

## Diagnosis, Management and Prognosis of Cesarean Scar Pregnancy; Case Report

Sezaryen Skar Gebeliğinde Tanı, Yönetim ve Prognoz; Vaka Sunumu

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### ABSTRACT

**Introduction:** Increasing rate of cesarean delivery causes increasing rate in the complications of this procedure. One of the complications of cesarean section is cesarean scar pregnancy (CSP), which is a life threatening condition if not diagnosed early.

**Case:** 34 year old multiparous women with CSP with favorable outcome by surgical excision of the gestational sac was presented.

**Conclusion:** CSP may be a life threatening condition and management by fertility preserving procedures is feasible with the early diagnosis.

**Keywords:** Cesarean section, scar, ectopic pregnancy

### ÖZET

**Giriş:** Artan sezaryen oranlarıyla birlikte sezaryene bağlı gelişen komplikasyonlarda da artış olmaktadır. Sezaryen komplikasyonlarından biri olan sezaryen skar gebeliği de erken tanı konulmadığında ölümlü sonuçlanabilmektedir.

**Olgu:** 34 yaşında sezaryen skar gebeliği tanısı koyulan bir hastada, gestasyonel kesenin eksizye edilerek tedavi edildiği bir olguyu sunmak istiyoruz.

**Sonuç:** Sezaryen skar gebeliği tanı konulmadığında yüksek mortalite oranına sahiptir. Erken tanı ile fertilitate koruyucu girişimler yapılarak başarıyla tedavi edilebilmektedir.

**Anahtar Kelimeler:** Sezaryen, skar, ektopik gebelik

### INTRODUCTION

Cesarean scar pregnancy (CSP) which is the rarest form of ectopic pregnancy, was first described in 1978 (1). CSP is defined as implantation of gestational sac within a fibrous tissue of previous cesarean scar in utero. Cervico-isthmic pregnancy, the course of spontaneous miscarriage, should be considered in differential diagnosis (1). The trends of beta-hCG increment may be similar to that seen in a viable intrauterine pregnancy. Close monitoring is warranted if there is an index of clinical suspicion for CSP (2).

### CASE

34-year-old multiparous woman admitted to outpatient care with a 15-day delay in period. Her medical history revealed an intrauterine fetal loss, which was thereafter delivered transvaginally, and one cesarean delivery with a healthy newborn. Physical examination was unremarkable. However, transvaginal ultrasound showed an empty uterine cavity and a cystic mass with irregular borders and a diameter of 3.5 cm at the site of previous cesarean scar. Rich vascular pattern was noted on the Doppler ultrasound along the scar tissue surrounding the cystic mass (Figure 1a).

Beta-hCG was measured as 27.177 IU/L. These findings raised the clinical suspicion for CSP. The patient was fully informed about the management and the risks of CSP, and she decided to terminate the pregnancy. Initially, transvaginal evacuation of the uterine cavity was attempted. The procedure was carried out under general anesthesia in the operating theater in order to convert to laparotomy, if necessary. Likewise, the procedure was complicated with excessive bleeding, which was refractory to local manipulations. Laparotomy through Pfannenstiel incision was done. After the dissection of somewhat obliterated plane between the bladder and the uterus, a cystic mass settled at the anterior wall of the uterus was found. The cystic mass was excised, and the uterine defect was repaired (Figure 1b).

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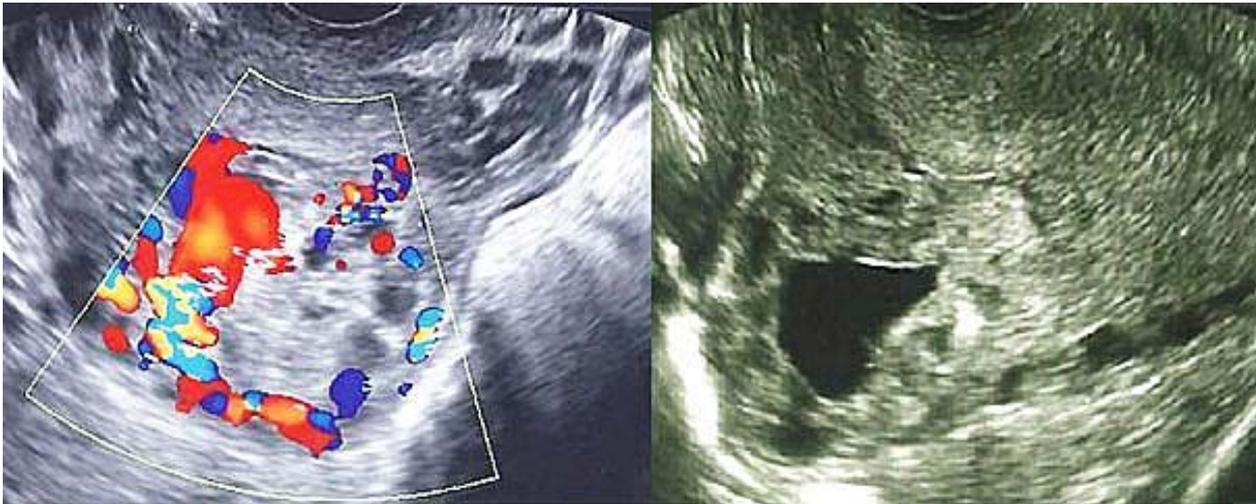


Figure 1a. Sonography and Doppler of gestational sac in the previous cesarean scar.

The postoperative period was uneventful. At the 30th postoperative day, she admitted with lower abdominal pain and vaginal bleeding in the form of spotting. Transvaginal ultrasound demonstrated a uterine out-let obstruction and subsequent hematometra (Figure 2a).

Methylergonovine and analgesic tablets were prescribed. Transvaginal ultrasound done after 3 days revealed no intracavitary pathology (Figure 2b).

## DISCUSSION

The prevalence of CSP is estimated to be 1 in 2216 pregnancies (3). The increasing rate of CSP may be attributed to both increasing rate of cesarean section and wide use of high-resolution transvaginal ultrasound through early first trimester. The predisposing factors for CSP are; incision performed on a non developed lower segment of the uterus for medical conditions and multiple cesarean sections increasing scar surface (4). Latter was possible cause for our

patient. CSP should be suspected as the uterine cavity seems to be empty and sac is located at the niche of scar at sonographic examination with a positive pregnancy test. Also myometrial layer between gestational sac and the bladder could be thick (1-3 mm) (5).

In a hemodynamically stable patient, three management options may be considered; expectant management, medical or surgical intervention (6). Expectant management is not widely adopted by physicians due to risks of massive hemorrhage during follow up. Sinha et al recently published a study claiming that placental insertion abnormalities like placenta accreta, percreta is increased in patients followed with scar pregnancy (8).

Although multiple doses of methotrexate treatment were given followed by additional surgical intervention like uterine artery embolisation, evacuation, excision of the sac through laparotomy or laparoscopy and also hysterectomy may be necessary due to uncontrolled

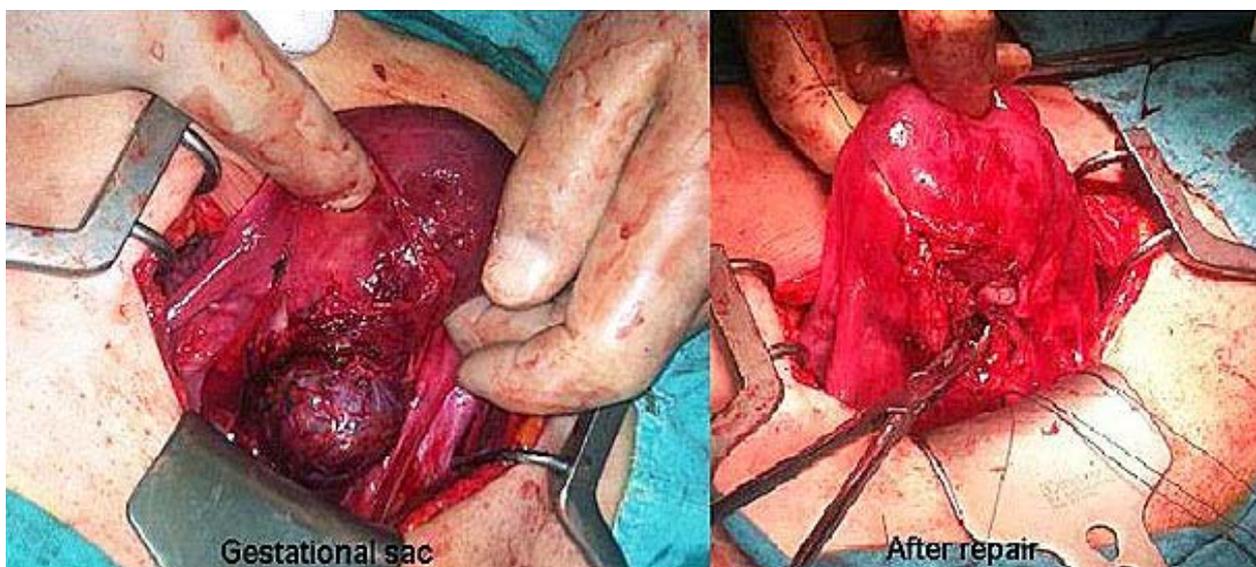


Figure 1b. View at the operation, before and after repair.



Figure 2a. Hematocolpos at the 30th day of surgery.



Figure 2b. Sonography at the 33rd day of surgery.

hemorrhage (6, 7). Second choice is primary surgical treatment. Evacuation therapy is a feasible, but not universally applicable treatment modality of CSP (5). Our patient had pregnancy less than 7 weeks gestation, she preferred evacuation therapy within an open consult given to her about the risks of the procedure.

Seow et al. reported that one patient, primarily treated with evacuation in her previous scar pregnancy, died at 38 weeks' gestation in her subsequent pregnancy because of uterine rupture (3). Even though invasive procedures are known to be avoided, surgery allows the repair of the scar defect and prevents CSP recurrence (9).

We could have a chance to repair the defect of previous cesarean scar after excising the gestational sac. Early surgical intervention prevents being late for fertility preserving procedures otherwise hysterectomy may be performed to control the life threatening hemorrhage. Our case had one child alive so fertility was her main concern.

In conclusion, CSP must be considered as differential diagnosis when pregnancy test is positive with an empty uterus and suspected gestational sac is present at the site of previous cesarean scar. CSP is life threatening condition if not diagnosed early. Early diagnosis also permits an approach for fertility preserving modalities.

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