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Heartbeat in a Caesarean Scar: A Rare Case of Ectopic Pregnancy

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Introduction:

Caesarean scar ectopic pregnancy (CSEP) is a rare but serious condition where implantation occurs within the scar tissue from a previous caesarean incision. Due to rising rates of caesarean sections this rare ectopic is likely to become more prevalent and therefore prompt recognition and management is essential to minimise morbidity. This case study demonstrates the successful medical treatment of a live CSEP.

Case:

A 31yo, G10P4 was referred to hospital after an external early dating ultrasound at 5+4 weeks gestational age, revealed a suspected live CSEP. This was an IVF pregnancy with a new partner and the patient had no pain or vaginal bleeding. Her serum β-hCG was 3200. Her relevant obstetric history included four previous lower uterine segment caesarean sections (LUCS) and a laparoscopic left salpingectomy for a ruptured tubal ectopic. A repeat transvaginal ultrasound confirmed a single gestational sac (GS) with a mean sac diameter of 7mm in the superior portion of previous LUCS scar with 2mm of myometrium anteriorly. A fetal pole was present with a crown-rump-length of 3.9mm and a fetal heart rate of 118bpm.

Results:

The patient was extensively counselled regarding management options and the potential complications of continuing the pregnancy, including uterine rupture, placenta accreta spectrum, pre-term birth, massive haemorrhage and hysterectomy. The patient initially declined intervention opting for expectant management until able to confirm the placenta location. She re-presented to the emergency department one week later with light vaginal bleeding and at this stage consented to inpatient medical management with high-dose intravenous methotrexate. Close follow up was arranged with frequent monitoring of her β-hCG level which confirmed successful resolution of the pregnancy without any significant side-effects from treatment.

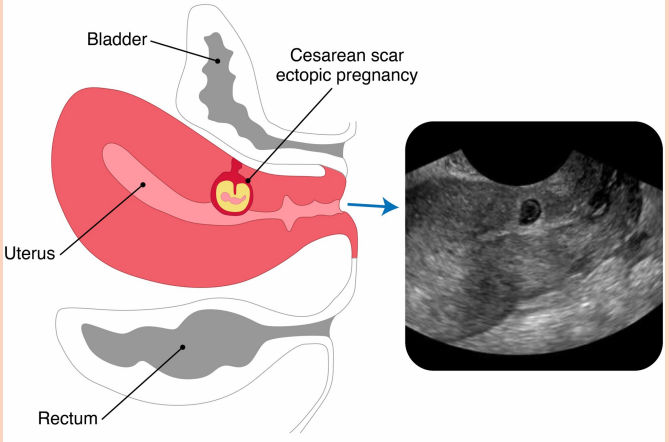

Figure 1. Anatomical and ultrasound depiction of caesarean scar ectopic pregnancy[1]

Discussion:

The ultrasound criteria for diagnosing CSEP involve observing an empty endometrial and cervical cavity, detecting a GS in the lower anterior uterine segment, and noting a thin (<5mm) or absent myometrium between the GS and the bladder[1]. Various medical and surgical interventions are available for managing CSEP, with expectant management generally discouraged[2]. This case highlights the unique emotional complexity for some patients with a CSEP, as it carries the potential for a live birth but also poses significant maternal morbidity risk if untreated. Further research is crucial to understand risk factors, optimise management, and assess the impact of medical and surgical interventions on subsequent pregnancies.

References:

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2. Tanaka, K., Coghill, E., Ballard, E., Sekar, R., Amoako, A., Khalil, A., & Baartz, D. (2019). Management of caesarean scar pregnancy with high dose intravenous methotrexate infusion therapy: 10-year experience at a single tertiary centre. *European Journal of Obstetrics & Gynecology and Reproductive Biology*, *237*, 28-32. https://doi.org/10.1016/j.ejogrb.2019.04.008