MANAGEMENT OF CAESAREAN SCAR ECTOPIC PREGNANCY (CSEP) – A FIVE YEAR EXPERIENCE

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BACKGROUND

- Caesarean scar ectopic pregnancy (CSEP) is a rare type of ectopic pregnancy characterised by implantation and growth of the gestational sac within a uterine caesarean scar.
- The incidence of CSEP is approximately 4% of all ectopic pregnancies[1].
- CSEP can be associated significant maternal morbidity such as:
  - Uterine rupture,
  - Hemoperitoneum,
  - Hypovolaemic shock,
  - Placenta accrete spectrum.

At present, there are *no guidelines* issued by NICE for this subset of ectopic pregnancies and the Royal College of Obstetricians and Gynaecologists (2016) state that there is insufficient evidence to support one single management option.

Historically, surgical intervention was thought to be the safest approach to manage CSEP however there is a large amount of evidence to suggest medical management as first-line treatment for CSEP.

Figure 1: CSEP on transvaginal ultrasound at Leigh early pregnancy unit

OBJECTIVE

Our aim was to develop an evidence-based approach to the management of CSEP, review our patient management and outcomes, and our centre's performance against the standard set by the NICE guidelines for ectopic pregnancies and local agreed standards.

METHOD + MATERIALS

- We sought data from the EPAU ectopic pregnancies at the Wrightington, Wigan and Leigh Hospital over a period of 49 months (from 1st May 2017 to 30th June 2021) and further details were obtained from the electronic patient records (EPR).
- Age, BMI, previous obstetric history, presenting symptoms, initial and serial βHCG, date and method of diagnosis, gestational sac/ crown-rump length, foetal cardiac activity and type of CSEP, treatment and pregnancy outcomes after CSEP were all recorded.
- We audited the clinical management of patients against three NICE guidelines based on current '*Ectopic pregnancy and miscarriage*' recommendations and two local guidelines.

19 patients were identified in this audit who all fulfilled the inclusion criteria set out by Godin et al.,[2]

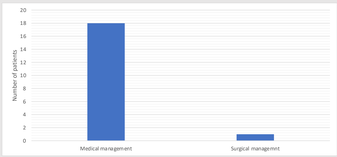
- Empty uterine cavity with no connection to the gestational sac
- Empty cervical canal
- Gestational sac implantation on lower anterior uterine segment, presumed to be the caesarean scar
- An absence of deficiency of healthy myometrium between the gestational sac and bladder – also known as a negative 'sliding organ sign'
- Peritrophoblastic doppler blood flow at previous caesarean scar

RESULTS + CONCLUSION

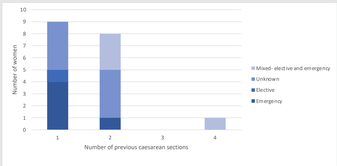
- 18 patients (95%) elected for medical management and were successfully treated with one or two weight based doses of methotrexate with little to no side effects without the need for surgical intervention.
- After appropriate counselling, one patient continued with her pregnancy though unfortunately underwent a surgical termination at 16 weeks.
- This centre's data further supports current literature of non-surgical management where early detection is of utmost importance.

Audit criteria	Target met (%)
Diagnosis of CSEP confirmed following the standard diagnostic criteria and NICE guidance 1.4.22	100%
Offer support and provide information in a sensitive manner following NICE guidance 1.1 *Support and Information Giving'* as well as provide consultant-led counselling on management of CSEP	100%
A detailed record of obstetric history of every patient is meticulously recorded including elective/emergency caesarean section (type, number, year)	• 42% had only number of LSCS recorded • 31% had complete records on type of caesarean section for each caesarean section • 26% had the year of the previous caesarean section recorded • 100% of patients had incomplete or missing records in all three domains
Management of ectopic pregnancy using NICE guidance 1.4.27	100%
Long term obstetric outcomes of each patient are recorded after resolution of CSEP	• 100% of individuals had year of subsequent pregnancy recorded • 33% of individuals had method of delivery recorded • 50% were lost to follow up, this may be due to having a delivery outside of Wrightington, Wigan or Leigh and so no available data was found on EPR

Management of CSEP at this center from 1st May 2017-30th June 2021



Proportion and type of previous caesarean sections in patients



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