**

Following episodes of metrorrhagia and abdominal pain, the patient had chest and abdominal CT scan, with findings of a uterine mass of 20 cm associated with pulmonary metastatic lesions. Therefore, in March 2023, the patient underwent diagnostic laparoscopy with findings of widespread peritoneal disease in all abdominal quadrants. The definitive histological examination was conclusive for mutated Dicer 1 rhabdomyosarcoma. Chemotherapy treatment was started according to the EpSSG guidelines (actinomycin D, vincristine, ifosfamide for six cycles).

**Results**

Patient was re-evaluated at the end of the sixth cycle with evidence of dimensional reduction of metastatic lesions in the lungs, but after the performance of diagnostic laparoscopy, persistence of peritoneal involvement was highlighted. She was therefore subjected to 3 further cycles of chemotherapy. In January 2024 she underwent to laparoscopic surgery and class A radical hysterectomy, excision of the pre-vesical peritoneum, bilateral salpingectomy and bilateral ovaro-suspension. Now, patient is continuing with maintenance therapy (treatment with vinorelbine and cyclophosphamide for a period of one year from March 2024)

**Conclusions**

Rhabdomyosarcoma is a rare and very aggressive tumour; although in recent years, thanks to innovative treatments, the 5-year survival of localized rhabdomyosarcoma is around 70%, survival, in the metastatic group remains very low. The treatment must always be evaluated by a multidisciplinary team, using chemotherapy, surgery and in some cases radiotherapy. Thanks to the new treatment advances, approximately 70% of patients with metastatic rhabdomyosarcoma are able to reach complete remission of the disease.

### **Tips and tricks for minimally invasive hysterectomies of large-size uterus**

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#### **Background**

- Patient consent to present and publish this work has been previously obtained.
- The main endpoint of the paper is to show some tips and tricks for the performance of apparently difficult and really hard endoscopic hysterectomies in big size uterus suffering for fibroids, avoiding the conversion to a classic laparotomy.

#### **Methods**

- To implement these tips, we previously define what it is a large uterus and how we can classify them. For their definition we quote some papers that define them as uterus over approximately one kilogram. But our intention is to demonstrate that size or weight are not defining factors for the surgical technique. According to Uccella et al. (2021) we can classify them in three types: type one or cephalic uterine blood supply at or below the normal level, type two or cephalic with supply displaced above or type three with large cervico-isthmic fibroid displacing vessels. Applying five tips the hysterectomies performed on those patients could be much easier. Using a 30° optic vision is extremely important to visualize and access different points of view difficult by fibroids. Placing the laparoscopic access trocars adapting them to the situation of both ovaries instead of the uterus can be really useful. The uterine manipulator is essential to displace the uterus according to the surgical steps, to help us to perform the colpotomy, preventing injuries over the ureter with some pressure up. The pressure over the big uterus with the central clamp, together with the 30° optic, will achieve better lateral access to the uterine vessels. Finally, the early vaginal opening allows identifying the correct sealing point of the uterine vessels. There are some large uterus that cannot be morcellated with mechanical morcellators and the minilaparotomy with an endobag protection is a perfect option. vNOTES is also a reasonable option for some selected cases.

#### **Results**

- The key to successfully performing a hysterectomy on a large uterus is accessing the uterine vessels and the vagina and some important tips can help us a lot to prevent complications and to improve our technique and surgical times.

#### **Conclusions**

- Some surgical difficulties can be very present when the gynaecologist faces to a large size uterus hysterectomy. Isn't no uterus big enough for a minimally invasive access applying a standardized technique and following some important and fundamental tips and tricks.

**Case report: a rare case of PEComa in a 31-year-old woman**

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**Background**

Uterine perivascular epithelioid cell tumour (PEComa) is an uncommon mesenchymal tumour consisting of spindle cells expressing a myomelanocytic and smooth muscle immunohistochemical phenotype, characterized by aggressive malignancy and metastatic potential. Gynaecological PEComa constitutes slightly over a quarter of all PEComa cases documented in the literature (about 90 uterine PEComas). We present the rare case of a 31-year-old patient with uterine PEComa managed by laparoscopic approach.

**Methods**

The patient was nulliparous, no had pathologies nor previous surgery. During a gynaecological check-up in 2013, she received suspected diagnosis of left infra - ligamentary uterine leiomyoma. In 2023, after routinary gynaecological evaluation, the uterine mass was confirmed with mild volumetric growing; so the patient decided to undergo surgery. During laparoscopic surgery, the preoperative assessment was confirmed: the uterine anatomy was warped by a solid mass (about 8 cm) of the fundus with intramiometrial development. The adnexa appeared regular bilaterally without pelvic free fluid.

**Results**

The mass removal was performed by traditional laparoscopic technique as myomectomy. On histological examination, the pathologist described morphological and immunophenotypic features suggestive of a biphasic mesenchymal lesion with both adipose and muscular components (lipoleiomyoma). However, the immunohistochemical investigations was not definitive. After in-dept analysis, a diagnosis of epithelioid mesenchymal neoplasm, who's morphological and immunophenotypic characteristics (desmin+; smooth muscle actin -; caldesmon -; intense and diffuse TFE3 expression) suggested of TFE3-associated epithelioid PEComa. After diagnosis, the patient was referred to the oncology unit to stage the disease and to evaluate the subsequent multidisciplinary diagnostic and therapeutic approach. The abdomen resonance was negative for residual disease and secondary localizations.

**Conclusions**

Uterine PEComa represents a rare mesenchymal neoplasm with very difficult preoperative sonography diagnosis. The diagnosis relies only on pathological evaluation. Often, they are sonographically confused with leiomyomas or lipoleiomyomas. Therefore, surgical precision and attention to the removal of uterine neoformations, even those suspected to be benign, are crucial, with particular attention to safety tissue morcellation.

**A retrospective comparative study of anatomical results in the management of urogenital prolapse between laparoscopic and laparotomic promontofixation**

Mourali Mechaal<sup>1</sup>, Wissal Jaafar<sup>1</sup>, Hela Kacem<sup>1</sup>, Ferdaous Mellouli<sup>1</sup>, Yasmine Chiba<sup>1</sup>, Nahed Khalifa<sup>1</sup>  
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**Background**

Urogenital prolapse (UGP) is characterized by a hernia that forms in the vaginal cavity, allowing one or more organs of the abdomen and pelvis to become involved. This may include the bladder (cystocele), uterus (hysterocele), rectum (rectocele) and the cul de sac of Douglas (elythrocele). This condition results in abnormal descent of these organs into the vaginal cavity. It is a functional and sometimes disabling disease, mainly affecting women between the ages of 45 and 85. As life expectancy increases, the incidence of this condition continues to rise. Its pathogenesis involves many factors.

**Methods**

This was a retrospective comparative study conducted in the obstetric gynaecology department of Bizerte University Hospital, from January 2017 to June 2022, a five-year period during which we collected 72 patients. We included women operated for genital prolapse by laparotomic (LP, n= 59) and laparoscopic (LSP, n= 13) upper approach promontofixation.

**Results**

A high percentage of our patients (96%) consulted because of a sensation of vaginal prolapse, with a vaginal ball externalized through the vulva. 18% of our patients consulted because of pelvic-perineal discomfort. Minor urinary symptoms such as dysuria without obvious urinary incontinence were described by 18.6% of patients. Sexual discomfort (dyspareunia, avoidance behaviour) was mentioned by 22% of our patients. The Baden and Walker classification was used to assess the grade of urogenital prolapse. Irrespective of the type of operation, cystocele was noted in all cases, and was externalized (grade 3 or higher) in 71.3% of women. Hysterocele was observed in 98.6% of cases, and grade 3 of the classification was found in 75.3% of cases. The frequency of rectocele was 73.5%, and the externalized form was found in 42.7% of cases. When comparing the two groups of patients operated on via the upper approach, laparoscopic operating time was superior to that by laparotomy. The upper approach showed superior efficacy in treating grade 1 prolapse, while for grade 2 and 3 prolapse, laparotomic promontofixation achieved a satisfactory anatomical result in 86%, while laparoscopic promontofixation achieved a significant result in 78% of cases. Moreover, recurrences mainly concerned the anterior stage.

Table: Anatomical results for women operated on via the upper approach

	GRADE 1		GRADE 2		GRADE3		GRADE4		P
	LP	LSP	LP	LSP	LP	LSP	LP	LSP	
cystocele	0	0	40	9	18	4	1	0	0.01
hysterocele	58	8	1	5	0	0	0	0	0.01
rectocele	12	2	45	11	1	0	1	0	0.01

**Conclusions**

Promontofixation seems to be considered the gold standard in reconstructive surgery for genital prolapse. It is recommended that this procedure be offered routinely as a first-line procedure in younger women and offers comparable results to the laparotomic approach. This suggests that laparoscopy may be preferred because of its potential advantages.

**The use and types of hormone therapy in women with surgically diagnosed endometriosis – a nationwide Finnish register study.**

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**Background**

To study the use and types of hormone therapy (HT) after hysterectomy among women with surgically verified endometriosis.

**Methods**

A retrospective cohort study. From a Finnish nationwide cohort of 49,956 women with surgically verified endometriosis and 98,824 age and municipally matched controls from 1987 to 2012 (Saavalainen et al., Hum Reprod 2019) we identified those having had undergone hysterectomy and bilateral oophorectomy (BSO) at age of ≤45 years and those having had hysterectomy at >45 years from 1998 to 2018. We excluded women who had diagnosis of deep venous thrombosis, or breast or gynaecological cancer prior or at hysterectomy. Among women with endometriosis, we identified 6124 meeting the criteria: 1627 women aged ≤45 and 4497 >45 years. The corresponding numbers of control women were 121 and 5120. The women with surgically verified endometriosis were identified from Care Register for Health Care, the control women from the Finnish Digital and Population Data Services Agency. The data on HT use was gathered from the register of drug purchases of Social Insurance Institution from 1995 onward. Several other Finnish registries were used for additional data collection. The follow-up started at the day of hysterectomy and continued until 31st December 2019, or diagnosis of deep venous thrombosis, breast or gynaecological cancer, emigration or death, whichever came first.

**Results**

The median age at the time of hysterectomy (±BSO) was 41.4 in vs 43.1 years ( $p < 0.0001$ ) in women aged ≤45 years, and 49.7 vs 52.0 years ( $p < 0.0001$ ) in women aged >45 years in endometriosis and reference cohorts, respectively. Women with endometriosis used HT more than controls in both age cohorts ( $p < 0.0001$ ): after hysterectomy and BSO at ≤45 years 1534 (94.3%) and 99 (81.8%), and after hysterectomy >45 years 3286 (73.1%) and 2636 (51.5%) women used HT, respectively. Oestrogen-only HT was used by 223 (75.2%) women with endometriosis and by 90 (74.4%) controls in the cohorts of ≤45 years ( $p = 0.04$ ), and by 3084 (93.9%) vs. 2544 (96.5%) of women >45 years at hysterectomy ( $p < 0.0001$ ), respectively. Among women with surgically verified endometriosis combination of oestrogen and progestin was used by 281 (17.3%) women with hysterectomy and BSO at ≤45 years and by 175 (5.3%) of those with hysterectomy >45 years. The corresponding numbers among control women were 9 (7.4%) and 61 (1.2%).

**Conclusions**

Women with surgically verified endometriosis used HT more often than the controls - nine out of ten after hysterectomy and BSO at ≤45 years and two out of three after hysterectomy at > 45 years of age. The high rate of oestrogen-only HT use is in contrast with guidelines on the management of women with endometriosis.

**Comparative study in the management of urogenital prolapse of medium- and long-term functional complaints in the aftermath of laparoscopic and laparotomic promontofixation**

Mourali Mechaal<sup>1</sup>, Wissal Jaafar<sup>1</sup>, Hela Kacem<sup>1</sup>, Ferdaous Mellouli<sup>1</sup>, Yasmine Chiba<sup>1</sup>, Nahed Khalifa<sup>1</sup>  
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**Background**

Urogenital prolapse (UGP) is characterized by a hernia that forms in the vaginal cavity, allowing one or more organs of the abdomen and pelvis to become involved. This may include the bladder (cystocele), uterus (hysterocele), rectum (rectocele) and the cul de sac of Douglas (elythrocele). This condition results in abnormal descent of these organs into the vaginal cavity. It is a functional and sometimes disabling disease, mainly affecting women between the ages of 45 and 85. As life expectancy increases, the incidence of this condition continues to rise. Its pathogenesis involves many factors, such as multiparity, instrumental vaginal deliveries and chronic intra-abdominal hyperpressure.

**Methods**

This was a retrospective comparative study conducted in the obstetric gynaecology department of Bizerte University Hospital, from January 2017 to June 2022, a five-year period during which we collected 72 patients. We included women operated on for genital prolapse by laparotomic (LP, n= 59) and laparoscopic (LSP, n= 13) high approach promontofixation, comparing their medium- and long-term functional complaints in the aftermath of laparotomic and laparoscopic promontofixation.

**Results**

Parietal pain was observed in 22% of laparotomy patients, more significantly than in laparoscopic patients (p=0.01), while scapular pain was noted in 6% of laparoscopic patients. Lumbar pain was noted in 17.3% of patients operated on by laparotomy.

	Laparotomic promontofixation	Laparoscopic promontofixation	P
Scapular pain	6	0	0.01
Parietal pain	0.7	22	0.01
Lumbar pain	2.7	17.3	0.01
Buttock pain	2	1.3	0.01

In a comparison of the groups operated on via the upper approach, de novo urinary incontinence and pollakiuria were more common in patients operated on by laparotomy (p=0.01), while urgency was more common in the laparoscopic group.

**Conclusions**

Promontofixation seems to be considered the gold standard in reconstructive surgery for genital prolapse. It is recommended that this procedure be offered routinely as a first-line procedure in younger women, generally those under 50-60 years of age and offers comparable results to the laparotomic approach. This suggests that laparoscopy may be preferred because of its potential advantages, such as faster recovery and less postoperative discomfort.

**Leiomyoma of anterior abdominal wall an uncommon entity: a case report**

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**Background**

Fibroma or leiomyoma is the most common benign tumour of the female reproductive system, which is usually found in the uterus, but may also occur in other places, such as the ovary, the broad ligament, and in rare cases in the abdominal wall.

**Methods**

The case was a 42-year-old woman with a complaint of an abdominal lump which she noticed a month ago. She also has associated backache and constipation. She has a history of subfertility with three failed IVF attempts in Italy. On examination her uterus was equivalent to 34 weeks pregnancy. Ultrasound and MRI showed Multiple fibroid uterus with the largest pedunculated fibroid measuring 14cm.

She had Open myomectomy with midline incision. There was a large 20cm degenerating uterine fibroid. Uterus contains seven other fibroids which were removed without breaching the uterine cavity. There was a 6cm fibroid that was located within the anterior abdominal wall completely separate from the uterus, coming from above the rectus sheath, removed successfully. Biopsies including biopsy of rectus sheath lesion were normal and in keeping with uterine fibroids.

**Results**

Fibroma or leiomyoma is the most common benign tumour of the female reproductive system, The most common site for this tumour is the uterus, but it may also occur in other areas such as the ovary, the broad ligament, and in rare cases in the abdominal wall. The formation of myomas in the abdominal wall is rare and is possibly due to myometrium tissue implantation after surgery for the removal of uterine leiomyoma, especially after laparoscopic myomectomy. There was no history of myomectomy in our patient.

Several theories have been presented to explain the cause of myoma formation in the abdominal wall. Generally, these myomas are divided into two primary and parasitic groups. Theories such as smooth muscle cell transformation and secondary metaplastic changes of non-muscle cells seem logical for the development of the primary myomas. In contrast, for parasitic myoma, the best explanation is the existence of a series of events that attach the uterine myomas to the anterior abdominal wall, and then the source of its blood supply is developed and its connection with the womb is separated.

**Conclusions**

The formation of myoma is rare in the abdominal wall but given the fact that the leiomyoma can be created at each part of the body that has smooth muscles, such as the anterior abdominal wall, it should be included in the differential diagnosis list of the abdominal wall masses. The treatment of the abdominal wall myoma is the complete removal of the mass, and in case of complete and successful resection, the probability of recurrence is rare.

### The impact of in-bag morcellation use on operative parameters in laparoscopic myomectomy

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#### Background

Though in bag morcellation has not been shown to reduce the spread of leiomyosarcoma, it is a good practice recommendation to use bags to prevent spread of morcellated fibroid fragments. However, detractors of its use suggest that it adds to operating time. We present a retrospective analysis spanning 20 years to evaluate the impact of in-bag morcellation on operative time and length of stay for laparoscopic myomectomy.

#### Methods

A retrospective analysis was performed on real-time data spanning 20 years from a single site, performed by a consistent primary operator. This included four years of consecutive laparoscopic myomectomies using in-bag morcellation.

Laparoscopic myomectomies were grouped based on the use of in-bag morcellation. To enhance data homogeneity, 168 operations involving additional procedures were excluded (156 without bag and 12 in-bag) and four incomplete data sets were excluded. The chronologically earliest operations from both groups were excluded to control for the operative learning curve. Data analysis was performed using Excel for subgroup comparisons.

#### Results

No significant differences were observed between groups in median operative time (120 minutes) or median length of hospital stay (1 day). Median estimated blood loss was consistent at 200ml in both groups. Demographic characteristics including age, ethnicity, and BMI were comparable. However, the in-bag group had larger fibroid size, number, and resected weight, indicating higher average procedural complexity.

#### Conclusions

Our findings suggest that in-bag morcellation does not adversely affect operative time or hospital stay, supporting its safety and efficiency in myomectomy procedures as per national guidance. These results underscore the feasibility of the technique, even in procedures of heightened complexity, providing valuable insights for future surgical practice.



**Fertility preservation by sclerotherapy in young patients with single adnexa giant endometrioma: case report**

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**Background**

Ovarian cystectomy is the most preferred technique for surgical management of ovarian endometriomas. However, according to the size of the cyst, this technique has a major impact on ovarian reserve and pregnancy rate in females with fertility desire. Sclerotherapy for the management of ovarian endometrioma may be considered in women who plan to conceive, especially if fertility is impaired already by previous events.

**Methods**

We present a case of a 35-year-old patient, nulligesta, who presented at the Hospital of Obstetrics and Gynecology "Elena Doamna" Iasi, Romania, with severe chronic pelvic pain worsening during menstrual cycle. Her history revealed a laparoscopic left adnexectomy 3 years before for ovarian endometrioma. Initial ultrasonography evaluation showed a right giant ovarian endometrioma, measuring 150 mm/99 mm, the absence of contralateral adnexa post anterior laparoscopic surgery she underwent, and no uterine abnormalities. She followed 6 months hormonal treatment before surgery with no significant decrease of the ovarian mass. Taking into consideration the patient's age, ovarian tumour size, fertility desire, and the anterior surgery she underwent, we decided for laparoscopic ovarian sclerotherapy.

**Results**

We performed laparoscopic ovarian sclerotherapy in this case, using approximately 500 ml of ethanol 95% was injected inside the cyst, left in place for 10 minutes then extracted without any short-term complications. Ultrasound assessment one month after intervention showed a decrease by more than a half its initial size, from 150 mm / 99 mm to 70 mm / 45 mm. Three months later, the endometrioma regressed up to 33.6 mm / 30 mm. During this period of time, the ovarian reserve improved, the anti-Mullerian hormone has increased from 0.03 ng/ml to 0.13 ng/ml, having a fourfold increase. At the moment, she follows GnRh antagonist hormonal treatment, and nutritional diet based on anti-inflammatory, showing favourable evolution.

**Conclusions**

Ovarian sclerotherapy with 95% ethanol can lead to better short term clinical outcomes and well-preserved ovarian function for patients with endometrioma who desire a pregnancy. Our case is particular as one of the largest cyst treated by sclerotherapy on a single adnexa, with a moderate reproductive prognosis but probability of keeping her adnexa for a longer period.

**The superiority of laparoscopic promontofixation over laparotomy in the prevention of immediate complications and in the prevention of recurrence**

*Mourali Mechaal<sup>1</sup>, Wissal Jaafar<sup>1</sup>, Ferdaous Mellouli<sup>1</sup>, Hela Kacem<sup>1</sup>, Yasmine Chiba<sup>1</sup>, Nahed Khalifa<sup>1</sup>*  
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**Background**

Laparoscopy offers better visualization of the pelvis. The pneumoperitoneum facilitates dissection and ensures better fixation of prosthetic material, while reducing intraoperative blood loss, hospital stay and the risk of recurrence in the medium and long term.

**Methods**

This was a retrospective comparative study conducted in the obstetric gynaecology department of Bizerte University Hospital, from January 2017 to June 2022, a five-year period during which we collected 72 patients. We included women operated on for genital prolapse by laparotomic (LP, n= 59) and laparoscopic (LSP, n= 13) high approach promontofixation, comparing the occurrence of immediate complications and recurrence.

**Results**

The laparoscopic approach led to fewer cases of therapeutic failure than the laparotomic approach. This suggests that laparoscopic surgery may offer advantages in terms of efficacy and tolerability in the treatment of urogenital prolapse. In our study, hospital stay was shorter after laparoscopy than after laparotomy, with a complication rate of 4.2% compared with 8.6% for the laparotomic approach. The laparoscopic approach limits the risk of recurrence, reduces the need for subsequent surgery for recurrence, and minimizes the occurrence of de novo stress urinary incontinence and de novo dyspareunia. However, it is noted that this technique may require a longer operative time than laparotomic surgery. This information underlines the importance of choosing the appropriate surgical technique according to each patient's specific needs and objectives. Promontofixation may be particularly indicated in cases where prevention of recurrence is a priority, mainly in young women. As far as recurrence is concerned, we describe it as prolapse reaching a stage equal to or greater than 2 according to the Baden-Walker classification. In our study, for the anterior stage, laparotomy was responsible for more cases of recurrence than laparoscopy, 19 cases versus 4 cases ( $p=0.01$ ). There are few studies on the factors associated with recurrence of prolapse after surgery. In a comparison of the groups operated on via the upper approach, de novo urinary incontinence and pollakiuria were more frequent in patients operated on by laparotomy ( $p=0.01$ ), whereas urgenturia was more frequent in the group operated on by laparoscopy. Intraoperative and postoperative mortality was nil in our series.

**Conclusions**

Promontofixation is currently considered the gold standard in reconstructive surgery for genital prolapse. It is recommended that this procedure be offered routinely as a first-line treatment in younger women, generally because of its potential advantages such as faster recovery and lower risk of recurrence.

**ABST-0343 - P094**

**ePoster and Video Presentations**

**What is the role of Molecular Biomarkers at endometriosis related infertility? A narrative review of literature.**

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### **Background**

Endometriosis is a chronic benign inflammatory disease that affects about 10-15% of reproductive-age women. The clinical presentations of endometriosis include dysmenorrhea, dyspareunia, chronic pelvic pain and infertility. It is estimated that 30-50% of women diagnosed with endometriosis face with fertility issues. Therefore, there is a need for an early diagnosis of endometriosis-related infertility. In this study we are aiming to identify the role of biomarkers as predictive factors about the presence of the disease, its severity and their correlation with the pregnancy outcome.

### **Methods**

We performed an electronic database search of all published studies in PubMed and EMBASE from January 2018 to May 2023.

### **Results**

Numerous innovative biomarkers identified in cases of endometriosis and infertility have been studied over the past years, including micro-RNAs, BCL6 endometrial expression, CTLA-4, HLA-G, PD-1, PDL-1 immune checkpoint molecules, plasma FN-fibrin complexes, HOXA-10 gene, systemic inflammatory response markers and the eutopic endometrium proteome.

### **Conclusions**

A lot of research has been made to identify diagnostic biomarkers for an early detection and prevention of endometriosis-associated infertility. Although, none of these biomarkers displayed enough diagnostic accuracy to be used in daily clinical practice. Future research is valuable to establish them as reliable diagnostic tools.

**Laparoscopic two-port myomectomy: A retrospective case series of a novel minimally invasive approach towards myomectomy**

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**Background**

Minimally invasive myomectomy has significant benefits and improved patient outcomes when feasible. Various techniques can be utilized, including laparoscopic, robotic, and single site.

The two-port myomectomy method combines aspects of traditional laparoscopy and single-site surgery, using two operative ports.

A single site system (multi-port) is used at the umbilicus through a 2.5-3.5 cm incision and a single 5-mm port is used in the right lower quadrant. This technique facilitates the use of an instrument and a 45-degree laparoscope at the umbilicus. There are several benefits to this approach, allowing for reduction of the number of abdominal incisions required, improved traction for removal of fibroids, improved triangulation for laparoscopic suturing, and expedites removal of small fibroids from the abdominal cavity.

The objective of this study is to review a series of 87 cases of laparoscopic myomectomy utilizing this two-port approach, observing the patient population characteristics and perioperative outcomes.

**Methods**

This case series evaluated 87 adult women who underwent laparoscopic myomectomy using a two-port approach over a 6-year period (2018-2024) performed by a single fellowship-trained surgeon in minimally invasive gynaecological surgery at a tertiary surgical referral centre. Data was collected from retrospective chart review. Outcomes of interest included patient demographics; intra-operative variables, such as total number of fibroids removed, size and location of fibroids removed, operative time, estimated blood loss (EBL), and incidence of intraoperative complications. Postoperative variables were also included, such as length of stay and occurrence of any postoperative complications within 30-days of surgery.

**Results**

The mean patient age was 37.5-years with mean body mass index of 26.5-kg/m<sup>2</sup>. The median number of fibroids removed was 2, ranging from 1 to 14. The mean fibroid size was 5.2-cm (range 2.5 to 13.7-cm), and mean total fibroid weight removed was 73.5-g, (range 6.2 to 547-g). The median and mean estimated blood loss was 60-mL and 212-mL, respectively, with a range of 15 to 700-mL. 58 (67%) patients had EBL of 100-mL or less, 75 (86%) patients had EBL of 250-mL or less and 3 patients (3.4%) had EBL of greater than 500-mL. One patient (1.1%) required intraoperative blood transfusion. The mean operating time was 153-min, (range 56 to 273-min). 74.7% of patients were discharged on the day of surgery, with the remaining 25.3% discharged on postoperative day 1. Three patients (3.4%) experienced a "minor" postoperative complication within 30-days (blood transfusion and postoperative urinary retention). One patient (1.1%) experienced a "major" complication (small bowel obstruction requiring reoperation).

**Conclusions**

Laparoscopic myomectomy can be successfully performed with use of two ports and should be considered a safe alternative to traditional laparoscopic port set-ups.

### Hysteroscopy and ART: defying clinical indications based on current evidence

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#### Background

Implantation failure remains a mystery since decades. This procedure needs a “top quality embryo” and a “normal” uterine cavity. To assess uterine cavity before first in vitro fertilization (IVF), many diagnostic tools could be used. Hysteroscopy remains the gold standard to diagnose and treat intra- uterine anomalies. However, it is not clearly recommended to offer an office hysteroscopy before first IVF when transvaginal ultrasound (TVUS) and hysterosalpingography (HSG) were normal. In the same time, recurrent implantation failure (RIF) may be due to unrecognised uterine pathology. The frequencies of unrecognised uterine pathology revealed by hysteroscopy are 18-50% and 40-43% in patients undergoing IVF with or without RIF, respectively. Endometrial polyps can be related to increased risk of recurrent miscarriages. Implementation rates are decreased in patients with submucous or intramural fibroids with distorted uterine cavity. This review aims to evaluate the validity of office hysteroscopy in subfertile population before or after IVF treatment.

#### Methods

We performed an electronic database search of all published studies in PubMed and EMBASE from January 2018 to December 2023.

#### Results

Data are inconclusive regarding the role of hysteroscopy on pregnancy outcome after IVF. It seems that women having two previous failed IVF treatments have a benefit from hysteroscopy, on the contrary with women without indication of intrauterine pathology. Hysteroscopy before first IVF does not improve live birth rate in patients having normal uterine cavity according to pelvic ultrasound and hysterosalpingography, nevertheless, other studies note an improvement in ongoing pregnancy rate but without any statistical significance. There is not strong evidence to support hysteroscopy as a screening method in sub-fertile women with a normal basic fertility work-up for increasing live birth and clinical pregnancy rates, when diagnostic hysteroscopy is performed before fresh and frozen-thawed embryo transfer in IVF cycles.

#### Conclusions

A lack of consensus of reproductive outcomes following hysteroscopy after ART failure is noted among the existing studies. Hysteroscopy in women with implantation failures have failed to improve the life birth rate. Hysteroscopy is a reliable diagnostic tool that can detect intrauterine pathologies missed by other investigative modalities; correction of these abnormalities seems to improve pregnancy outcomes in women with implantation failures. However, more RCTs are needed to investigate the role of hysteroscopy in patients with IVF treatment failures.

### Solitary fibrous tumour won't run solo anymore

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#### Background

Solitary fibrous tumour (TFS) is a rare tumour of mesenchymal origin, located mainly in the pleura and in the thorax, that involves soft tissues with a biological behaviour that is not clear yet, also due to the low number of cases reported in the literature. It is infrequent to find it: extra-thoracic localization is uncommon and abdominal localization is very rare. Although the aetiology of the neoplasm remains unknown, the pathogenesis seems to be related to an NAB2-STAT6 fusion gene on chromosome 12q13. The diagnosis requires an integrated approach that includes specific clinical, histological, immunohistochemical and molecular findings too. Histologically, SFT is a mass characterised by a pattern less distribution of both oval- and spindle-shaped cells proliferation in a variable collagenous matrix with a vascular network and CD34 reactive to immunohistochemical investigations.

#### Methods

We present the case of a 63 years-old woman with a history of weight loss after the diagnosis of Sars-Cov2 pneumonia. After an episode of bronchopneumonia, she performed blood chemistry tests with the finding of a monoclonal peak in the gamma zone. Therefore, she underwent a haematological examination with a diagnosis of MGUS and is advised to perform a chest-abdomen CT scan, which led to the detection of an abdominal mass measuring approximately 12 cm. She subsequently underwent complete removal of the neof ormation laparoscopically. Morphological (1 mitosis, 10 HPF) and immunophenotypic (focal CD34+; STAT6+) characters led to the diagnosis of solitary fibrous tumour at intermediate risk.

#### Results

Compatible with data present in the literature, complete tumour resection and histopathological features are the main prognostic factors. Surgery has a main role in this type of neoplasia and a minimally invasive approach, despite the large size of the neoplasm, favours better short and long-term outcomes. In our case, chemotherapy was not indicated: the patient's care plan will include periodic follow-up visits. SFT is usually considered as a clinically indolent neoplasm, however the prognosis is substantially unpredictable and only partially related to morphological features: cellularity, neoplastic borders, cellular atypia, and mitotic activity can be widely variable.

#### Conclusions

Dimensional pattern, histopathological features and curative surgery remain the most important indicators of clinical outcome. There are few cases published of solitary fibrous tumour with intraspinal localization. We report another case to the literature and, as a future perspective, we will use it to evaluate the long-term behaviour of SFT.

**Cesarean scar pregnancy: Should surgery be the preferred method of treatment**

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**Background**

As the rate of caesarean deliveries continues to rise, caesarean scar pregnancies (CSP) are becoming more prevalent. Early diagnosis is important, as the persistence of the pregnancy within the scar can lead to catastrophic consequences. Although different treatment options have been described in the literature, the most effective treatment remains uncertain. The study aims to compare the characteristics and outcomes of surgical and conservative treatments for caesarean scar pregnancy (CSP).

**Methods**

This is a retrospective study conducted at a tertiary university affiliated medical centre including all women diagnosed with caesarean scar pregnancy between 2019 to 2023. Women treated surgically (including hysterectomy, hysteroscopy and excision of the pregnancy with or without uterine niche repair) were compared to women treated conservatively (including methotrexate, uterine artery embolization, balloon catheter). Demographics, medical history, obstetrical and gynaecological characteristics, presenting symptoms, imaging findings, management, operation characteristics and follow up were collected from electronic medical files. Primary outcome was defined as  $\beta$  hCG levels on follow up visit at 2 weeks. Secondary outcomes include haemoglobin level following treatment, complications, hospitalization duration, need for additional intervention.

**Results**

16 women underwent robotic assisted abdominal cerclage during the study period, of them 42 women were diagnosed with Caesarean scar pregnancy during the study period, of them 33(79%) were treated surgically and 9(21%) were treated conservatively. Median age was 33(30-36) year old and median BMI was 31(27-35) kg/m<sup>2</sup> with no statistical differences in-between the groups. Most of the women had previous 2 Caesarean sections (n=12, 28%). 63% of the women were asymptomatic at the time of diagnosis. On transvaginal ultrasound examination, embryo was demonstrated in 66.7 % and cardiac activity was observed in 75%. The median gestational age at diagnosis and  $\beta$ -hCG levels were comparable between the surgical and conservative groups (p=0.22, p=0.61 respectively). In the surgical arm, the most common surgical procedure was excision of the pregnancy with uterine niche repair, that was performed in 14/42 (33%) of the women followed by hysterectomy (n=13/42, 31%). Median hospitalization stay was 2(1-3) and 3(1-4) days, for the surgical and conservative treatments, respectively(p=0.51). The haemoglobin level before discharge was similar between the groups (p=0.20). Only one woman in each group visited emergency room before following up visit (p=0.31).  $\beta$  hCG levels on follow up were significantly lower in the surgical compared to the conservative group (p=0.02).

**Conclusions**

Caesarean scar pregnancy can be asymptomatic and should be suspected in order to allow early diagnosis. Surgical and conservative treatments are feasible options, with similar hospitalization length; however, significantly faster decrease in  $\beta$  hCG levels is expected for the surgical intervention group.

**ABST-0357 - P097**

**ePoster and Video Presentations**

**Change the face of outpatient hysteroscopy by introducing a Hysteroscopic tissue removal device.**

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### **Background**

Hysteroscopy is one of the most common gynaecological procedures performed worldwide. It can be used for diagnostic purposes such as the identification of polyps, fibroids and adhesions or for operative procedures such as restoring the anatomy of the uterine cavity. The introduction of the TruClear™ Hysteroscopic Tissue Removal System in 2021 at Whittington Hospital signifies a step towards enhancing the diagnostic capabilities and treatment options available for patients undergoing hysteroscopy.

Our aim is to evaluate the impact of the TruClear™ Hysteroscopic Tissue Removal System removal device on the outpatient hysteroscopy service.

### **Methods**

A retrospective review of patient records over the period of five months before and after the introduction of the TruClear™ Hysteroscopic Tissue Removal System removal device was conducted. This period allowed for data collection on procedures conducted before the introduction and the immediate impact post-implementation. The survey captured feedback from 34 women, providing a foundation for understanding patient experiences.

### **Results**

We have compared two five-month periods in 2021 and 2023. Our results have shown that referrals for outpatient hysteroscopy increased by 41% from 242 (in 2021) to 340 (2023). The increased use of TruClear™ Hysteroscopic Tissue Removal System removal device from 10.2% to 37.9% indicates that the TruClear™ Hysteroscopic Tissue Removal System removal device has significantly improved the efficiency and outcome of the hysteroscopic polypectomy. The need for repeated hysteroscopy under general anaesthesia reduced from 42% to 12%. While all patients were given information about roasting coffee and offered simple analgesia before the procedure, no patients were offered local anaesthetic pre-procedure, and only 44% were aware that General anaesthesia was an option. 97% of patients found the procedure acceptable. In terms of pain during the procedure, 70.6% reported moderate to severe pain on the visual analogue scale (VAS), with a mean pain score of 4.0.

### **Conclusions**

We conclude that the TruClear™ Hysteroscopic Tissue Removal System allows the treatment of intracavitary uterine pathology in outpatient settings. This improves efficiency, decreases the number of patient appointments, and allows savings for the trust. However, the drive for outpatient hysteroscopic procedures could lead to the loss of autonomy if the patients are not given all the options for pain relief. Although the procedure was deemed 'acceptable', is it optimal? With these findings, we changed our approach. Proformas on electronic patient records and consent forms ensure that pain relief options are discussed, and patient choice is indicated. Patient information leaflets with the details of the procedure and links to videos were revised. We also implemented virtual reality to improve the patient experience.



### OHVIRA Syndrome, A Rare Case Report

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#### Background

This case report aims to introduce a patient with OHVIRA syndrome which is a rare Müllerian duct anomaly to help clinicians manage these kinds of patients in the future.

#### Methods

A 49-year-old woman presented with a history of severe dysmenorrhea, intermittent lower abdominal pain associated with vaginal spotting, and brownish discharge. She described intermenstrual spotting. The patient had a history of three miscarriage. Previous examinations had indicated a didelphic uterus. Additionally, the patient had a history of abdominal surgery due to bowel perforation, resulting in midline incisions both below and above the umbilicus. Vaginal examination revealed a single cervix shifted to the left and a palpable mass in the right fornix. A small, obstructed drainage orifice was observed on the right vaginal wall. The orifice was found to be blocked.

An ultrasound performed at another centre in the region initially reported a right adnexal mass. The initial ultrasound revealed a didelphic uterus with a normal left hemiuterus and hematometra and hematocolpos in the right hemiuterus. A subsequent MRI demonstrated. uterus didelphis, with hematometra and hematocolpos in the right hemiuterus, bicolis, right-sided obstructed hemivagina, due to Urogenital anomalies were considered, the patient was evaluated for renal pathologies patient had right renal agenesis with compensatory hypertrophy of the left kidney. These were all the classical findings of right-sided OHVIRA syndrome except for a high C-reactive protein (CRP) level of 45.6 mg/dL, no other specific features were observed.

Vaginoscopic vaginal septum incision under anaesthesia was planned. Laparoscopy confirmed the diagnosis of didelphic uterus. Vaginoscopy revealed a single cervix at 1 o'clock and a lump at 10 o'clock on the right side. Hysteroscopic examination of the left uterine cavity and ostium appeared normal. An oblique incision of 2 cm was made over the lump on the right side of the cervix using a resectoscope. Drainage was facilitated through the newly created opening. To ensure the continuity of drainage, a No. 20 silicone Foley catheter was placed from the septal opening to the right vaginal cavity.

#### Results

On the first postoperative day, ultrasound examination revealed the complete resolution of hematometra and hematocolpos. The patient was discharged with an in-situ catheter and oral contraceptives for a two-week period. During the six-month follow-up, no recurrence of hematometra or hematocolpos was observed, indicating the efficacy of the surgical treatment and its long-term success. The use of vaginoscopy and hysteroscopy reduced the risk of complications and expedited the patient's postoperative recovery.

#### Conclusions

OHVIRA syndrome can be effectively treated when diagnosed correctly and treated surgically. Sensitivity in imaging and personalized surgical planning are very important for relieving symptoms. This case contributes to the understanding of its clinical aspects, diagnosis, and treatment.

**Adenomyoma recurrence after surgery: a case report**

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**Background**

Uterine adenomyosis is a benign gynaecological condition characterized by the ectopic growth of the endometrial tissue. The two main forms of adenomyosis are diffuse and focal adenomyoma. Adenomyoma is defined as encapsulated foci including the two glands and stroma implanted within the myometrium. The main symptoms are abnormal uterine bleeding, dysmenorrhea and sterility. If a woman desires to preserve fertility, sparing surgical treatment is an option although remains a subject of discussion. Accurate diagnose and preoperative TVUS evaluation of adenomyosis are crucial indicators of successful surgery. The objective of our case is to demonstrate our approach to conservative adenomyoma surgery, and to highlight the need for further research regarding sparing techniques in adenomyosis and recurrence-associated factors of laparoscopic adenomyomectomy.

**Methods**

We report a case of a patient with a symptomatic adenomyoma despite medical treatment, in which conservative surgery was performed twice in our unit in order to reduce symptoms and preserve fertility. In spite of >80% removal of the adenomyoma in both surgeries, recurrence was observed in the follow-up transvaginal ultrasounds (TVUS).

**Results**

A 31-year-old patient presented with the diagnosis of adenomyosis and persistence of heavy menstrual bleeding, dysmenorrhea and sterility, despite previous multiple medical treatments (oral contraceptives, progestins and GnRH analogues). At the initial evaluation, a TVUS showed an anterior adenomyoma of 103x70x67mm (volume = 252 cm<sup>3</sup>) associated to diffuse adenomyosis. Adenomyoma volume was determined by ellipsoid volume formula:  $a \times b \times c \times \pi \times 3/4$ , where a, b and c indicate maximum length, width and thickness of the adenomyoma, respectively. Taking into account previous treatment failures, surgery was discussed with the patient. Performance of a V-shaped resection method for adenomyomectomy was proposed, along with previous embolization of uterine arteries with the aim of reducing intraoperative blood loss. A laparoscopic surgery was accomplished successfully with proper identification of the adenomyoma previously described in the TVUS. The pathological study confirmed adenomyosis and the total volume of the adenomyoma was estimated to be 204 cm<sup>3</sup>.

Shortly after, the patient underwent an in-vitro fertilization. Two miscarriages occurred.

In the follow-up TVUS, an anterior adenomyoma of 62 x 39 x 44mm (volume = 55 cm<sup>3</sup>) was observed again. Assuming a negative impact on implantation rate and due to reinitiating of symptoms, surgery was again proposed. A V-shaped adenomyomectomy was performed laparoscopically, and the pathological study also confirmed adenomyosis. The volume was estimated to be 47cm<sup>3</sup> (61x55x27mm), concluding that 85% of the initial lesion was removed.

**Conclusions**

This case report highlights that adenomyomas are still an outstanding challenge in some patients. Adenomyomas can be treated with sparing techniques laparoscopically, nevertheless, further studies are needed for tailoring this approach to each patient and developing algorithms to detect patients at high risk of recurrence

**Mini-laparoscopic versus conventional laparoscopic hysterectomy: a comparative study**

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**Background**

Mini-laparoscopy is associated with less pain, a lower wound complication, a lower port-site hernia, and better cosmetic results compared to standard laparoscopy. Several studies have approved the possibility of using mini-laparoscopy for benign and malignant conditions without a negative effect on the surgical quality.

**Methods**

The study included the patients treated by mini-laparoscopic (n=150) or conventional laparoscopic (n=150) surgery. The two groups were compared in terms of operating times, estimated blood loss, complications, and hospitalization.

**Results**

The mean age was  $52.34 \pm 8.46$  years (range, 37-84 years), and the mean BMI was  $25.9 \text{ kg/m}^2$  (range, 18.3-40  $\text{kg/m}^2$ ). There was no significant difference among the mini-laparoscopy and conventional laparoscopy groups in regard to surgical procedures, mean operation time, and median estimated blood loss. No intraoperative complication was observed in the mini-laparoscopy group. In the conventional laparoscopy group, bladder injury (n=2) and vascular injury (n=1) occurred as an intraoperative complication. No port site-related complication was observed in either group. Postoperative complications occurred in 6 (4%) patients in the conventional laparoscopy group and in 4 (2.7%) patients in the mini-laparoscopy group. As a postoperative complication, umbilical wound infection was seen in one patient in both groups and treated with oral antibiotic agents. Chylous ascite was observed in one patient in the mini-laparoscopy group and managed conservatively. Postoperative fever of the patients (3 patients in the conventional laparoscopy group and 2 patients in the mini-laparoscopy group) was within 72 hours after the operation and managed conservatively. Pelvic peritonitis and cuff cellulitis occurred in the conventional laparoscopy group and treated with intravenous antibiotic agents. The mean duration of hospitalization was  $2.59 \pm 1.71$  days in the mini-laparoscopy group and  $2.29 \pm 1.68$  days in the conventional laparoscopy group (p=0.076).

**Conclusions**

Mini-laparoscopic surgery appears as a further possibility to minimize surgical trauma by reducing the size of the ports without decreasing the extent and effectiveness of the procedures.

### Mini-laparoscopic surgical staging in locally advanced cervical cancer

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#### Background

In recent years, mini-laparoscopic approach using 3-mm instruments has become popular in gynaecological surgery. Cervical cancer patients with para-aortic lymph node metastasis are treated by extended abdominal radiotherapy to the para-aortic lymphatic area. Therefore, PALN assessment in locally advanced cervical cancer is an important procedure that may change the treatment modality. The aim of this study was to investigate the feasibility of mini-laparoscopic (5-mm scope and 3-mm/5-mm instruments) paraaortic lymphadenectomy in women with locally advanced cervical cancer.

#### Methods

The patients with locally advanced cervical cancer who underwent para-aortic lymphadenectomy with or without ovarian transposition in a tertiary university hospital by mini-laparoscopic (n=9) surgery were included in the study.

#### Results

The mean age was 41.25±9.50 years, and BMI was 24.5±3.24 kg/m<sup>2</sup>. Along with paraaortic lymph node dissection, 5 patients underwent ovarian transposition, bilateral salpingectomy, and resection of pelvic bulky lymph node; 1 patient underwent bilateral salpingo-oophorectomy, and resection of pelvic bulky lymph node; 3 patients underwent bilateral salpingo-oophorectomy. The mean operation time was 205±51.4 minutes. External iliac vein injury and chylous ascites occurred in the same patient who underwent ovarian transposition, bilateral salpingectomy, and resection of pelvic bulky lymph node. Vein injury was repaired by primary suture intraoperatively, and chylous ascites that occurred in the postoperative period was managed conservatively. The mean number of removed paraaortic lymph nodes was 15.89±7.61. The mean duration of hospitalisation was 5±3.02 days. All of the patients received chemoradiotherapy within 20 days of surgery.

#### Conclusions

Mini-laparoscopic PALN dissection appears to be a safe and adequate surgical option for locally advanced cervical cancer patients with the potential for faster rehabilitation. Nevertheless, additional studies are required to confirm these findings and to specify the long-term outcome of this technique.

**Primary enlarged ovarian leiomyoma - Laparoscopically managed: A case report**

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**Background**

Primary ovarian leiomyoma is a very rare benign tumour accounting for about 0.5%-1% of all benign ovarian tumours and it usually occurs between the 20th and 65th year of age. It is rarely diagnosed pre-operatively because of the condition's rarity and the difficulty in distinguishing it from the other types of solid pelvic masses. Since the first case, which was identified by Sangalli in 1862, fewer than 100 cases have been reported in total.

**Methods**

Case report: A 43-year-old (Parity: 1 - Normal vaginal delivery, no miscarriages reported) woman presented to our clinic, complaining of abdominal bloating and mild pelvic tenderness for about 1 year. She had not undergone any routine gynae examination for at least the last 5 years. She reported a mean menstrual cycle of 25 days, and her period lasted for 5 days on average. She had never undergone any abdominal surgery in the past and she is only on T4 50µgr/day due to hypothyroidism. No other medical conditions reported nor family history. Regarding her social habits, the patient is a smoker (30 pack-years) and a social drinker. Transvaginal ultrasonography revealed a left enlarged adnexal mass of 74.3 x 44.1 mm that showed an homogeneously isoechoic pattern. Doppler ultrasonography did not detect any pathological blood flow. Pelvic MRI showed a 72 x 50 mm left multilobular adnexal formation with a strong low signal on T2 images. Initially, based on imaging, it was presumed for a uterine fibroid or an ovarian thecoma (with the later diagnose being the dominant one). Finally, a laparoscopy was performed under general anaesthesia and the adnexal mass was found having obvious ovarian origin, distinctly separated from the uterus and exhibited no adhesion to the surrounding structures. Both ovaries were removed laparoscopically, as the right one was found quite enlarged too. After surgery, histology and immunohistochemistry revealed a diagnosis of primary ovarian leiomyoma.

**Results**

Most ovarian leiomyomas reported in literature are asymptomatic and are diagnosed incidentally during a physical examination, imaging or surgery. They are often misdiagnosed preoperatively such as uterine leiomyomas, ovarian fibromas or endometriomas. In our case, clinically there was mainly a feeling of abdominal fullness, and the mass was identified as a possible ovarian fibroma or an enlarged broad ligament leiomyoma (on MRI). Later in theatre, it was presumed for a possible ovarian thecoma. Furthermore, its maximum diameter is remarkably larger comparing with the vast majority of the reported ovarian leiomyomas.

**Conclusions**

We present a very rare case of a primary enlarged ovarian leiomyoma which was laparoscopically managed. If the findings on imaging are suggestive of fibroma or thecoma, the diagnosis of ovarian leiomyoma should be also taken into account.

## Surgical Management of Urinary Tract Endometriosis: A Case Series from Pontificia Universidad Católica de Chile

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### Background

Urinary tract endometriosis (UTE) is an infrequent entity and presents a complex challenge both in diagnosis and management. This case series aims to present the diagnostic process, surgical management, and postoperative outcomes of patients who underwent surgery for UTE at the Clinical Hospital of Pontificia Universidad Católica de Chile (CHPUC).

### Methods

Retrospective observational study. We conducted a review of medical records of patients who underwent surgical intervention for UTE between 2014 and 2023 at CHPUC. Data regarding patient demographics, clinical presentation, imaging study, surgical techniques, intraoperative findings, and postoperative follow-up were collected from the electronic clinical records and subsequently analysed.

### Results

Twelve patients with UTE were identified, all of whom presented ureteral endometriosis (100%). Additionally, three patients presented bladder endometriosis (25%), while no cases of kidney involvement were observed. Three patients (25%) presented severe compromise of renal function due to obstructive uropathy secondary to ureteral endometriosis. The mean age at presentation was 38 years. Common presented symptoms included chronic pelvic pain, dysmenorrhea, catamenial dyschexia and dyspareunia. Three patients were asymptomatic, and the diagnosis was a finding in imaging studies requested for another reason. All patients were evaluated by a multidisciplinary team, including gynaecologists, urologists, and digestive surgeons when necessary. The most frequently initial imaging study used was pelvic MRI. When urinary tract involvement was suspected, CT urogram and DMSA Kidney Scan were performed. The surgical approach was laparoscopic in all cases. One patient (8,3%) required conversion to laparotomy. The surgical technique varied based on the extent and location of endometriotic lesions, and the need of preserving fertility, including lesion excision or ablation, hysterectomy with salpingectomy, ureterolysis (25%, n=3), ureteroneocystostomy (50%, n=6), partial cystectomy (16,7%, n=2) and nephrectomy (25%, n=3). Postoperatively, most patients experienced symptomatic improvement.

### Conclusions

UTE presents a diagnostic and therapeutical challenge. It is crucial to maintain a high level of suspicion, as delayed diagnosis can lead to permanent compromise of renal function, in some cases requiring nephrectomy. Surgical management can lead to favourable outcomes in appropriately selected patients. A joint multidisciplinary management including gynaecologists, urologists, and radiologists, involving experienced surgical teams, through the design of an individualized surgical strategy is essential to define the optimal treatment for these patients. Further studies are warranted to refine surgical techniques and enhance our understanding of long-term outcomes in this patient population.

**What else to look for in advanced uterine prolapse? – multiple bladder calculi - case presentation**

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**Background**

The objective is to draw attention to the examination of advanced uterine prolapse and the hidden aspects of the urine stasis that can lead to vesicolithiasis. Multiple bladder calculi are rare in females. Long-standing genitourinary prolapse can lead to such a pathology without any previous symptoms.

**Methods**

This case report is of a 71-year-old female patient who was referred to our department with uterine prolapse stage 4. She had mild difficulty urinating, but her main symptom was the pain and the lesions that started to appear, affecting her quality of life. Previous ultrasound showed no pathological findings of the uterus, and the Pap test was normal. We performed colpocleisis and perineoraphy, and 72 hours after surgery, the patient experienced hypogastric pain. Abdominal and pelvic examination showed a hard, mobile formation 7/7 cm, very sensible to palpation. A cystoscopy was performed that showed multiple bladder calculi and continuous bladder lavage along with antibiotic therapy was initiated. Computer tomography revealed bilateral ureterohydronephrosis with a bladder with multiple infracentrimetric stones, with the largest ones having a diameter up to 42/21 mm.

**Results**

Cystoscopy was performed again after 2 days of continuous bladder lavage, successfully removing microcalculi by intensive lavage with the remaining 3 calculi that were later extracted through cystostomy.

**Conclusions**

Our case was impressive in terms of rarity and the unexpected worsening of the urinary symptoms after the surgery. Advanced uterine prolapse is a risk factor for bladder obstruction and, consequently, chronic infections and the formation of calculi. An assessment of the bladder should be performed in women with long-term advanced uterine prolapse for better minimally invasive management.

**ABST-0388 - P274**

**ePoster and Video Presentations**

**Inhaled methoxyflurane (Penthrox®) use in the outpatient and ambulatory setting: a systematic review.**

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### **Background**

To assess whether Penthrox® (methoxyflurane), a self-administered disposable single-use handheld inhaler licensed as an emergency analgesic in adult trauma patients, can provide better pain relief for elective, outpatient interventional procedures compared to other methods of pain control or placebo.

### **Methods**

Systematic Review.

A comprehensive literature search of CENTRAL, Medline, Emcare, Embase, ClinicalTrials.gov and CINAHL was carried out from inception to the 6<sup>th</sup> of November 2023. All published studies including randomised controlled trials (RCTs), cohort studies and case-control studies investigating Penthrox® for pain relief, during and/or after an interventional procedure, were included. Two independent reviewers identified eligible studies and retrieved data.

**Setting:** Ambulatory or outpatient clinical settings

**Participants:** Conscious patients undergoing an elective, interventional procedure

**Interventions:** Penthrox® or other pain control interventions

**Main outcome measures:** Pain during or after the procedure, anxiety, adverse effects, patient satisfaction and acceptability.

### **Results**

The literature search yielded 1189 records, and 12 studies were eligible for inclusion; five RCTs and seven non-randomised studies of interventions (NRSIs). A meta-analysis was not possible due to the heterogeneity of the studies. Penthrox® was used for a range of procedures across five medical specialities: gastroenterology, gynaecology, haematology, orthopaedics and urology. Two RCTs showed a significant reduction in intra-procedural pain when Penthrox® was compared to placebo. However, the other three RCTs where Penthrox®, in isolation or combined with local anaesthetic, was compared to either placebo or IV sedation showed no significant differences in pain or comfort level. Similarly, the NRSIs showed variable results. No relative differences in anxiety reduction between Penthrox® and other pain control methods were found in five comparative studies assessing this outcome. However, most patients were satisfied (63 to >95%; seven studies) with Penthrox® and seven out of eight studies reported that the majority of participants would use it again (46.8% to 95%; eight studies). No serious adverse events were reported.

### **Conclusions**

Penthrox® (methoxyflurane) shows promise as an analgesic for invasive, elective interventional procedures in the outpatient setting, although the relative benefits appear to vary according to the type of intervention and the comparator pain control measures. As planned and invasive procedures increase across medical specialities, there is a pressing need for robustly conducted, large, generalisable multicentre RCTs to evaluate the effectiveness of Penthrox® to reduce pain and enhance patient experience.



### Ovarian vein thrombosis: a hysteroscopic complication?

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#### Background

Introduction: Ovarian vein thrombosis (OVT) is an extremely rare condition usually associated with the postpartum period (incidence of 1:3000 births). However, isolated cases have been reported in women outside the context of pregnancy especially after surgical procedures such as minimally invasive ones or in malignancy settings. The underlying pathophysiological mechanisms involve endothelial injury, venous stasis and hypercoagulability. Clinical presentation is often nonspecific which complicates early diagnosis leading to delays in initiating treatment. There is a growing need for clear guidelines for the diagnosis and clinical management of this pathology.

Objectives: The aim objective is to report a case of OVT after a hysteroscopy.

#### Methods

Reviewing patient's clinical files and data.

Overview of research focusing on Ovarian vein thrombosis.

#### Results

A 44-year-old gravida 2 para 2 female using a vaginal ring as a contraceptive method was referred to gynaecology consultation due to abnormal uterine bleeding. Recent gynaecological ultrasound described a heterogeneous and enlarged uterus due to a subserosal fibroid measuring 64 mm and an image suggesting a large endometrial polyp. She underwent surgical hysteroscopy. In the postoperative period she developed symptoms of urinary tract infection and was empirically treated. Due to persistent urinary symptoms and a positive urine culture for multidrug-resistant *Klebsiella pneumoniae*, she sought emergency care. The patient complained of general malaise, suprapubic pain, dysuria and foul-smelling urine. On physical examination she was subfebrile with tenderness on palpation of the suprapubic region without signs of peritoneal irritation. Laboratory tests revealed mild leucocytosis (10,300 cells/mm<sup>3</sup>) without neutrophilia and elevated C-reactive protein (56 mg/L). An abdominal ultrasound revealed a hypoechogenic, homogeneous, vascularized lesion in the right adnexal region measuring approximately 79x58 mm prompting further investigation. Tumour markers CA 125 and CA 19.9 were within normal limits. The computed tomography showed a globular uterus due to a probable fibroid measuring 78 mm in the uterine body and fundus causing mass effect on the right adnexal region. Sinuous varicosities were also observed in the lateral aspect of the uterus with one of them showing an image suggestive of subocclusive thrombus extending to the lower pole of the right kidney. The patient started therapy with enoxaparin and was discharged with a prescription of edoxaban 60 mg per day until clinical and imaging re-evaluation.

#### Conclusions

OVT presents with nonspecific abdominal symptoms and does not occur exclusively postpartum. It is required a high index of suspicion to allow an early diagnosis in patients who recently went through surgical procedures, thus reducing the associated morbidity and mortality.

**Comparative Analysis of Robotic-Assisted Gynae-oncological Surgeries: A Multi-Year Audit from 2021 to 2024 at District Hospital in UK**

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**Background**

Aims:

This study aims to evaluate the outcomes, efficacy and complications of robotic-assisted gynae-oncological surgeries over four years from 2021 to 2024. By analysing data across multiple years, the study seeks to identify trends, improvements, and areas for further enhancement in robotic-assisted surgical techniques.

Objectives:

1. To assess the perioperative outcomes, including blood loss, operating time, and hospital stay.
2. To evaluate postoperative complications and long-term outcomes.

**Methods**

Data from robotic-assisted gynae-oncological surgeries performed between 2021 and 2024 were retrospectively collected from a single institution in UK. Patient demographics, surgical details, perioperative outcomes, and postoperative complications were analysed. Statistical analysis was conducted using SPSS version 26.0. The Shapiro-Wilk test was used to assess the normality of continuous variables. Comparisons between groups were performed using the t-test or Mann-Whitney U test for continuous variables and the chi-square test for categorical variables.

**Results**

The study included 240 patients, with a mean age of 56.4 years and a mean BMI of 29.1 kg/m<sup>2</sup>. The most common procedures were robotic-assisted total hysterectomy (RATH) and robotic-assisted bilateral salpingo-oophorectomy (RABSO).

Key findings include:

**Operative Time:** The mean console time decreased from 122 minutes in 2021 to 86 minutes in 2024.

**Blood Loss:** Average estimated blood loss (EBL) reduced from 80 mL in 2021 to 47 mL in 2024.

**Hospital Stay:** The mean hospital stay post-surgery decreased from 2.5 days in 2021 to 1.8 days in 2024.

**Complications:** The rate of postoperative complications, such as infections and readmissions, showed a declining trend over the years, with a significant reduction in 2024 ( $p < 0.05$ ).

Histological examination revealed a range of findings, including endometrial adenocarcinoma (30%), benign ovarian cysts (25%), and no malignancy in 45% of cases.

The most significant reduction was observed in conversion rates to open surgery.

**Conclusions**

The results demonstrate substantial improvements in the outcomes of robotic-assisted gynae-oncological surgeries over the four years. The decline in operative time, blood loss, complication rates and hospital stay suggests increased efficiency and safety of robotic approach.

Comparative analysis with published literature shows similar trends. Studies have consistently shown that robotic-assisted surgeries for gynae-oncology result in lower blood loss, shorter hospital stays, and fewer complications compared to traditional laparoscopy and open surgeries. Although, the operative time can initially be longer due to the learning curve.

Our multi-year audit highlights the progressive advancements and benefits of robotic-assisted gynaecological surgeries. Continuous improvements in surgical techniques and patient management have led to better perioperative outcomes and reduced complications. Future studies should focus on long-term patient outcomes and the cost-effectiveness of robotic surgery in gynaecology.

**Experiences with the introduction and feasibility of the first-ever multi-disciplinary deep endometriosis excision using a new robotic system: the Cambridge Medical Robotics Versius® system**

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**Background**

While the literature reports the feasibility of the Versius® system for gynaecological surgeries in unselected cohorts, this is the first case series reporting the feasibility of multi-speciality deep colorectal endometriosis excision using all three techniques, rectal shave, disc and segmental bowel resections following its introduction into a tertiary endometriosis unit.

**Methods**

Patients undergoing Versius®-assisted surgery consented to data collection on demographics and perioperative outcomes. Data were collected prospectively from the commencement of the robotic surgical programme.

**Results**

During the 6-month introductory period, 29 patients underwent surgery, with 5 women having a multidisciplinary excision for colorectal disease. All had pelvic pain, and one had ureteric obstruction leading to hydronephrosis in addition. All required colorectal input, and one additionally needed urological input. Colorectal input included rectal shave, disc excision, appendicectomy, ileocecal resection and anastomosis, sigmoid resection and anastomosis, low anterior resection and anastomosis and defunctioning ileostomy. While disc excision (1/5), bowel mobilisation and anastomosis (4/5) were performed robotically, resection of the segment was achieved through a 2-cm umbilical extraction (1/5) and lower midline laparotomy (1/5). Urological input involved laparoscopic nephrectomy and ureteric reimplantation through midline laparotomy. No cases needed conversion to laparotomy for surgical complexity, but midline laparotomy for ureteric reimplantation was used to perform segmental bowel resection in one case.

There were no reoperations and no major complications. 1 patient was readmitted within 30 days with a small pelvic haematoma managed conservatively.

Characteristics		Value
Age (years), mean ± SD		39 +/-6.2
BMI (kg/ m2), mean ± SD		25.6 +/-8.7
Preoperative MRI (no. of patients):	Adenomyosis	3
Endometrioma (no. of patients), maximum diameter (mm), median (range)	3, 37 mm (0-50 mm)	
Deep endometriosis (any form)	5	
Bowel nodule (no. of patients), maximum diameter (mm), median (range)	4, 15 mm (0-40 mm)	
Hydronephrosis	1	
Previous surgery		2
ASA (no. of patients)	1	0
2	1	
3	0	
4	4	
Console time (minutes), median (range)		149 (107-336)
Robotic unit set-up time (minutes), median (range)		9 (6-13)
Surgery performed, no. of patients (%)	Endometriosis excision	5 (100%)
Hysterectomy	2 (40%)	
Rectal shave	1 (20%)	
Disc excision	1 (20%)	
Segmental resection	3 (66.7%)	
Stoma	1 (20%)	

Nephrectomy, ureteric reimplantation	1 (20%)	
Needed laparotomy, no. of patients (%)		1 (20%)
Blood loss (ml), mean $\pm$ SD		200 $\pm$ 176.8
Length of stay (days), median (range)		4 (4-14)
Postoperative complication, Clavien-Dindo grade III/IV, no. of patients (%)		1 (20%)

### Conclusions

The Versius® system is safe and effective for complex multi-specialty surgeries. Its open console allows for better surgeon interaction and small articulated instruments enable better control of microdissection, especially for deep endometriosis. The outcomes suggest it can be as effective as other robotic platforms and has the potential for further expansion.

**Is the number of caesarean section scars a risk for bladder dissection during Total laparoscopic hysterectomy? 17-year experience in an experienced referral centre.**

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**Background**

Hysterectomy is the second most performed gynaecological surgical procedure in reproductive age women, only surpassed by caesarean section (CS). Chile is positioned among the countries with the highest rates of CS in the world, with a 40% average rate during the last years. Due to this progressive increase, the number of patients with a history of previous CS undergoing a hysterectomy will increase and so will surgical difficulties and complications related to surgical adhesions. Urinary tract injuries are common complications, and the bladder is the most affected site. In 2015 we published our first experience with total laparoscopic hysterectomy (TLH) in this group of patients. The objective of this study is to describe our 17-year experience in a teaching hospital setting.

**Methods**

Retrospective analysis of women who underwent TLH for benign, premalignant, and malignant disease from 1/1/2006 to 31/12/2023 at Clinical Hospital of Universidad Católica and San Carlos de Apoquindo Clinic. Patient demographics, operative data and number of previous CS were analysed. All hysterectomies were performed in a teaching setting, most of them operated by a third-year or fellowship resident assisted by an experienced surgeon.

**Results**

1528 TLH were performed. Data about previous CS scars was recovered for 1521. 53% (n=804) patients had no previous CS; 23,3% (n=355) had 1 CS; 16,4% (n=250) 2 CS; 6,2% (n=94) 3 CS and 1,2% (n=18) had 4 CS. Average surgical time was obtained for 1192 patients; 112.3 min for 0 CS; 119.2 min for 1 CS; 118.6 min for 2 CS; 111.1 min for 3 CS and 109.4 min for 4 CS. There were 38 major complications (2.5%), 16 urological. Of these, 10 (0.65%) were inadvertent cystotomies: 3 (0,4%) for 0 previous CS; 2 (0,6%) for 1 CS (OR 1.1; IC 95% 0.2065-6.215); 3 (1,2%) for 2 CS (OR 2.4; IC (95% 0.5399-10.927); 2 (2,1%) for 3 CS (OR 4.3; IC 95% 0.7855-24.064) and 0 for 4 CS.

**Conclusions**

Surgical adhesions due to previous CS can make hysterectomy technically difficult and likely carry a higher risk of perioperative complications. It is expected that as the number of CS increases, the anatomical distortion and therefore the difficulty of the procedure will be greater. Therefore, TLH in these patients presents an important clinical-surgical challenge. A previous study at our institution showed that performing TLH in patients with previous CS, regardless of the number of CS, is a safe procedure with the use of a standardized technique and a well-trained team. In our setting it is increasingly common to see patients with 3 or more CS scars, and this study shows that this does not determine a higher risk of bladder injury when performed by experienced surgeons.

**Recurrent ipsilateral laparoscopic cornuotomy – one of four cases in the literature**

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**Background**

Laparoscopy is the gold standard approach for most benign gynaecological surgeries including the management of interstitial ectopic pregnancy.

In the United Kingdom, during the period 2018-2020 there were 109 direct maternal deaths over 2.101.829 pregnancies. In the same period there were 9 maternal deaths related to ectopic pregnancies (EP).

Interstitial pregnancy (IP) is an EP implanted in the intramural portion of the tube. It has an incidence of 2% of all EPs, it is diagnosed by ultrasound scan (USS) or magnetic resonance (MRI). It is commonly confused with cornual pregnancy, which is a different entity. The management can be expectant, medical or surgical depending on the individual circumstances.

**Methods**

We present the case of a 28 years old, with a body mass index of 52 (150 kilograms), and multiple previous surgeries (open appendectomy, midline laparotomy with right salpingo-oophorectomy for ovarian mucinous carcinoma and laparoscopic cholecystectomy). She first presented with undiagnosed right sided interstitial pregnancy, which was managed with laparoscopic cornuotomy. Five months later represented with a recurrent right sided IP. Her management this time required MRI, and multidisciplinary approach with multi consultant discussion. She underwent a second laparoscopic cornuotomy. Formal consent for publication and presentation was obtained from the patient.

**Results**

To our knowledge this is one of a total of four cases like this reported in the literature. Recurrent laparoscopic management of an ipsilateral recurrent IP is very rare. The case is presented with literature review and supporting video, describing the index surgery and the recurrent ipsilateral cornuotomy.

**Conclusions**

Laparoscopic management of complex EP is not only desirable, but also feasible even in obese patients with multiple previous open surgeries. Unusual and complex EP can require an MDT approach and even MRI to confirm diagnosis.

## Robot assisted TU-LESS Comprehensive Staging Surgery and Bowel Resection of Fallopian Tube Cancer

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### Background

Transumbilical laparoendoscopic single-site surgery (TU-LESS) presents a myriad of advantages with better clinical outcomes in terms of easier specimen retrieval, less postoperative pain, less blood loss, shorter hospital day, and faster onset chemotherapy than laparotomy. Robotic surgery offers three-dimensional (3-D) visualisation, tremor-free movements, and enhanced instrument dexterity. The robot-assisted transumbilical laparoendoscopic single-site surgical pathway (R-LESS) approach not only incorporates the advantages mentioned above but also overcomes the barriers of laparoscopy and laparotomy. We aim to present this ingenious approach that can be utilised for both gynaecological and intestinal surgeries, namely R-LESS.

### Methods

All procedures were performed with the da Vinci Xi Surgical System (Intuitive Surgical Inc., USA). A Robotic-single port device (Kangji Medical Inc., China) with four access points was installed through a 3-cm umbilical incision. The 3D camera, fenestrated bipolar forceps, and monopolar scissors were placed at 12 o'clock, 9 o'clock, and 3 o'clock positions of the port, respectively. The primary surgeon can perform pelvic and upper abdominal surgical procedures. And the assistant can use conventional laparoscopic instruments, entering and exiting through the channel located at the 6 o'clock position of the port. For intestinal surgery, the port cover was removed, while the protective film around the umbilical incision was retained. The movable intestine could be pulled out through the umbilicus, allowing for procedures such as exploration, intestine resection, intestine anastomosis and specimen retrieval.

### Results

Robot assisted TU-LESS Comprehensive staging surgery for fallopian tube cancer and bowel resection was successfully performed without complications. The patient recovered quickly and received subsequent treatment on schedule.

### Conclusions

As demonstrated in the video, we witness the seamless execution of minimally invasive procedures through a single port, showcasing the potential for even complex intestinal resection surgeries via the umbilicus. Such advancements signify a paradigm shift in the management of various gynaecological cancers. With R-LESS, we anticipate a transformative impact on surgical practices, promising improved patient outcomes and enhanced surgical precision.

<https://player.vimeo.com/video/945400448?autoplay=1>



### **Two-Port Robotic-Assisted Hysterectomy**

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#### **Background**

Demonstrate the two-port robotic-assisted hysterectomy technique.

#### **Methods**

Two-port Laparoscopic Hysterectomy, with appropriate uterine manipulator and patient selection, can be feasible and safe. Limiting the number of incisions/ports has potential benefits for recovery. There are limited cases published on two-port robotic-assisted hysterectomy, but the wristed articulation potentially offers even better access.

#### **Results**

Two cases are demonstrated. Two 8mm incisions are made at the umbilicus and suprapubic midline. The scope is introduced via the umbilicus at which point it is determined if further ports are required, if for example there is deep endometriosis, so that safety is not compromised. The monopolar scissors and advanced bipolar vessel sealing device are utilised via the accessory port. Arms 1 and 3 of the DaVinci Xi are used to prevent clashing. A nasogastric tube is introduced to provide rudimentary suction/irrigation.

The first case, performed for abnormal uterine bleeding shows an otherwise normal pelvis. Uterine mobilisation is performed with the Secufix manipulator. Bilateral salpingectomy was performed with assisted traction via the colpotomy.

The second shows an adenomyotic/fibroid uterus. There was co-incidental endometriosis on the left pelvic side wall and uterosacral ligament. Uterine mobilisation is performed with the V-Care manipulator. Following hysterectomy, bilateral salpingectomy and excision is performed with assistance via the colpotomy.

The colpotomy is closed with continuous V-Loc 2-0 in both cases.

Both patients' postoperative recovery was straightforward.

#### **Conclusions**

Two-Port Robotic-assisted hysterectomy is feasible in straightforward cases. With careful assistance, the need for further port placement is not required if there is minor coincidental pathology.

<https://player.vimeo.com/video/945726978?autoplay=1>

**Robotic-Assisted Davydov Procedure for Neovaginal Creation in Mayer-Rokitansky-Küster-Hauser Syndrome: A Stepwise Demonstration**

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**Background**

When initial self-dilation with multidisciplinary support fails for vaginal agenesis, the Davydov procedure is performed as a surgical approach to neovaginal creation. This video demonstrates the step-by-step process of a Robotic-assisted Davydov procedure for neovaginal creation in Mayer-Rokitansky-Küster-Hauser Syndrome (MRKHS).

MRKHS results in the absence of the proximal vagina and uterus due to Müllerian duct disorder during embryonic development, making it the primary cause of vaginal agenesis. Affected individuals typically exhibit a typical female karyotype and phenotype.

**Methods**

The Robotic-assisted Davydov procedure is comprised of 7 steps:

- 1) Patient positioning and port placement
- 2) Define the anatomy ( $\pm$  salpingectomy)
- 3) Create of a space for the neovaginal canal by dissecting rectovaginal space and vesicovaginal space
- 5) Line the neovagina with peritoneum,
- 6) Suturing peritoneal flaps to tissue(s) lining to perineum
- 7) Closure of peritoneal defects and neovaginal apex.

**Results**

A 27-year-old patient presents with primary amenorrhea and bilateral groin pain. Ultrasonography and MRI examinations confirm the diagnosis of Mayer-Rokitansky-Küster-Hauser Syndrome (MRKHS), with a karyotype of 46XX. Pelvic examination reveals a vaginal dimple measuring less than 1 cm in depth. The patient underwent a Robotic-assisted Davydov vaginoplasty and was discharged on post-operative day 1 with a soft mold inside the vagina. The soft mold was exchanged with a medium-sized rigid mold on post-operative day 3, and the patient was able to insert a full-size rigid mold on post-op day 6.

**Conclusions**

Robotic-assisted Davydov technique approach represents a promising, effective, and secure approach to vaginal reconstruction. The relative ease of mobilization, deep pelvic transposition and suturing of the peritoneal flaps with the aid of robotic-assistance, decreased likelihood of bowel-related complications and the resultant faster recovery process are the main advantages of this approach. The combination of robotic and perineal approaches enables more extensive and safer dissection of the neovaginal cavity together with more precise suturing of the peritoneal flaps.

<https://player.vimeo.com/video/945939429?autoplay=1>

### **Cervical Ectopic Pregnancy: Tips and Tricks For Laparoscopic Management**

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#### **Background**

To demonstrate a methodology for laparoscopic en-bloc resection of a cervical ectopic pregnancy using eight reproducible steps, focusing on minimizing potential blood loss and preserving fertility.

#### **Methods**

Surgical video outlining the steps of laparoscopic en-bloc resection of a cervical ectopic pregnancy using examples from a single case. A 27-year-old patient, gravida two, para one, presented with vaginal bleeding and a positive home pregnancy test. She had a history of one prior caesarean section via a low transverse uterine incision. On transvaginal ultrasound, she was found to have an abnormally implanted pregnancy within the proximal cervical canal. The pregnancy measured approximately 6 weeks gestational age, and cardiac activity was present.

#### **Results**

After discussion of various management options, the patient was consented for robotic-assisted laparoscopic en-bloc resection of the cervical ectopic pregnancy with a plan for possible repair of isthmocele. The surgical approach highlights eight reproducible steps, including: 1) utilization of pelvic retroperitoneal spaces to delineate the borders of the ectopic pregnancy; 2) identification of ureters; 3) skeletonization of uterine arteries; 4) ensuring haemostasis with the use of laparoscopic bulldog clamps and dilute vasopressin; 5) identification of the cervicovaginal junction; 6) removal of the ectopic pregnancy en-bloc; 7) identification of the cervical canal; 8) reapproximation of the cervix in multiple layers.

#### **Conclusions**

Cervical ectopic pregnancy can be treated surgically through a systematic minimally invasive approach. Timely intervention and the surgical techniques as demonstrated are essential for ensuring haemostasis, optimizing outcomes, and preserving fertility in these rare cases.

<https://player.vimeo.com/video/948429695?autoplay=1>

**Robotic-Assisted Nodectomy with Discoid Excision - a method to facilitate transanal excision in nodules >3cm**

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**Background**

Colorectal endometriosis is seen in up to 12% of patients with deep endometriosis. Surgical strategies include bowel shave, discoid, or bowel resection. Discoid resection is typically reserved for singular nodules measuring ≤3 cm in size and >7 mm deep; however, more recently surgical groups are performing successful discoid resection on larger/multifocal nodules<sup>1-3</sup>.

**Methods**

Our video concerns a 35-year-old, para 0, who had 4 previous laparoscopic excisions of endometriosis. MRI pre-op demonstrated a rectal nodule 13cm above the anal verge, 3cm in length with 10mm of muscularis thickening. The MDT concluded that segmental resection was likely.

**Results**

Intraoperatively, the extensive endometriosis was excised using SOSURE technique (#ENZIAN: P1, O0/2, T3/2, A1, B2/1, C3, FA). The rectal nodule was assessed and with expertise of both consultant gynaecologist and colorectal surgeon, a discoid resection performed. The bowel lumen was opened for effective debulking of the nodule. This enabled all disease to be fed into the CDH circular endostapler, despite the nodule initially being >3cm, and avoided a more significant segmental resection. Post excision, indocyanine green and flexible sigmoidoscopy demonstrated no anastomotic leakage or stenosis respectively. Blood loss was <100ml and post operative recovery was uneventful.

**Conclusions**

Advanced surgical skills are required to perform effective and safe discoid resection. Thorough preoperative evaluation is of utmost importance to plan the surgical approach but should always be reassessed intraoperatively to confirm the best strategy to optimise patient outcome. Further studies are needed to establish clear eligibility criteria for each surgical strategy to guide surgeons in their approach.

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2. Wojtaszewska A, Lewin J, Jurkovic D, Saridogan E, Vashisht A, Cutner A, et al. Ultrasound Prediction of Segmental Bowel Resection in Women with Rectovaginal Endometriosis: A Single-Center Experience. *J Minim Invasive Gynecol.* 2022;29(9).
3. Roman H, Dennis T, Forestier D, François MO, Assenat V, Tuech JJ, et al. Disk Excision Using End-to-End Anastomosis Circular Stapler for Deep Endometriosis of the Rectum: A 492-Patient Continuous Prospective Series. *J Minim Invasive Gynecol.* 2023;30(2).

<https://player.vimeo.com/video/949960766?autoplay=1>

ABST-0518 - VP176

ePoster and Video Presentations

### Robotic assisted retrograde hysterectomy — Tips and Tricks —

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#### Background

At our department, this retrograde approach is routinely selected for most robotic assisted hysterectomies in case of severe endometriosis with Obliterated Cul-de-sac.

#### Methods

We describe our experience regarding the robotic assisted retrograde hysterectomy for the revised-ASRM classification Stage IV endometriosis with Obliterated Cul-de-sac. In our opinion the retrograde approach allows to get optimal and constant protection of the rectum.

#### Results

Laparoscopic surgery requires appropriate counter traction. On the occasion of adhesiolysis of the rectum with direct grip, conventional laparoscopic surgery can adjust the grip and traction force. However, this cannot be done in the case of robotic surgery that involves such a strong force, especially its direct grip which might cause organ injuries. On the other hand, in the case of a retrograde hysterectomy, in which the target of gripping or pulling is the uterus that's removed and no longer needed, the strong force in gripping or pulling robotic surgery inherently involves does not pose any problems, as it is not needed with the rectum which should be preserved. Therefore, retrograde hysterectomy is suited for robotic surgery.

#### Conclusions

The surgeon should be very careful with the presence of the ureter during operation, although the safety of robotic assisted retrograde hysterectomy was suggested in the patient with severe endometriosis. However, these operations were performed by experienced surgeons and the surgical outcome of our study did not apply to less skilled surgeons. Therefore, further studies are needed.

<https://player.vimeo.com/video/950475450?autoplay=1>

### Robotic Excision of Bladder Endometriosis: A Comprehensive Surgical Approach

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#### Background

Bladder endometriosis is a challenging condition that requires a multidisciplinary and meticulous surgical approach for successful excision. Preoperative imaging with MRI plays a crucial role in localizing the endometrial nodules within the bladder wall. This video presentation showcases the robotic excision of bladder endometriosis, highlighting the preparatory steps and surgical techniques employed for optimal outcomes.

#### Methods

The preoperative preparation included a multidisciplinary team (MDT) approach, preoperative ureteric stenting, and antibiotic coverage to ensure a safe and effective surgical intervention. The surgical procedure involved robotic-assisted excision of the endometrial nodule located within the bladder wall. The surgical approach included opening up the paravesical space, isolating the nodule, and meticulously shaving it off the uterus into the bladder. Subsequently, the bladder was opened, and the nodule excised up to the bladder base. The closure was performed in layers to ensure adequate reconstruction and minimize postoperative complications.

#### Results

The video demonstrates the step-by-step approach to robotic excision of bladder endometriosis, emphasizing the precision and meticulous technique required for successful nodule removal. The use of robotic assistance allowed for enhanced visualization and manoeuvrability in the confined pelvic space, leading to precise excision and optimal preservation of surrounding structures.

#### Conclusions

Robotic excision of bladder endometriosis is a valuable surgical approach that offers precise and effective removal of endometrial nodules while minimizing the risk of complications. The comprehensive approach outlined in this video presentation highlights the importance of preoperative planning, multidisciplinary collaboration, and meticulous surgical technique in achieving successful outcomes for patients with bladder endometriosis. Robotic surgery improves the preservation of healthy tissue which is essential for maintaining pelvic function in large bladder nodules.

<https://player.vimeo.com/video/950634008?autoplay=1>

**An excision of remnants of imperforated hymen**

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**Background**

Mullerian anomalies, including imperforate hymen, often present unique challenges to reproductive health. Surgical intervention is frequently necessary to address these anomalies and their associated issues. The following video presentation details a case involving the excision of a resealed hymenal remnants, which had previously been excised when the patient was 13 years old.

**Methods**

A 29-year-old female was referred to the gynaecology clinic due to presenting symptoms of dyspareunia, failed cervical smear attempts, and recurrent urinary infections following her inaugural sexual encounter. Transvaginal ultrasonography was precluded by the absence of the vaginal orifice. Subsequent MRI imaging of the abdomen and pelvis with contrast revealed an anteverted uterus measuring 9x4x5.5 cm without evidence of fibroids or adenomyosis. The endometrial cavity, measuring up to 5mm, exhibited a smooth appearance with a normal cervix. Additionally, minimal haemorrhagic fluid was noted in the vagina, with the upper two-thirds appearing patent and unremarkable, while the lower third demonstrated grossly normal features. No significant abnormalities were observed in the distal urethra; both pelvic ovaries and kidneys were deemed unremarkable. In collaboration with a multidisciplinary team, a decision was made to examine under anaesthesia, followed by the complete excision of the remnants of the resealed hymen.

**Results**

Following the excision of the resealed hymenal remnants, the vaginal canal anatomy was successfully restored. A subsequent cervical smear was conducted, indicating the restoration of normal vaginal function and capacity. These results demonstrate the efficacy of surgical intervention in addressing the patient's presenting symptoms and improving her reproductive and sexual well-being.

**Conclusions**

This case highlights the successful surgical management of a resealed vaginal hymen in a 29-year-old woman. Such cases underscore the importance of prompt recognition and appropriate intervention for Mullerian anomalies to optimise reproductive health outcomes.

<https://player.vimeo.com/video/951250879?autoplay=1>

**ABST-0571 - VP122**

**ePoster and Video Presentations**

**A case of frozen pelvis and abdomen in a virgin: complete adhesionolysis, lap appendectomy and lap cholecystectomy**

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**Background**

Post laparotomy adhesions are one of the great challenges for all laparoscopists. More challenge is present in virgin patients in the Eastern countries, because you will never be able to insert a manipulator.

**Methods**

In this video we present a virgin patient suffering from severe chronic pelvic and dysmenorrhoea. The patient had a history of two laparotomies for dermoid cysts. The left ovary was not visualised by US. The patient had also sleeve gastrectomy one year ago with postoperative vomiting (more than expected after this period) with US revealing small gall bladder stone. So, the decision was to perform lap cholecystectomy with complete adhesionolysis.

**Results**

The initial view was frozen pelvis & abdomen. All types of adhesions were present; omental; peritoneal; intestinal and colonic. Using all types of adhesionolysis complete adhesionolysis was achieved. The appendix was chronically inflamed; so laparoscopic appendectomy using pretied Roeder's knot was performed. All these were performed through left & right ports only (higher than normal) for the sake of the next lap chole.

The general surgeon performed lap chole with addition of one 10 mm port and other 5 mm port only. The postoperative course was uneventful.

Dramatic improvement of pain and vomiting was achieved in a period of three months postoperatively. For more follow up to justify the results.

**Conclusions**

Zero adhesions is the aim when you perform lap adhesionolysis for pain.

More than one procedure can be performed in the same time, if cooperation and harmony between surgeons.

<https://player.vimeo.com/video/951235399?autoplay=1>



**Breaking Boundaries: Robotic Hymen-Preserving Technique for Myoma in Statu Nascendi**

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**Background**

Leiomyoma is the most common benign neoplasm of uterus. The management of prolapsed pedunculated submucous myomas, which may necessitate vaginal Access. In certain cultures, an intact hymen is often regarded as sign of sexual purity, particularly prevalent in the Middle Eastern societies. Vaginal access for surgical procedures in virgin patients is commonly deemed unacceptable. In this video we aimed to robotic management of myoma in statu nascendi in a virgin patient.

**Methods**

A 40-year-old, virgin patient presented to our clinic with menometrorrhagia of 6 months duration. Laboratory tests indicated anaemia, as her haemoglobin was 9 g/dl. Pelvic ultrasonography revealed a 5x6 cm leiomyoma protruding through to the cervical canal, 4x3 cm intramural myoma located on the anterior wall and 2 cm myoma on the posterior wall of the uterus. Due to the patient's request to preserve her hymenal integrity, we chose to employ a robotic abdominal approach for the surgical procedure. At the beginning of operation, the Douglas pouch was clearly visualized, and a horizontal posterior colpotomy was performed. The myoma was identified inside the vagina and delivered through the incision. The pedunculated myoma was coagulated and excised. The cervix was everted towards the abdominal cavity, and the external cervical os was observed. And the vaginal defect was repaired with barbed suture. The myomas located in the anterior and posterior walls of the uterus were removed and defect was repaired with barbed suture. The myomas were extracted by electrical morcellator.

**Results**

Following a smooth postoperative course, she was discharged from the hospital without any complications just 12 hours after the surgery.

**Conclusions**

In cases where patients with cervicovaginal myoma express a desire to preserve hymenal integrity, endoscopic surgery may present as a favourable option. Robotic surgery can be chosen in such cases, due to its enhancement of the surgeon's manoeuvrability.

<https://player.vimeo.com/video/951631041?autoplay=1>

**ABST-0634 - VP140**

**ePoster and Video Presentations**

### **Laparoscopic Approach to Huge Myomatous Uterus and Cystocele in a Single Session: A Case Report**

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#### **Background**

TLH is difficult in enlarging uteruses. This video shows us this method can be applied in cases where the pathology is primarily considered to be benign.

#### **Methods**

Following the GAA, PVV and iodination, the veress needle was entered through lee huang point. Starting with CO<sub>2</sub> insufflation and entering the ports for camera and equipment; the uterus was observed at the midline, at approximately 16w. There were 5x6cm subserous myoma at the fundus, 6x7 cm in the right lateral and 6x8 cm intracavitary myomas.

The operation was started with left salpinxectomy. Left ligament rotundum was ligated, burned and cut with the help of energy modalities. Through the incision made into the plica vesicouterina, the uterine and its branches were exposed on the left side and were ligated. The fundal located myoma was excised due to the difficulty of uterine manipulation and abdominal visualization and then sutured. Then right salpinxectomy was performed. The right lig. rotundum was ligated, cut, and the retroperitoneal area was partially entered, and the bladder plication was removed in anterior. Right a.uterina and collaterals were ligated. Bilateral ureters were visualized. The lig.ovari proprium, lig.cardinale and sacrouterina were ligated and cut. The bladder was dissected up to 2 cm below the line of the manipulator cuff and the piece was cut from the cervicovaginal junction. After the procedure, specimen was taken out as 3 pieces from the vagina to the outside of the abdomen. The cuff was sutured with no1 vicryl. Then the lateral suspension stage was started. The mesh which prepared as 2x3cm was placed on the front vaginal wall and it was reinforced with no1 ethibond suture. Then, over the bilateral spina iliaca posterior superior (sips) as 5 cm, it descends under the fascia with laparoscopic portegue, proceeding on the peritoneum and lig. The abdomen was entered from the rotundum line. The mesh arms were held on both sides and they were taken out of the abdomen under the fascia. The operation was ended after the tension was adjusted at the anatomic and functional level.

#### **Results**

The patient was discharged on post operative 2nd day without any complications.

#### **Conclusions**

Laparoscopic operations are getting harder to perform on patients with massive uteruses. It's safe to perform which is considered clean in pathological results. Limiting the surgery with hysterectomy on patients with genital organ prolapsus is considered as inadequate surgery. In this video, we applied TLH+BS+Lateral Suspension to the patient who had cosmetic concerns and cystoceles.

<https://player.vimeo.com/video/951699841?autoplay=1>

**ABST-0642 - VP143**  
**ePoster and Video Presentations**

**Retrograde dissection of bladder with previous caesarean sections**

*Farinaz Seifi<sup>1</sup>*

<sup>1</sup>*Yale University, OBGYN - MIGS, New Haven, USA*

**Background**

Patient with prior pelvic surgeries and caesarean sections requires lysis of adhesion.

**Methods**

Teaching robotic surgery to dissect the bladder.

**Results**

Retrograde dissection of bladder with lateral approach.

**Conclusions**

Lateral and retrograde dissection of bladder is a safe approach to prevent the bladder injury.

<https://player.vimeo.com/video/951714018?autoplay=1>

### Minimising Ureteric Injuries during Laparoscopic Hysterectomy for Broad ligament fibroids

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#### Background

With broad ligament fibroids, hysterectomy can be particularly more difficult due to high risk of bleeding and ureteric injuries. Broad ligament fibroids can either be true (primary) or pseudo (secondary), with true broad ligament fibroid arising from smooth muscle tissue of the broad ligament and false broad ligament fibroids arising from the uterus into the broad ligament with the uterine artery and ureter running laterally to the fibroid.

Laparoscopic hysterectomy in carefully selected cases can reduce the risk of ureteric injuries and bleeding and has been found to be safe.

#### Methods

A 39-year-old para 1, with no previous abdominal surgeries had suffered with chronic heavy vaginal bleeding, pain and increasingly symptomatic abdominal mass. Several treatments including Ryeqo and Prostag injections were intolerable due to side effects. Imaging suggested broad ligament fibroids on the right. Laparoscopic hysterectomy and bilateral salpingectomies with conservation of ovaries was the only acceptable option for the patient.

#### Results

Veress umbilical entry was adopted with three accessory 5ml ports. Uncomplicated bilateral salpingectomies were done followed by routine approach to hysterectomy on the left. Due to the large bilobed pseudo broad ligament fibroid on the right, originating from the lower posterior wall of the uterus, an early ureterolysis was performed and debulking of the uterus with myomectomy followed by routine devascularisation of the uterine vessels on both sides. Colpotomy was done using monopolar hook. Uterus and fibroids were retrieved vaginally, and vault closed using continuous barbed sutures. Estimated blood loss was less than 500mls and no ureteric injuries were noted.

#### Conclusions

Pseudo broad ligament fibroids can be safely managed with laparoscopic hysterectomy and care should be taken to avoid ureteric injuries. Indocyanine green dye for highlighting ureteric paths has been found useful and can be considered if available.

<https://player.vimeo.com/video/950539234?autoplay=1>

## ABST-0675 - VP151

### ePoster and Video Presentations

#### Taking off the tilt: Using patient positioning to tackle a large ovarian mass laparoscopically

Ameya Dudhwadkar<sup>1</sup>, Ashley Todd<sup>1</sup>, Chris Hardwick<sup>1</sup>, *Felicity Watson*<sup>1</sup>

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#### Background

Traditionally laparoscopic surgery is reserved for smaller adnexal masses, with laparotomy chosen for masses nearing the umbilicus due to issues with access and mobilisation of a heavy specimen with laparoscopic instruments. Head-down is usually considered essential for laparoscopic gynaecology surgery but may hinder laparoscopic management of large adnexal masses.

#### Methods

The authors report a total laparoscopic hysterectomy/bilateral salpingo-oophorectomy performed for a 17x17cm complex right ovarian mass (Ca125 18) in a postmenopausal woman. RMI of 162 precluded uncontrolled rupture of the mass into the abdomen. Open (Hassan) entry at the umbilicus allowed insufflation to 15mmHg with placement of 3 5mm accessory ports after head-down tilt. This achieved good access for laparoscopic left salpingo-oophorectomy and hysterectomy allowing easier identification of anatomical structures on the right, including the ureter with access medial to laterally. The right infundibulopelvic was skeletonised given its bulk but successfully sealed with blunt-tipped ligasure.

The mass was heavy and challenging to move with laparoscopic instruments and was therefore rolled into the pelvis for decompression by placing the patient head-up. Decompression was achieved with a 5mm balloon port and suction, draining 3l. Gravity aided drainage of fluid stabilising the cyst within reach of the suction. Positioning provided good access to the posterior and superior aspects of the mass for adhesiolysis.

#### Results

Altering patient position intra-operatively assisted decompression and mobilisation, avoiding conversion to laparotomy and improving access for adhesiolysis.

Higher than average blood loss (400ml) occurred due to significant omental adhesions overlying much of the superior and posterior aspects of the mass. Laparoscopy allowed easy identification of planes and haemostasis to be quickly achieved with ligasure.

Use of gravity stabilised the mass during decompression and assisted rotation of the mass to reveal the adhesions.

#### Conclusions

TLH can be performed successfully with a large ovarian mass still in situ - adequate head down tilt was achieved without anaesthetic compromise.

The best patient position may change intraoperatively and is not always head-down. Head-up positions can be used to position an unwieldy specimen in a better location more quickly than with laparoscopic instruments, aids decompression and access for adhesiolysis.

Higher blood losses should be anticipated for larger masses, due to surface area, and bulkier pedicles. Surgeons should have alternatives strategies to secure pedicles, which cannot be sealed with energy devices, as in smaller masses.

Completing the procedure laparoscopically resulted in improved postoperative morbidity and healthcare cost compared with laparotomy.

Taking off the tilt can be useful in laparoscopic gynaecological surgery.

<https://player.vimeo.com/video/952052277?autoplay=1>

**ABST-0712 - VP156**

**ePoster and Video Presentations**

**Robotic myomectomy performed by a senior robotics trainee using the Davinci Robotic Surgical System in a teaching hospital in London, UK**

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**Background**

To demonstrate a robotic myomectomy on a 5 cm posterior intramural fibroid performed by a senior robotics trainee in a teaching hospital in London using the Da Vinci Xi Surgical System.

**Methods**

A 34-year-old patient presented with dysmenorrhoea and menorrhagia. A pelvic MRI performed identified a 5.1 cm x 4.7 cm x 5.1 cm posterior intramural fibroid. Following discussion of management options, the patient opted for a robotic myomectomy.

**Results**

The patient is positioned in Lloyd-Davis. The urinary bladder is drained in a sterile way and a V Care uterine manipulator is placed. An uncomplicated closed entry to the abdomen with subsequent robotic ports placed under direct vision is performed. The procedure is completed with low intrabdominal pressure <8mmHg thereafter. The Da Vinci Xi Surgical System is docked, instruments inserted under vision and checks completed.

Subcapsular infiltration of the fibroid with ultradilute Pitressin achieving good effect. The fibroid is opened using a transverse incision. Monopolar and blunt enucleation of the fibroid is performed without cavity breach. A three-layer closure using deep 2-0 PDS with a baseball serosal suture using 3-0 PDS. Haemostasis is confirmed and estimated blood loss confirmed at 49 ml. Instruments are removed under vision, the abdomen desufflated and the port sites closed using deep dermal interrupted Monocryl 3-0 and Dermabond.

**Conclusions**

The Davinci Robotic Surgical System can be used effectively to train senior robotic trainees as exemplified in this case. Robotic myomectomy leads to less postoperative pain, a shorter hospital stay and faster recovery time.

<https://player.vimeo.com/video/954032727?autoplay=1>

**Robotic secondary cytoreduction for single-site recurrent ovarian cancer: a stepwise approach to splenectomy**

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**Background**

In this video, the authors present a case study of a 53-year-old and a 70-year-old patient presenting with a single-site splenic recurrence of ovarian cancer.

**Methods**

The patient was initially diagnosed with high-grade serous ovarian cancer following a diagnostic laparoscopy. The procedure revealed that the patient was not a candidate for surgical intervention due to the extensive nature of the disease (PIV 10). The patient exhibited a BRCA mutation. The patient underwent standard neoadjuvant chemotherapy (three cycles) followed by primary debulking surgery with hyperthermic intraperitoneal chemotherapy (HIPEC), with no evidence of residual tumour. The patient completed the treatment with adjuvant chemotherapy (three cycles) followed by oral maintenance therapy (olaparib). Six months after initiating maintenance therapy, the patient underwent a CT scan follow-up, which revealed a 24mm lesion in the hilar region of the spleen, without any other suspected lesions. The lesion was confirmed to be located within the spleen parenchyma through the use of 3D reconstruction of the CT scan images for illustrative purposes.

**Results**

The preoperative work-up included a gynaecologic examination, pelvic ultrasound, and cervical cytology. The patient underwent a splenectomy with en bloc resection of the omental remnant using the Da Vinci Xi™ system (Intuitive) at the Policlinico Universitario A. Gemelli. This video provides a comprehensive overview of the procedure, with a focus on the key elements of this oncological approach. This video highlights the advantages and technique of splenic artery closure, as well as methods to avoid injury to the tail of the pancreas, which can cause postoperative pancreatic fistula. No intraoperative complications were observed. The patient was discharged without any postoperative complications. The final pathological findings revealed the presence of a recurrence of ovarian cancer in the splenic tissues. Additionally, a demonstration is provided of a specific pathway of tumor diffusion, accompanied by a presentation of the specimen analysis.

**Conclusions**

High level of expertise is needed for MI-SCS that should be performed in high-volume oncological centres. It is essential to select the appropriate candidates who will benefit from MI-SCS without worsening quality of life. Pre-operative imaging precise description and 3D reconstruction of the recurrence and its relationships with adjacent organs contribute to optimal surgical planning.

<https://player.vimeo.com/video/954044195?autoplay=1>

### Robotic total intracorporeal recto-sigmoid resection in recurrent ovarian cancer: a step-by-step approach

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#### Background

About 70% of women affected by ovarian cancer, experience relapse within 2 years from diagnosis.

Traditionally, the standard treatment of recurrent ovarian cancer (ROC) has been represented by systemic chemotherapy.

Recently, several retrospective studies suggested that secondary cytoreductive surgery could provide better clinical outcomes than chemotherapy alone, in case of complete tumour cytoreduction.

About 50% of patients with ROC have a pelvic component of the disease and 22% of patients present isolated pelvic recurrence, often involving the rectum.

Minimally invasive secondary cytoreductive surgery is a feasible option, associated with favourable perioperative outcomes.

The robotic system facilitates the identification of anatomical structures and makes easier some complex surgical step in a narrow space, and it allows the integrated use of surgical tools such as intra-operative ultrasound and indocyanine green application.

#### Methods

In this video, we present a case of a 57-year-old woman, who experienced a rectal recurrence of ovarian cancer after a platinum free interval of 18 months. We describe step-by-step the surgical procedure of a robotic rectosigmoid resection with totally intracorporeal colorectal anastomosis (TICA).

#### Results

Robotic secondary cytoreduction with complete gross resection was achieved. The patient did not report any intraoperative or post-operative complications. Final histology confirmed recurrent ovarian cancer.

#### Conclusions

Totally robotic recto-sigmoid resection is a feasible option in isolated bowel recurrences. Robot-assisted surgery, thanks to continuous technical evolution, has the potential to have a central role in fight against solid tumour. Integration of multiple pre- and intraoperative technologies allows in performing personalized surgery for each different patient.

<https://player.vimeo.com/video/954408168?autoplay=1>



**Surgical approach to early-stage vulvar squamous cell carcinomas**

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**Background**

To demonstrate radical vulvectomy and bilateral inguinal-femoral lymph node dissection for vulvar cancer. Therefore, this surgical video aims to show the anatomical landmarks of the mentioned surgical procedures.

**Methods**

A step-by-step explanation of the procedure using a surgical video. The patient affected by vulvar cancer is suitable also for bilateral inguinal-femoral lymphadenectomy and sparing the saphenous vein.

**Results**

This is the case of a 47-year-old woman presented with a unifocal ulcer and mass on the right labia. A vulvar biopsy was performed, and pathology revealed vulvar squamous cell carcinoma. Pelvic magnetic resonance imaging also confirmed no suspicious lesion for distant metastasis, and surgical intervention was planned. Radical vulvectomy and bilateral inguinal-femoral lymph node dissection were performed in the Department of Oncology, at Azerbaijan Medical University. The anatomical landmarks of the mentioned procedures were reviewed in this surgical video.

**Conclusions**

The modern approach to vulvar carcinoma implies an individualized approach, with each patient requiring assessment of the most appropriate operation for the primary lesion and the regional lymph nodes.

<https://player.vimeo.com/video/960302560?autoplay=1>

### Minimally invasive approach for caesarean section scar pregnancy and isthmocele

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#### Background

The aim is to demonstrate the technique of laparoscopic resection of scar pregnancy and repair of a large caesarean scar defect (isthmocele). The incidence of caesarean scar pregnancy is approximately 1 in 2000 pregnancies and is increasing in parallel with increasing caesarean birth rates worldwide. It accounts for 6 percent of ectopic pregnancies among patients with a prior caesarean delivery. In the last years, its prevalence has risen due to the increasing number of caesarean sections. An early diagnosis can lead to an early management decreasing the risk of life-threatening complications such as uterine rupture and massive haemorrhage. Many therapeutic options are available, medical or surgical, but the current literature suggests that laparoscopic approach with ectopic pregnancy resection is the best option.

#### Methods

To demonstrate a technique for the laparoscopic surgical management of caesarean section scar ectopic pregnancy and isthmocele using the video.

#### Results

In this video, we describe our technique for laparoscopic management of a caesarean scar ectopic pregnancy. The patient is 36 years old, G5P2A2 who presented with a positive pregnancy test, spotting, and mild cramping. Pelvic ultrasound examination had revealed nothing in the uterus. Beta-hCG levels increased from 8134 to 24300. Due to suspicion for ectopic pregnancy, the patient was detailed evaluated by OB/GYN experts. The patient had undergone two previous uncomplicated caesarean sections at term. She was diagnosed by transvaginal ultrasound with 6 weeks live pregnancy implanted at the level of the caesarean scar. The gestational sac was extending from the c-section scar outward. A decision was made to proceed with surgical treatment in the form of laparoscopic resection of the ectopic pregnancy. The surgery was uneventful, and the patient was discharged home within 24 hours of her procedure. Her serial beta-hCG levels were followed until complete resolution.

#### Conclusions

In the experienced hands, laparoscopic treatment of caesarean section scar pregnancies is a viable and preferred option due to high success rate and low morbidity. The perform of uterine artery ligation and laparoscopic suturing can prevent haemorrhage and allow for the safe removal of the ectopic pregnancy with multilayer repair of the uterine defect. Excise all abnormal tissues to reapproximate normal tissue edges ensures success and decreases the risk of reoccurrences.

<https://player.vimeo.com/video/960339460?autoplay=1>