

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

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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

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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.

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