

A CASE REPORT ON CAESAREAN SCAR PREGNANCY

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ABSTRACT

Pregnancy implantation within the scar of a previous caesarean delivery is one of the rarest locations for an ectopic pregnancy. Early diagnosis of this condition with the use of ultrasound imaging allows for preserving the uterus and subsequent fertility. However, a delay in either diagnosis or treatment can lead to uterine rupture, hysterectomy and significant maternal morbidity. This study presents the case of caesarean scar ectopic pregnancy where the 30 year old G3P2L2 with previous 2 caesarean sections presented with vaginal bleeding and discharge. With transvaginal ultrasound and MRI of abdomen and pelvis diagnosis of caesarean scar ectopic pregnancy was made. Here, we highlight the importance of early diagnosis and treatment of caesarean scar ectopic pregnancies.

KEYWORDS : caesarean scar ectopic, ectopic pregnancy, caesarean section, early diagnosis**INTRODUCTION:**

A caesarean scar pregnancy (CSP), which is considered a type of ectopic pregnancy, occurs when the embryo is implanted in the myometrium at the site of a previous caesarean section (CS) scar. The incidence of CSP is estimated to be around 1 in 2000 pregnancies. The first case was described in 1978 by Larsen and Solomon and its incidence is increasing due to the rising rates of caesarean section and the higher accuracy of ultrasonography for diagnosis. It is important to be able to diagnose the condition as early as possible in order to prevent catastrophic consequences. The risk for a caesarean scar ectopic does not necessarily increase with the number of caesarean deliveries. Disruption of the endometrium and myometrium after caesarean delivery predisposes to improper implantation at the site of the prior hysterotomy. Without normal surrounding myometrium, untreated caesarean scar ectopic pregnancies can result in uterine rupture with severe maternal haemorrhage and death.

Case Report:

A 30 year old G3P2L2 with 10 weeks gestational age came to our hospital with complaints of vaginal bleeding and discharge. Her pregnancy was confirmed by an obstetrical ultrasound performed 2 weeks prior to her presentation in our department and suggested an intrauterine pregnancy at 7 weeks and 5 days with a gestational sac visualized in the lower uterine segment. Her past obstetrical history included 2 uncomplicated caesarean sections 4 and 1 year earlier for CPD. Her menstrual cycles are regular and there is no other significant medical history.

Examination:

At admission her vitals were stable, per abdomen examination was normal, on speculum examination moderate clear-white discharge in the vaginal vault without blood and a closed cervix. On bimanual examination the size of the uterus was consistent with a 10 week pregnancy.

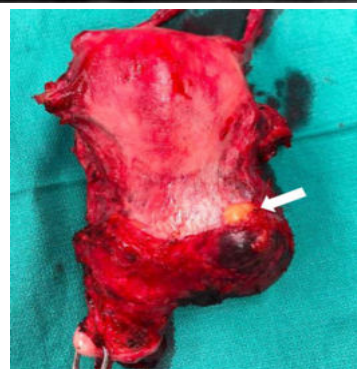
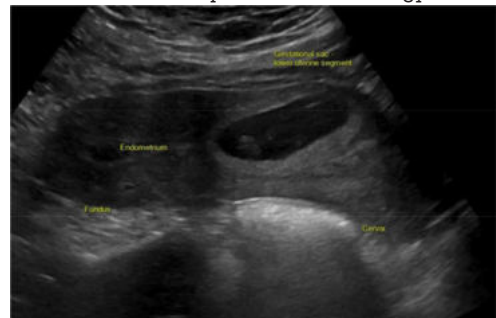
Investigations:

Her haematocrit and haemoglobin were normal. Transvaginal ultrasound demonstrated a gestational sac (dated at 10 weeks and 4 days) located in an anterior position toward the anterior lower uterine segment at the level of prior caesarean scar with little visible myometrium. A fetal pole was noted with the presence of fetal cardiac motion. The gestational sac was found to communicate with the endometrial cavity, while being

located in the lower uterine segment of uterus, and was without involvement of the cervix. Given concern for caesarean scar ectopic pregnancy MRI was done. MRI of the abdomen and pelvis without contrast revealed a gestational sac located in the anterior aspect of the lower uterine segment superior to the internal cervical os at the site of prior caesarean scar. Disruption of the myometrium was suspected between the gestational sac and bladder, with only intact uterine serosa suspected, most consistent with implantation into the prior caesarean scar.

Surgery:

After discussion with the patient regarding her imaging findings, potential complications of continuation of caesarean scar pregnancy, and reproductive goals, the patient stated that she desired permanent sterilization. She underwent an uncomplicated total hysterectomy with removal of the caesarean scar pregnancy, bilateral salpingectomy. She was discharged postoperative day 5 and scheduled for close follow-up with obstetrics and gynaecology.



DISCUSSION:

The implantation of the embryo in the scar of a previous caesarean section is the rarest form of ectopic pregnancies. Although the incidence of caesarean scar ectopic pregnancy is uncommon, its incidence is indeed increasing given deleterious effects of a CSP on a patient, such as haemorrhage secondary to placental invasion and vascularity and rupture at the site of implantation, this possibility should always be considered in women who had a previous C-section, especially if the implantation of the embryo has occurred in the lower uterine segment. In most cases implantation occurs at the site of a defect in the scar. Deficient uterine scars are a frequent finding in women with a history of previous CS and other traumas such as curettage, myomectomy, metroplasty, hysteroscopy.

Although there are no specific diagnostic criteria for caesarean scar ectopic pregnancies, Thus, suggested criteria for a caesarean scar ectopic pregnancy include: (a) gestational sac embedded eccentrically in the lower uterine segment, (b) implantation in the location of a prior caesarean delivery scar, (c) empty uterine cavity and cervical canal, (d) attenuated myometrium over the scar, and (e) extensive Doppler vascular flow in the area of the caesarean delivery scar. Although ultrasound remains the primary imaging modality for this diagnosis, MRI may be useful in the setting of equivocal cases and also may aid in the detection of possible placental implantation or bladder wall invasion.

Hysterectomy is the most common treatment option however; several types of conservative treatment have been used such as dilation curettage and excision of trophoblastic tissues using laparotomy or laparoscopy. Also, local and/or systemic MTX administration, bilateral hypogastric artery ligation, associated with dilation and evacuation under laparoscopic guidance and selective uterine artery embolization in combination with curettage and/or MTX injections. In patients who desire fertility after treatment of an ectopic pregnancy, physicians can offer medical and more conservative surgical management. Physicians should counsel patients who desire fertility, as 30% of these patients have difficulty conceiving after ectopic pregnancy treatment. Moreover, physicians should discuss the long-term risks of these pregnancies on subsequent pregnancies including risk of recurrent ectopic pregnancy, uterine rupture, and placental attachment abnormalities

Conclusion:

In summary, there should remain a high clinical suspicion for a caesarean scar ectopic in a patient with a history of caesarean deliveries and first trimester bleeding. These patients should be diagnosed with transvaginal ultrasound with confirmation with MRI if diagnosis is unable to be made via ultrasound. To prevent maternal haemorrhage, a patient presenting with a caesarean scar ectopic pregnancy should undergo prompt treatment depending on her clinical status and reproductive preferences

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