

Conservative methotrexate treatment of a scar pregnancy case: adding evidence to the evidence

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To the Editor,

We would like to report the following case aiming to add more evidence in supporting the use of local and systemic methotrexate for the treatment of Cesarean scar pregnancy (CSP).

The CSP has become more common in the last decades due to the rising of Cesarean sections (1,2). The CSP can have also serious complications. The best management of CSP is not well established, and various treatment modalities are reported. The role of conservative management of CSP has been previously disclosed with conflicting results (3).

G.V., caucasian 31-year-old female, was assessed at 8 + 0 weeks of amenorrhea because of brown vaginal discharges. Discharges began a few hours before. No pain was complained. Patients had had two previous Cesarean sections, both at 38 weeks of gestation. The last Cesarean was performed six years before. Two miscarriages were also reported.

An ultrasound scan was performed, showing uterus normal in size and with no gestational sac inside. The gestational sac was found within the pouch of the previous Cesarean cut, between the cervix and the uterine body. It appeared as a hypo-echoic ring of 0.51 x 1.0 cm. Pericentric vascularization was seen, as well as regular morphology and secondary yolk sac. No embryonic 'echoes' were detected in the gestational sac. Findings were consistent as for 5 weeks ultrasound-based gestational-age. Moreover, the free margin from perimetrium was only 2 mm. Adnexa were regular bilaterally, with no free fluid in the pelvis.

The patient was dismissed with the diagnosis of "intra-scar pregnancy". A conservative treatment was planned with combined systemic and local (i.e. sonographic trans-abdominal intra-sac injection) methotrexate (MTX). The doses of local and systemic MTX were decided in agreement with what reported by Timor-Tristch et al (4).

Prior to MTX therapy, complete blood tests were performed. The human chorionic gonadotropin (hCG) level was 25,956 mIU/ml. Twenty-five mg of MTX was administered intra sac and additional 25 mg was administered inside the placental bed under trans-abdominal ultrasonographic check. At the same time, 50 mg of MTX were given intramuscularly. Patient felt discomfort when the amniocentesis needle was passed for injection.

Four days later, the hCG level was 40,765 mIU/ml. There was ultrasound evidence of gestational sac and yolk sac. A second cycle of MTX therapy like the one reported above was offered to the patient, but patient did not accept. She agreed only to receive the MTX intramuscularly. Therefore, 95 mg of MTX was given intramuscularly. Seven days from the first cycle of MTX, hCG level was 38,092 mIU/ml while it dropped to 3,554 mIU/ml after 14 days. The gestational sac was still present at echography at that time, while yolk sac disappeared. HCG levels were checked every week until negative values. Renal, blood and hepatic function remained normal throughout the treatment. No side effects were recorded.

There are some studies showing that systemic MTX therapy is a safe and effective strategy for

the treatment of CSP, with favorable subsequent reproductive results and a low conversion rate to surgical management (2). In a 2015 systematic review (5), Authors reported a 73.9% to 88.5% success rate of a first line local injection of MTX. However, the review encompasses only 95 women. Therefore, new cases are needed to increase the evidence of such a kind of management. The current one supports the local injection of MTX for conservative treatment of CSP.

Conflict of interest: Each author declares that he or she has no commercial associations (e.g. consultancies, stock ownership, equity interest, patent/licensing arrangement etc.) that might pose a conflict of interest in connection with the submitted article.

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