# Diagnosis and management of caesarean scar ectopic pregnancies over 18 months at a tertiary centre

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## Introduction

Caesarean scar ectopic pregnancies account for roughly 4% of all ectopic pregnancies and can occur in up to 1 in 531 women who have had 1 previous caesarean section[1]. Prompt recognition of a caesarean scar pregnancy is vital, as complications if unrecognised can include uterine rupture, haemorrhage requiring blood transfusion, and need for emergency hysterectomy[2].

As the incidence of caesarean section rises (from 7-21%)[3], it is likely that the rate of caesarean scar ectopic pregnancy will also rise. There is currently no evidence-based guideline regarding the management of this condition, which can lead to sub-optimal or prolonged management.

## Methods

This was a retrospective cohort study of all cases coded as caesarean scar ectopic pregnancies between January 2022 and July 2023. The data reviewed included serum HCG at diagnosis, gestational age at diagnosis, ultrasound findings, and treatment success. For the purposes of this audit, "success of treatment" was defined as the patient requiring no further treatment (either medical or surgical).

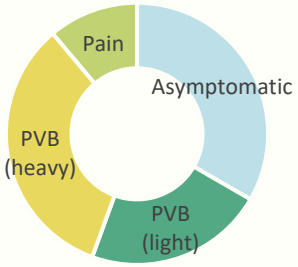



Figure 1. Presenting complaint

## Results

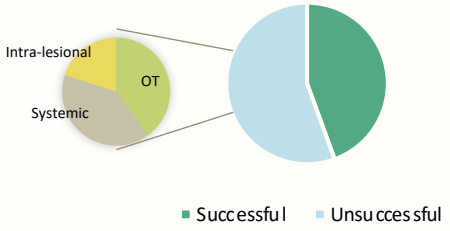
9 women were treated for caesarean scar ectopic pregnancies during this time period. Presenting complaints varied from asymptomatic, light vaginal bleeding, heavy vaginal bleeding (which, in this instance was defined as changing a pad every 2 hours), and pain. Time from last caesarean to presentation varied from 17months to 12 years, and a range of 1 to 9 caesareans per patient.

A foetal pole and foetal heart rate were seen in 6 of the 9 cases, with an average CRL of 7.95mm. Average gestational age at diagnosis was 6+5. The average serum HCG at time of diagnosis was 41809mIU/mL (with a range from 450-139200mIU/mL).

Initial treatment was successful in 4 of the 9 cases. Of the 5 cases where further treatment was required: 2 cases required emergency theatre, 2 required further systemic therapy and 1 required further intra-lesional therapy.

All patients who required further medical management had foetal pole and foetal heart rate present at time of diagnosis.

Figure 2. Success of treatment




## Discussion

Caesarean scar ectopic is a serious condition with increasing incidence and no standardised guideline for management. One of the four patients who had success with initial treatment had immediate intralesional administration. While this is a limited data set, all patients requiring further medical treatment had a foetal pole and heart rate at time of diagnosis, which suggests a role for initial intralesional treatment, especially if a foetal heart rate is present.

**References**

**1.** Bodur S, Ozdamar O, Kilic S, Gün İ. The efficacy of the systemic methotrexate treatment in caesarean scar ectopic pregnancy: a quantitative review of English literature. *J Obstet Gynaecol* 2015; **35**: 290–296.

**2.** Drever, N., Bertolone, J., Shawki, M. and Janssens, S. (2020), Caesarean scar ectopic pregnancy: Experience from an Australian tertiary centre. Aust N Z J Obstet Gynaecol, 60: 330-335

**3.** Health Sci Rep. 2023 May; 6(5): e1274. Published online 2023 May 18. doi: 10.1002/hsr2.1274