

The management of caesarean scar pregnancy with or without a combination of methods prior to hysteroscopy: ovarian reserve trends and patient outcomes

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Abstract

Study Objective: This study compared the efficacy and safety of a combination of uterine artery embolization or methotrexate before hysteroscopy in the treatment of cesarean scar pregnancy. **Methods:** We divided 276 cesarean scar pregnancy patients into three groups. Group A underwent direct hysteroscopy; Group B received uterine artery embolization plus hysteroscopy; Group C received the systemic administration of methotrexate prior to hysteroscopy. **Results:** The patients in Group A lost significantly more blood than those in Groups B ($P < 0.05$). There were no significant differences between the three groups with regards to massive hemorrhage and transfusion ($P > 0.05$). None of the patients required hysterectomy. Group A was also associated with a significantly shorter period of hospitalization, reduced medical costs, and fewer adverse events than either Group B or C ($P < 0.05$). Moreover, among women of advanced age (≥ 35 y), the levels of serum anti-Mullerian hormone in Group B were significantly lower than those of the baseline group ($P < 0.05$), which were significantly lower than those in Group A after surgery (4.22 ± 2.35 vs 2.78 ± 1.89 ng/ml, $P < 0.05$). **Conclusion:** Direct hysteroscopy is a reliable treatment option for most early type I cesarean scar pregnancy patients with a gestational sac. A combination of methotrexate and uterine artery embolization before hysteroscopy in these patients has limited remedial effects. uterine artery embolization may reduce ovarian reserve in patients aged ≥ 35 y.

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Jinhua Municipal Central Hospital Institutional Review Board

(2019) Ethics approval No. (198)

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Project name	The management of caesarean scar pregnancy with or without a combination of methods prior to hysteroscopy: ovarian reserve trends and patient outcomes		
Research genres	<input checked="" type="checkbox"/> Research projects <input type="checkbox"/> new technologies and project <input type="checkbox"/> Other		
Research cycle	72 months	Main researchers	Mingjun Shao, Fei Tang, Limei Ji, Min Hu, Keke Zhang, Jiangfeng Pan
Application Department	Gynaecology	Contacts	Jiangfeng Pan
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Sources of scientific research funds	<input type="checkbox"/> Government <input type="checkbox"/> Foundation <input type="checkbox"/> Company <input type="checkbox"/> international institutions <input checked="" type="checkbox"/> Other		
Type of examination	<input checked="" type="checkbox"/> New application <input type="checkbox"/> Revised project <input type="checkbox"/> Subject of continuing examination		
Submit materials	Research proposal, Informed consent		
<p>Context as follows:</p> <p>It is generally accepted that the incidence of CSP has increased substantially in China over recent years, coincident with the creation of the two-child policy and the development of better ultrasound diagnosis. The mechanisms underlying CSP remain unclear and no universal guidelines have been recommended for the treatment of this disease. Dilation and curettage (D&C), Operative hysteroscopy, the systemic administration of methotrexate (MTX) or uterine artery embolization (UAE) are common treatment. In order to identify the best therapeutic option for CSP patients, we retrospectively analyzed the clinical data of 276 CSP patients that received treatment in our institution. Our aim was to compare the clinical outcomes, and ovarian reserve, of patients receiving three therapeutic strategies: UAE combined with hysteroscopy; systemic MTX combined with hysteroscopy, and hysteroscopy alone.</p> <p>Opinion of ethics committee:</p> <p>After deliberation by the ethics committee of our hospital, the implementation plan of the study fully considered safety and fairness. The content of the study is based on the principle of patients' voluntary and informed consent, in line with the requirements of relevant ethical laws and regulations, and agreed to carry out the project research.</p> <p style="text-align: right;">Jinhua Municipal Central Hospital Seal of Institutional Review Board</p>			

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