LETTER to the EDITOR

DOI: 10.52054/FVVO.2025.279
Facts Views Vis Obgyn

Letter to the Editor: Iatrogenic breaching of the junctional zone: the unintended path to placenta accreta spectrum?

Jolien Haesen, Kobe Dewilde, Hannes van der Merwe, Thierry Van den Bosch

Department of Obstetrics and Gynecology, University Hospital Leuven, Leuven, Belgium

Dear Editor,

We have read with great interest the paper by Gillet et al.[1] Over the past four decades, hysteroscopy has become a widely used diagnostic and therapeutic tool in gynaecology. We therefore strongly support research including clinical follow-up data after hysteroscopic procedures.

In this study, patients with repeated implantation failure underwent a five-part intervention: 1) gonadotropin-releasing hormone suppression, 2) hysteroscopic sub-endometrial exploration, 3+4) budesonide-loaded hyaluronic acid application and 5) intramuscular platelet-rich plasma, none of which have compelling evidence supporting improved outcome according to the European Society of Human Reproduction and Embryology guidelines.[2]

Patients showed no "major pathology" and a regular junctional zone (JZ) on three-dimensional ultrasound, yet magnetic resonance imaging (MRI)- performed at random cycle timing- showed complete loss of JZ. Both techniques have a similar suboptimal accuracy for minimal adenomyosis. For instance, the transient nature of MRI features during the menstrual cycle and during myometrial contractions is a common pitfall.[3,4] Additionally, patients in the presented cohort had already undergone hysteroscopic procedures prior to inclusion in the study, in which the disruption of the JZ could be secondary to these procedures.

All patients underwent "hysteroscopic sub-endometrial exploration" aiming to increase diagnostic sensitivity. This technique implies focal breaching of the JZ. As previously reported by the authors, adenomyosis often arises from JZ disruption due to myometrial hypercontractility, pregnancy or intrauterine surgery.[5] However, focal adenomyosis is a heterogeneous entity, and the causal link with intra-uterine procedures remains unclear.[6]

Our main concern is that JZ scarring caused by this hysteroscopic procedure may induce focal adenomyosis, leading to mal-placentation and placenta accreta spectrum (PAS) in subsequent pregnancies. In one cohort, 30% developed major obstetrical complications, including placenta previa, severe PAS, of which one necessitated a postpartum hysterectomy. Of the postpartum hysterectomies performed for PAS at the University Hospital Leuven in the last five years, four patients had no history of caesarean section. In these patients, one had a curettage and three underwent hysteroscopies (two for fertility exploration and one for polyp resection).

Taking all this data into account, we believe any iatrogenic trauma of the JZ should be avoided in the

Corresponding Author: Jolien Haesen, Department of Obstetrics and Gynecology, University Hospital Leuven, Leuven, Belgium
E-mail: jolien.haesen@uzleuven.be **ORCID ID:** orcid.org/0000-0002-1381-4033
Received: 04.11.2025 **Accepted:** 08.11.2025 **Epub:** 03.12.2025

Cite this article as: Haesen J, Dewilde K, van der Merwe H, Van den Bosch T. Letter to the Editor: Iatrogenic breaching of the junctional zone: the unintended path to placenta accreta spectrum? Facts Views Vis Obgyn. [Epub Ahead of Print].

absence of any compelling potential clinical benefit. Therefore, although unproven, we consider that the possible harm due to hysteroscopic subendometrial exploration does not allow it to be included in routine clinical practice.

We thank the authors for publishing their results highlighting this potential health issue. We strongly recommend an audit of the obstetrical outcome of consecutive women who have undergone hysteroscopic subendometrial exploration.

Acknowledgements: Not applicable.

Contributors: Concept: J.H., K.D., H.V.D.M., T.V.D.B., Literature Search: K.D., Writing: J.H., K.D., H.V.D.M., T.V.D.B.

Funding: No funding received.

Competing interests: All authors have completed the ICMJE uniform disclosure form at www.icmje.org/disclosure-of-interest/ and declare: no competing interests.

Ethical approval: Not applicable as only a letter to the editor.

Informed consent: Not applicable as only a letter to the editor.

Data sharing: Not applicable as only a letter to the editor, no data used.
Transparency: We affirm that the manuscript is an honest, accurate, and transparent account of the study being reported. As this is only a letter to the editor, no data are used.

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