Pregnancy-related intrauterine adhesion treatment: new insights

Although Asherman syndrome had been described for more than a century and its results on reproductive health of the woman are well known, it was the introduction of hysteroscopy that revolutionized its management, becoming the standard care in intrauterine adhesion (IUA) diagnosis and treatment. However, the efficacy of hysteroscopic treatment in restoring uterine cavity anatomy and, most importantly, the reproductive potential of the patient and the prognostic factors affecting the treatment outcome are not yet fully elucidated.

The study by Hanstede et al. (1), focusing on live birth rates after hysteroscopic treatment of pregnancy-related IUAs, represents a valuable contribution in the field because of the high number of patients included, their systematic classification with the 2 most frequently used systems, the standard treatment protocol by well-known and experienced surgeons, and the high long-term follow-up response rate. The investigators found that younger women with Asherman syndrome as a result of miscarriage and low-grade adhesions have higher probabilities of conception and live birth (1).

Apart from the main results of this interesting study, there are some points that attract our attention. In the presence of different proposals for the categorization of IUAs, it is obvious that their clinical validation is crucial. A significant characteristic of any classification system is its prognostic value in predicting treatment outcome. It seems from the reported data that both the European Society of Gynaecological Endoscopy (ESGE) and American Fertility Society classification systems could predict the treatment outcome in a reliable way.

The investigators commented that the ESGE scoring system is more useful in describing the adhesions, thus being more comprehensive and reproducible. However, it is more difficult to be used (1). Because simplicity is very significant for everyday clinical practice, a re-evaluation of the ESGE grading system, having as a guide its prognostic value, may be useful for future use. It was reported that 81% of mild grade 1 and 2 cases, 75% of moderate grade 2a cases, 61% of higher grade 3 and 4 cases, and 41% of severe grade 5 cases had at least 1 live birth. It seems, therefore, that the degree of endometrial involvement is the key factor in predicting reproductive outcome; a unification of ESGE grades into classes may be possible having as subclasses different anatomical categories.

In the follow-up hysteroscopy, as many as 34.4% of the patients have spontaneous recurrence of IUAs, and this seems to be related to poorer prognosis; spontaneous recurrence of IUAs after an initial successful procedure influenced the chance of a live birth (odds ratio, 0.57; 95% confidence interval, 0.38–0.84) (1). The rate of adhesions' recurrence is similar to that reported by Shi et al. (2) in the control group, indicating that this is the expected adhesion reformation rate with the "classical" hysteroscopic scissors' approach. It seems, therefore, that treatment strategies indenting to prevent adhesion recurrence could be useful in improving the results.

Balloon dilatation therapy for adhesion dissention along the weakest possible plane was proposed as an alternative to the classical hysteroscopic dissection with scissors; the idea behind is to avoid as much as possible destruction of the remaining endometrium basalis keeping the dissection in the best anatomical route (3). In an extension of this idea, the same group of researchers contacted a prospective randomized study examining the effectiveness of postoperative intermittent intrauterine balloon dilatation therapy in adhesion prevention; a follow-up hysteroscopy was performed 8 weeks after the initial intervention (2). They reported a significantly lower adhesion reformation in the balloon than in the control group (20.2% vs. 40.2%, respectively; $P<.05$) and a significant increase in the menstruation flow using the pictorial blood loss assessment chart score (30 vs. 9, respectively; $P<.001$), indicating probably a better regeneration of the functional endometrial layer (2).

Antiadhesive agents in the form of gels were also proposed for IUA prevention after hysteroscopic procedures; their action is based on their ability to keep the opposite sites of the uterine cavity separated for almost 3 days, time crucial for adhesion formation. Their use seems to decrease postoperative adhesion formation (4, 5), although there is still space for evaluation of their effectiveness.

Another interesting point is the time of the second-look hysteroscopy; because adhesion formation is thought to happen during the first postoperative hours, a follow-up hysteroscopy on the second or third postoperative day may be useful (4).

The Hanstede et al. (1) study with its findings represents a valuable contribution to the existing literature on Asherman syndrome management giving the opportunity to new thoughts on this very significant scientific and clinical topic.

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