VIDEO COMMENTARY

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Robotic secondary cytoreduction in recurrent ovarian cancer: a tailored approach for kidney transplant recipients

Silvio Andrea Russo[1], Riccardo Oliva[2], Camilla Certelli[2], Sara Ammar[1], Luca Palmieri[1], Claudio Lodoli[3], Francesco Santullo[3], Angela Santoro[4], Anna Fagotti[2], Giovanni Scambia[2], Valerio Gallotta[2]

[1]Division of Gynaecology and Obstetrics, Catholic University of the Sacred Heart, Rome, Italy
[2]Department of Women's and Children's Health Sciences, Gynecologic Oncology Unit, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy
[3]Surgical Unit of Peritoneum and Retroperitoneum, Fondazione Policlinico Universitario A. Gemelli IRCCS, Rome, Italy
[4]Department of Women's and Children's Health Sciences, Complex Operative Unit General Pathological Anatomy, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy

ABSTRACT

Background: The rate of kidney transplantation has been steadily increasing worldwide, accompanied by significant improvements in post-transplant survival rates. However, transplant recipients have a higher incidence of malignancies compared with the general population, and their oncological management often poses unique challenges. In recent years, major advances in the treatment of ovarian cancer have expanded the therapeutic options available for recurrent disease. Two randomised trials have underscored the role of surgery in platinum-sensitive recurrent ovarian cancer while minimally invasive approaches have demonstrated reduced morbidity without compromising oncologic outcomes in carefully selected patients. For frail and immunosuppressed individuals, the minimally invasive approach may offer substantial advantages- including fewer wound complications, shorter hospitalisation, and earlier resumption of oral intake and immunosuppressive therapy. Despite these potential benefits, evidence regarding the feasibility and safety of minimally invasive secondary cytoreduction in kidney-transplanted patients remains limited.

Objectives: To demonstrate the feasibility and outcomes of robotic surgery in a platinum-sensitive ovarian cancer (OC) recurrence in a frail, kidney-transplant patient.

Participant: A woman in her 50s with a history of kidney transplantation presented with isolated pelvic high-grade serous OC recurrence. Positron emission tomography scan revealed a 15 mm solid lesion with increased uptake infiltrating the rectum.

Intervention: A robot-assisted rectal resection was performed using the Da Vinci Xi Surgical System. The approach included four 8 mm robotic trocars: trans umbilical optical port, right and left iliac fossa, suprapubic region, and one 10 mm laparoscopic port at the left Palmer's point. Colorectal anastomosis was completed using the Ethicon Endo-Surgery 60 mm stapler by a specialised peritoneal and retroperitoneal team.

Conclusions: R0 resection was achieved with no complications or delays in immunosuppressive therapy resumption; final histology confirmed rectal involvement, and adjuvant chemotherapy was promptly initiated. At the two-year follow-up, the patient was disease-free.

What is New? This case supports minimally invasive surgery as a valid approach in selected, frail, immunosuppressed patients with isolated OC recurrence.

Keywords: Feasibility, kidney transplantation, ovarian cancer, robotic-assisted, robotic surgery

Corresponding Author: Silvio Andrea Russo, MD, Department of Women, Child and Public Health Sciences, Gynecologic Oncology Unit, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy
E-mail: silvioandrea.russo01@icatt.it **ORCID ID:** orcid.org/0009-0000-9060-1501
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Video 1. Robotic secondary cytoreduction for platinum-sensitive recurrent ovarian cancer in a kidney-transplant patient. The video demonstrates a minimally invasive rectal resection in a frail, immunosuppressed patient using the Da Vinci Xi Surgical System. This tailored approach allowed for complete cytoreduction (R0) without delaying the resumption of immunosuppressive therapy. The case supports the feasibility of robotic surgery in selected post-transplant oncologic cases.[1-5]

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Transparency: The authors affirm that this manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

Video 1. Robotic secondary cytoreduction in recurrent ovarian cancer: a tailored approach for kidney transplant recipients: https://youtu.be/6SMeR6lZM34