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Uncomplicated cervical pregnancy treated with new combined regimen of RU-486 and methotrexate- a solution to improve results for conservative management

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Summary

The cervical pregnancy is a rare type of ectopic pregnancy, with less than a 1% incidence, but has a high complication rate. *Case Report:* The authors present a case of a patient with a seven-week cervical pregnancy with fetal heart beat present. They used a conservative management with methotrexate 1 mg/kg body weight associated to RU-486 200 mg, with methotrexate dose repeated on day 5, which resulted in no radical intervention needed. The case evolution had a two-week normalization of ultrasound and beta hCG aspect. *Conclusion:* This regimen could be, if confirmed, a solution to increase the efficiency of conservative management in cervical pregnancy.

Key words: Methotrexate; RU-486; Cervical pregnancy; Conservative management.

Introduction

Cervical pregnancy (CP) is a rare location of the ectopic pregnancies, (representing less than 1%) [1], increasing in recent times by using assisted reproductive techniques, better access to diagnostic methods, and in some way (ectopic uterine scar pregnancy) by the increased number of cesarean section delivery.

The difficult management of CP is related to hemorrhagic accidents and the limited possibilities of conservative management. Using methotrexate could help if proper monitoring is provided. The authors present a case in which this approach resulted in a successful outcome, and RU-486 was also used as adjuvant to methotrexate.

Case Report

The authors present a case of a 34-year-old patient, G0P0, which was admitted to the authors' attention with the diagnosis of CP. The ultrasound measurements showed a gestational sac of 21.4 mm (equivalent to six weeks five days), and an embryo with fetal heart beat present. The beta hCG values was 16,944 IU/L. The woman received methotrexate 1 mg/kg body weight associated with RU-486 200 mg, and a close ultrasound and biological monitoring was recommended. The patient was followed up by three-day ultrasound evaluation and beta hCG levels. The patient gave her consent and approved to have her clinical data included in this article.

The evolution was as follows: Day 1: beta hCG 16,944 IU/L, ultrasound image as shown in Figure 1. One dose of methotrexate was given, associated to 200 mg of RU-486. Day 3: beta hCG at 11,038 IU/L, gestational sac diminished, and the embryo with no heart beat. Day 5: beta hCG was 9,300 IU/L and the ultrasound image showed no significant change. A second dose of methotrexate was administered at 1 mg/kg body weight. Day 12: beta hCG was 900 IU/L, and the ultrasound showed a destructured gestational sac of 19.2 mm

The patient was discharged. One month follow up visit of the patient showed normal cervical aspect and periovulatory uterine endometrium

Discussion

CP, a rare location of an ectopic pregnancy, is a high risk gynecological situation and has several management options: hysterectomy, uterine artery embolization to stop the

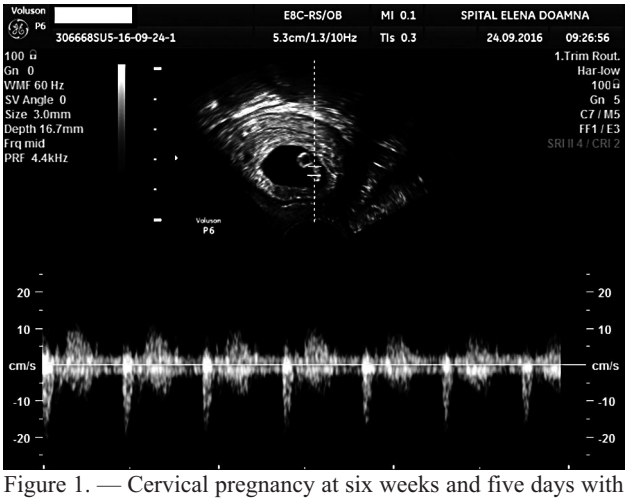

Figure 1. — Cervical pregnancy at six weeks and five days with fetal heart beat present.

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evolution [2], and sometimes associated to hysteroscopy extraction [3], curettage with balloon tamponade [4, 5], and local injection of diluted vasopressin [6].

This is one of the few cases, to the present authors' knowledge, where a combined RU-486 and methotrexate protocol was proposed. There is only an 11-case series presented by Shretstha *et al.* [7] but only two of them had no surgical gesture associated. The regimen with methotrexate is mentioned several times in literature, either by general administration or local intrasaccular dose, which some authors associate with potassium chloride [8]. Using methotrexate is not always successful, and can produce also some side effects. In this article, the authors propose a double dose methotrexate (the second only based on biological markers dynamics) combined with RU-486, which was better tolerated and had a favorable outcome. The close ultrasound monitoring was also important in this case.

A discussion could be made if the efficiency of the methotrexate was influenced by RU-486, and why a second dose was necessary. The authors considered that unlike the intrauterine pregnancy termination, where RU-486 is often enough to stop the pregnancy and to favor the expulsion by prostaglandins, in cervical cases, methotrexate should also be checked by trophoblastic appearance and beta hCG levels. Therefore, as beta hCG did not decrease at a rapid enough rate, the authors considered a second dose of methotrexate useful to speed up the process, with no side effects shown by the patient.

In conclusion, due to the rarity of this pathology, it is difficult to impose one approach and the gynecologist should have as many methods as possible at hand. If initial conservative management is justified both by the patient's condition and the desire for a future pregnancy, this approach could increase the success rate, if confirmed by larger series.

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