

Successful medical treatment of cesarean scar pregnancy: a case report

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Summary

Objective: Cesarean scar pregnancy is implantation of the pregnancy within the fibrous tissue of the cesarean scar which is completely surrounded by myometrium. **Method and Result:** A 32-year-old woman, gravida 2, para 1 presented at our emergency department with mild lower abdominal pain and minimal vaginal bleeding. She was diagnosed with cesarean scar pregnancy. Conservative treatment with methotrexate 50 mg/m² was administered IM on days 0 and 8. Her β HCG value was zero at the 14th week after beginning of the treatment. **Conclusion:** Repeated methotrexate administration in the management of cesarean scar pregnancy should be attempted in informed patients who especially desire fertility and can be closely followed up.

Key words: Pregnancy cesarean scar pregnancy; Conservative treatment.

Introduction

Cesarean scar pregnancy (CSP) is implantation of the pregnancy within the fibrous tissue of the cesarean scar which is completely surrounded by myometrium. It is the rarest form of ectopic pregnancy but a life-threatening condition because of the very high risk of uterine rupture and excessive hemorrhage related to it [1].

We report a case of cesarean scar pregnancy treated successfully with only systemic methotrexate administration.

Case Report

A 32-year-old woman, gravida 2, para 1, presented at our emergency department with mild lower abdominal pain and minimal vaginal bleeding. All physical examination findings were normal. Laboratory data revealed a quantitative serum beta human chorionic gonadotropin (β HCG) level of 18914 IU/l. Transvaginal ultrasound showed a 6.5 week gestational sac which was in the previous cesarean scar tissue between the collum and uterine corpus in the anterior uterine wall and expanding into the myometrium towards the urinary bladder. Fetal cardiac activity was detected (Figure 1).

After we informed the patient, conservative treatment with methotrexate was decided on because of the patient's desire to preserve fertility. Methotrexate 50 mg/m² (50 mg x 1.68 = 84 mg) was administered intramuscularly on days 0 and 8. Her β HCG value was zero at the 14th week. Three months after beginning the treatment the gestational sac was seen as a hyper-echoic area.

Discussion

Recently there has appeared to be an increase in the incidence of cesarean scar pregnancy [1]. This may result from the high cesarean birth rate worldwide and the more



Figure 1. — Transvaginal ultrasonographic view of cesarean scar pregnancy.

widespread use of transvaginal ultrasound that allows earlier detection of such pregnancies. Seow *et al.* reported that the incidence of cesarean scar pregnancy is 1: 2,216 and the rate is 6.1% in women with an ectopic pregnancy and at least one previous cesarean section [2].

To validate diagnosis of CSP, we used four sonographic and color Doppler examination criteria that Jurkovic *et al.* proposed [3].

Although various models of surgical or medical approaches, or a combination of both methods for the management of CSP have been reported in the literature, there is no standard treatment protocol because of its rarity [1].

Treatment of CSP with methotrexate is a well recognized alternative therapy that can preserve fertility. Analysis of published case reports suggests that the success rate of methotrexate, when used as an initial treatment option, is nearly 80% [3].

However, there is no a consensus about the efficacy and reliability of this treatment, route of administration or dose of methotrexate in the literature [4].

Although there has been progressive decrease of weekly performed β HCG values and reliability of repeated systemic methotrexate therapy in the management of tubal and cervical ectopic pregnancies, we insisted on following-up our patient despite the minimal vaginal bleeding which did not affect her hemodynamic stability after administration of two doses of methotrexate (50 mg/m² on days 0 and 8).

Use of repeated dose administration of methotrexate for CSP treatment has not been reported before. To our knowledge, our patient is the first such presented case.

In summary, repeated methotrexate administration in CSP management should be attempted in patients who especially desire fertility and understand the benefits and risks.

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