A Growing Problem: Caesarean Scar Ectopic Pregnancy Diagnosis, Management and Follow Up

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BACKGROUND

As caesarean section rates increase, caesarean scar defects (CSD) and caesarean scar ectopic pregnancies (CSEP) are becoming more common. Caesarean scar pregnancies are divided into two types based on implantation. Type 1 implantation is endogenic, where the gestational sac grows towards the uterine cavity or cervicoisthmic space. Type 2 implantation is exogenic growing towards the bladder[1]. CSEPs bear significant maternal morbidity and mortality with risk of uterine rupture, haemorrhage and hysterectomy.

CASE REPORT

A 40yo multiparous woman was referred to the early pregnancy service with a live CSEP diagnosed at six weeks gestation on routine dating scan and a bHCG of 9484 IU/L. This was an IVF pregnancy and she reported a two-day history of PV spotting. Her obstetric history included one caesarean followed by a successful vaginal birth in the next pregnancy.

Tertiary ultrasound confirmed a type 1 CSEP with a CRL of 5.71mm. Medical and surgical options of management were discussed. A two-stage procedure – firstly, with ultrasound-guided suction evacuation of the CSEP was performed. Serum HCG levels were monitored weekly until negative. As the residual myometrial thickness (RMT) ranged from 1.8-3.0mm, the CSD was revised as a second step via vaginal approach 3 months later.

Fig 1: 3D ultrasound reconstruction of CSD

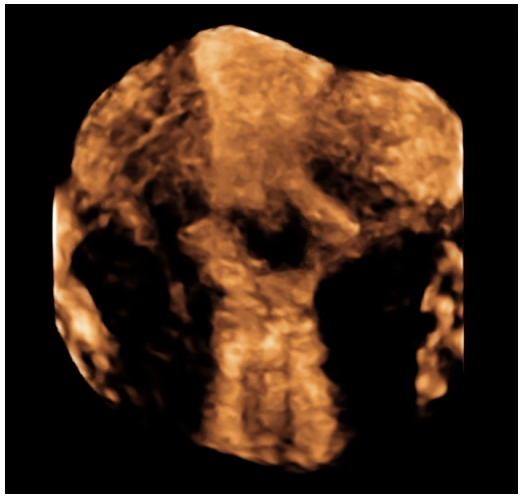
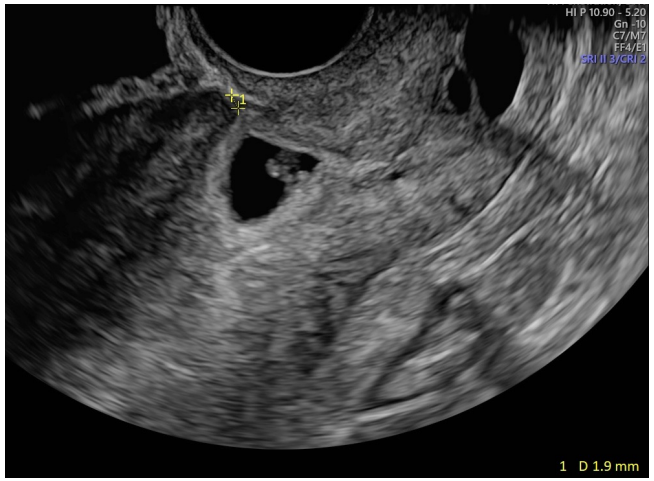


Fig 2: RMT measuring 1.9mm with CSEP in view



DISCUSSION

Management of caesarean scar ectopic pregnancies is complex and dependent on various factors including type, RMT, gestational age, bHCG level, and haemodynamic stability among others. Management typically consists of termination of the ectopic pregnancy +/- revision of the scar. Expectant management of CSEP is not recommended due to its high morbidity[2]. Medical management with local or systemic methotrexate is suitable for women with ectopic <8 weeks gestation, bHCG <5000, haemodynamically stable and pain-free. The Society for Maternal Fetal Medicine favours intragestational methotrexate over systemic methotrexate alone[2]. Other medical options include uterine artery embolization or high intensity focused ultrasound in combination with other treatment modalities. Surgical management is effective and can definitively revise the CSD at index admission or interval repair. This includes hysteroscopic, transvaginal or laparoscopic approaches. Hysteroscopy is preferred in type 1 CSEPs and if RMT ≥ 3mm, however cannot revise the scar. Vaginal or laparoscopic methods are preferred in type 2 CSEPs, if RMT is <3mm, and can remove scar tissue contemporaneously[3,4,5]. Recurrence of CSP is 20-34% regardless of mode of treatment although there is a paucity of evidence[6].

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