Cesarean Scar Ectopic Pregnancy: Case Series

Sezaryen Skar Ektopik Gebelik: Olgu Serisi

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ABSTRACT

Cesarean scar pregnancy (CSP) is the implantation of a pregnancy at the site of a previous cesarean scar a rare form of ectopic pregnancy. Although rarity is becoming increasingly common in parallel with rising numbers of cesarean section deliveries.

We present, in this paper, four cases of CSP diagnosed within the last 6-months period.Their clinical characteristics on admission and management are discussed, followed by a brief review of the published literature summarizing both diagnostic methods and management recommendations.

Keywords: Ectopic pregnancy, cesarean, methotrexate.

ÖZ

Ektopik gebeliğin nadir bir çeşidi olan sezaryen skar gebeliği (SSG), gebeliğin önceki sezaryen kesi alanına yerleşmesidir. Her ne kadar nadir görülse de insidansı, artmakta olan sezaryen doğum oranlarına paralel olarak yükselmektedir.

Bu yazıda kliniğimizde altı aylık süreç içinde tanısı konulmuş 4 SSG vakasını sunuyoruz. Vakaların başvurudaki klinik özellikleri ve yönetimi tartışılmış, daha sonra literatür kısaca gözden geçirilmiş, ve tanı ve yönetimdeki öneriler kısaca özetlenmiştir.

Anahtar Kelimeler: Ektopik gebelik, sezaryen, metotreksat.

Introduction

The implantation of a pregnancy within the previous cesarean scar is one of the rare ectopic pregnancy locations. Cesarean scar ectopic pregnancy (CSP) is becoming increasingly common around the world. It is a condition in which the embryo implants within the myometrium at the site of a previous cesarean hysterotomy, and it can occur in women with only one prior cesarean delivery (1).

We present four cases of CSP diagnosed within a 6-month period. Their initial presentations and management are discussed, followed by a review of the published literature summarizing both diagnostic and management recommendations.

Case Reports

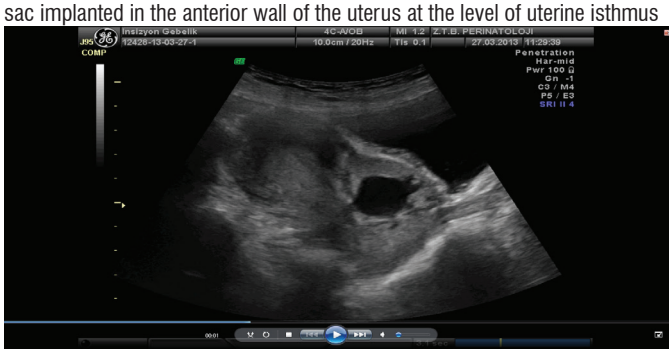
Case 1:

A 25-year-old woman gravida 3 para 1 with a previous history of lower segment cesarean and an elective termination of a pregnancy at 8 weeks with dilatation and curettage was referred to our unit at 7 weeks of gestation for a suspected ectopic pregnancy. On examination, there was no vaginal bleeding, the cervix was closed, and the uterus was not enlarged. An ultrasound scan imaging revealed that the uterine cavity and cervical canal were empty, the gestational sac implanted in the anterior wall of the uterus at the level of uterine isthmus (Figure 1). The fetal CRL was compatible with 8 weeks and fetal cardiac activity was detected. The myometrium was so thin (1,5 mm) between the bladder and the gestational sac. A diagnosis of cesarean scar ectopic pregnancy was made.

The patient didn't accept medical treatment. Wedge resection and repair of the implantation site were made via laparotomy. A mass was palpable under the uterovesical peritoneal reflection, and the peritoneum was opened at this point.

No complications occurred during surgery. Blood loss was minimal and blood transfusion was not required during the operation. She was discharged with out any problem two days after the operation.

Figure 1: The transvaginal ultrasound scan imaging revealed that gestational sac implanted in the anterior wall of the uterus at the level of uterine isthmus



Case 2:

A 35 year-old woman, gravida 2 para 1 was admitted to our clinic at 7 weeks' gestation regarding routin control. The patient had no symptoms. The obstetric

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history included one low-transverse cesarean section at term. We performed ultrasound scan imaging and we saw that the uterine cavity and cervical canal were empty, the gestational sac implanted in the anterior wall of the uterus at the level of uterine isthmus. The fetal CRL was 3,3 mm with fetal cardiac activity. Serum HCG was 11,200 IU/L. After extensive counseling, the pregnancy was terminated by ultrasound-guided transcervical KCl injection. After this, transabdominal ultrasound-guided intra-amniotic injection of 75 mg methotrexate was performed with 20-G needle under local anaesthetic. USG scan revealed that no CSP mass at 8 weeks after methotrexate administration.

Case 3:

A 44 year-old woman gravida 2 para 1 with two previous lower segment cesarean deliveries was admitted to our clinic at 7weeks' gestation for a suspected ectopic pregnancy. The diagnosis was confirmed by transvaginal sonographic examinations showing a well-formed gestational sac with a yolk sac, but no viable embryo, in the myometrium of the lower uterine segment.

Under intravenous sedation, an intra-amniotic injection of 50 mg methotrexate was performed with transvaginal ultrasound guidance. 5 days later, the patient's serum HCG value had risen and the same treatment was repeated with 75 mg methotrexate by transvaginally. One week later she discharged and the patient did not suffer side effects. A follow-up ultrasound showed resolution of the gestational sac.

Case 4:

A 31 year-old woman gravida 5, para 2, dilatation and curettage (D&C) 2 with two previous cesarean deliveries was admitted to our clinic at 8 weeks' gestation with diagnosis of CSP. Transvaginal ultrasound revealed a non-viable singleton gestation with compatible 6 weeks, that appeared fixed within the myometrium anterior to the cervix and adjacent to the bladder.

She received 75 mg methotrexate im on day 1. Serum HCG levels increased to 12,000 mIU/mL on day 4 and remained elevated at 13,085 mIU/mL on day 7. A second dose of 75 mg methotrexate im was administered for a diagnosis of persistent ectopic pregnancy.

Two days later, she reported passage of blood and some tissue. A subsequent D&C was made under general anesthesia with no complication.

She was discharged home in a stable condition on postoperative day 3.

Discussion:

CSP is defined as an ectopic pregnancy embedded in the myometrium of a previous cesarean scar (1). It is a potentially life-threatening condition that, if not detected early and managed aggressively, can result in uterine rupture, hemorrhage and finally maternal death. With increasing incidence of cesarean section worldwide, more cases are diagnosed (2).

Early diagnosis and appropriate treatment is crucially important for management of CSP to prevent serious complications (3).

The exact cause of CSP is still unclear. Although the relationship between cesarean scar pregnancy and the number of previous cesarean deliveries is unclear, rising cesarean section rates worldwide will further increase overall incidence (2-4).

Ultrasonography is the most important diagnostic tool permits earlier and accurate diagnosis of CSP, allowing successful preservation of the uterus without causing maternal complications. To reduce the risk of misdiagnosis, color Doppler imaging may be combined with sonogram (2,3).

The optimal treatment modality remains uncertain (1,3,5). The main objectives in the clinical management of CSP should be the prevention of massive blood loss and the conservation of the uterus to maintain further fertility, women's health and quality of life. Current data do not support expectant management. The nonsurgical strategy is the most appropriate option when the patient is pain free, haemodynamically stable with unruptured CSP and myometrial thickness less than 2 mm between the CSP and the bladder (2,4).

Direct local injection of methotrexate into the amniotic cavity of a CSP using either transabdominal or transvaginal ultrasound-guided injection showed good outcomes (4-8). That was reported uterine artery embolization combined with suction curettage is an effective and safe conservative treatment for cesarean scar pregnancy (9).

The surgical approach is the first option in case of life-threatening complications, but the introduction of minimally invasive approaches upgraded surgery to the first-line strategy (10,11). Laparotomy with wedge excision of CSP is mandatory when uterine rupture is confirmed or strongly suspected (11).

In summary, CSP is a very unusual and possibly life-threatening complication of pregnancy. After early diagnosis, single or combined medical and surgical treatment options should be provided to avoid uterine rupture and haemorrhage, so as to preserve the uterus and thus the fertility.

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