DIFFERENTIATED HYSTEROSCOPIC SURGICAL MANAGEMENT OF INTRAUTERINE PATHOLOGY FOLLOWING PREGNANCY TERMINATION

ДИФФЕРЕНЦИРОВАННАЯ ХИРУРГИЧЕСКАЯ ТАКТИКА С ПРИМЕНЕНИЕМ ГИСТЕРОСКОПИИ ПРИ ВНУТРИМАТОЧНОЙ ПАТОЛОГИИ У ЖЕНЩИН ПОСЛЕ ПРЕРЫВАНИЯ БЕРЕМЕННОСТИ

Raupova Feruza Rustamovna
fera_8891@mail.ru
https://orcid.org/0009-0000-2858-4747
Obstetrician-Gynecologist, Multidisciplinary Clinic of the Center for the Development of Professional Qualifications of Medical Workers, Tashkent, Uzbekistan

Abstract. This study reviews current evidence regarding differentiated hysteroscopic management of intrauterine pathology following induced abortion and spontaneous pregnancy loss. Particular attention is given to hysteroscopic removal of retained products of conception and surgical treatment of intrauterine adhesions. A systematic review and meta-analysis involving 2,112 women reported a pooled complete resection rate of 91% after a single hysteroscopic procedure, with an overall complication rate of 2%. Comparative evidence indicates that reproductive outcomes following hysteroscopic removal and ultrasound-guided vacuum aspiration may be similar.

Keywords: hysteroscopy, pregnancy termination, retained products of conception, intrauterine adhesions, surgical management, reproductive outcomes.

Аннотация. Проведён анализ современных научных данных, посвящённых дифференцированному подходу к гистероскопическому лечению внутриматочной патологии у женщин после искусственного и самопроизвольного прерывания беременности. Основное внимание уделено гистероскопическому удалению остатков плодного яйца и хирургическому лечению внутриматочных синехий. Согласно систематическому обзору и метаанализу, включавшему 2112 женщин, полное удаление патологической ткани за одно гистероскопическое вмешательство было достигнуто в 91% случаев, тогда как общая частота осложнений составила 2%. Данные сравнительных исследований свидетельствуют о сопоставимости репродуктивных исходов после гистероскопического удаления патологической ткани и вакуум-аспирации под ультразвуковым контролем.

Ключевые слова: гистероскопия, прерывание беременности, остатки плодного яйца, внутриматочные синехии, хирургическая тактика, репродуктивные исходы.

Background. The management of intrauterine pathology following pregnancy termination remains an important issue in contemporary gynecological practice. Retained products of conception and intrauterine adhesions may contribute to abnormal uterine bleeding, menstrual dysfunction, and impaired reproductive health. Conventional uterine evacuation techniques do not provide continuous direct visualization of the endometrial cavity. Hysteroscopic technologies enable targeted removal of intrauterine tissue and direct assessment of the uterine cavity. However, the selection of an appropriate surgical approach requires consideration of lesion characteristics, vascularity, clinical stability, and potential reproductive consequences.

Objective. To evaluate the available evidence on hysteroscopic treatment of intrauterine pathology following pregnancy termination and identify clinical factors relevant to differentiated surgical decision-making.

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Materials and Methods. A focused review of published systematic reviews, meta-analyses, prospective comparative studies, and clinical practice guidelines was performed. The analysis addressed hysteroscopic removal of retained products of conception, ultrasound-guided electric vacuum aspiration, and hysteroscopic adhesiolysis. The principal outcomes included complete removal rates, surgical complications, intrauterine adhesion formation, subsequent pregnancy rates, live birth rates, and time to conception.

Results and Discussion. A systematic review and meta-analysis published in the Journal of Minimally Invasive Gynecology included 20 studies involving 2,112 women who underwent hysteroscopic removal of retained products of conception. The pooled complete removal rate after a single procedure was 91% (95% CI, 83–96%), whereas incomplete removal was reported in 7% of cases. The pooled complication rate was 2%. Postoperative intrauterine adhesions were reported in 12 of 1,478 procedures, corresponding to 0.8%. Additional evidence was provided by a prospective follow-up study published in the American Journal of Obstetrics and Gynecology in 2024. The study included 261 women, of whom 171 underwent hysteroscopic removal and 90 received ultrasound-guided electric vacuum aspiration. Among women with assessable reproductive outcomes, subsequent pregnancy rates were 96.7% and 92.9%, respectively (P=0.428). Live birth rates were 76.3% and 77.1% (P=0.914). The median time to conception was 8.2 weeks after hysteroscopic removal and 6.9 weeks following vacuum aspiration (P=0.262). No statistically significant differences in the evaluated reproductive outcomes were identified between the treatment groups. The available findings indicate that hysteroscopy is an effective surgical option for selected patients with retained products of conception. Nevertheless, its use should not be considered universally superior to alternative treatment methods. Surgical decision-making should incorporate lesion size, vascular characteristics, severity of bleeding, and the patient's clinical condition. In patients with intrauterine adhesions, hysteroscopic adhesiolysis allows direct identification and division of adhesions with the aim of restoring uterine cavity anatomy.

Conclusion. Hysteroscopic techniques provide effective options for the management of selected intrauterine abnormalities following pregnancy termination. Published evidence demonstrates high rates of complete removal of retained products of conception, although clear superiority regarding subsequent reproductive outcomes has not been established. A differentiated surgical approach should be guided by the type and extent of intrauterine pathology, procedural safety, and individual reproductive goals.

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