

Caesarean Scar Niche: A High Risk Pregnancy

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INTRODUCTION

The rise in Caesarean Section (CS) rate has led to increased incidence in complications, including caesarean scar niche (CSN), an indentation of the scar due to tethering of the endometrium. CSN is detected on ultrasound and increases the risk of abnormal placentation and uterine rupture.^{1, 2} Thus patients need to be appropriately counselled and the timing of delivery discussed to avoid adverse events.

BACKGROUND

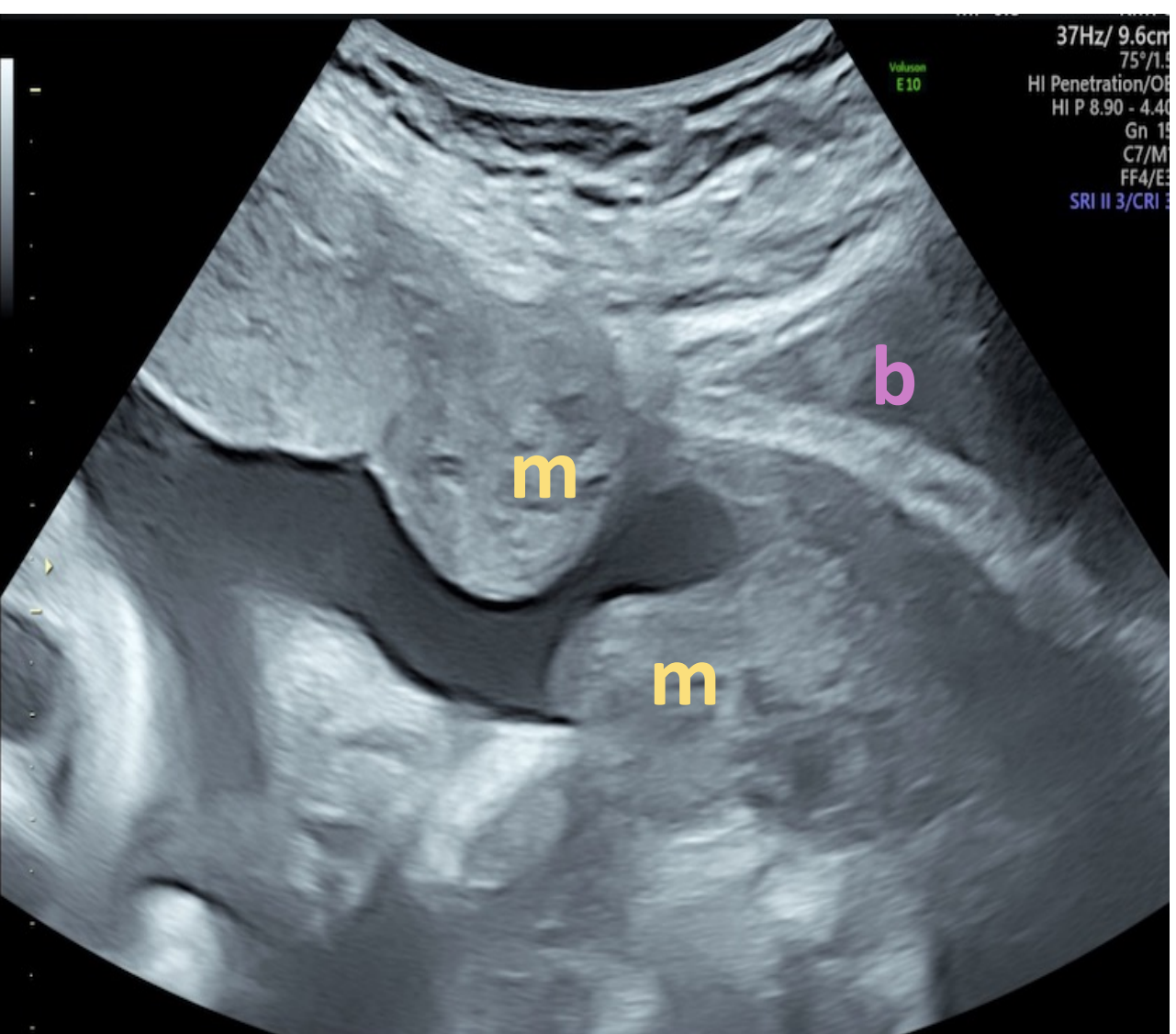
Our patient is a 32 year old G4P3 lady of normal BMI, with a background of two normal vaginal deliveries, and 1 CS for foetal distress. CSN was detected incidentally during a foetal medicine scan for suspicion of duplex left kidney at 28 weeks gestation, and was measured as 10.3mm at dome and 5.2mm at the neck respectively. An antenatal plan was made for the patient to have an elective Caesarean section between 38-39 weeks due to the increased risk of CS scar rupture.

MANAGEMENT

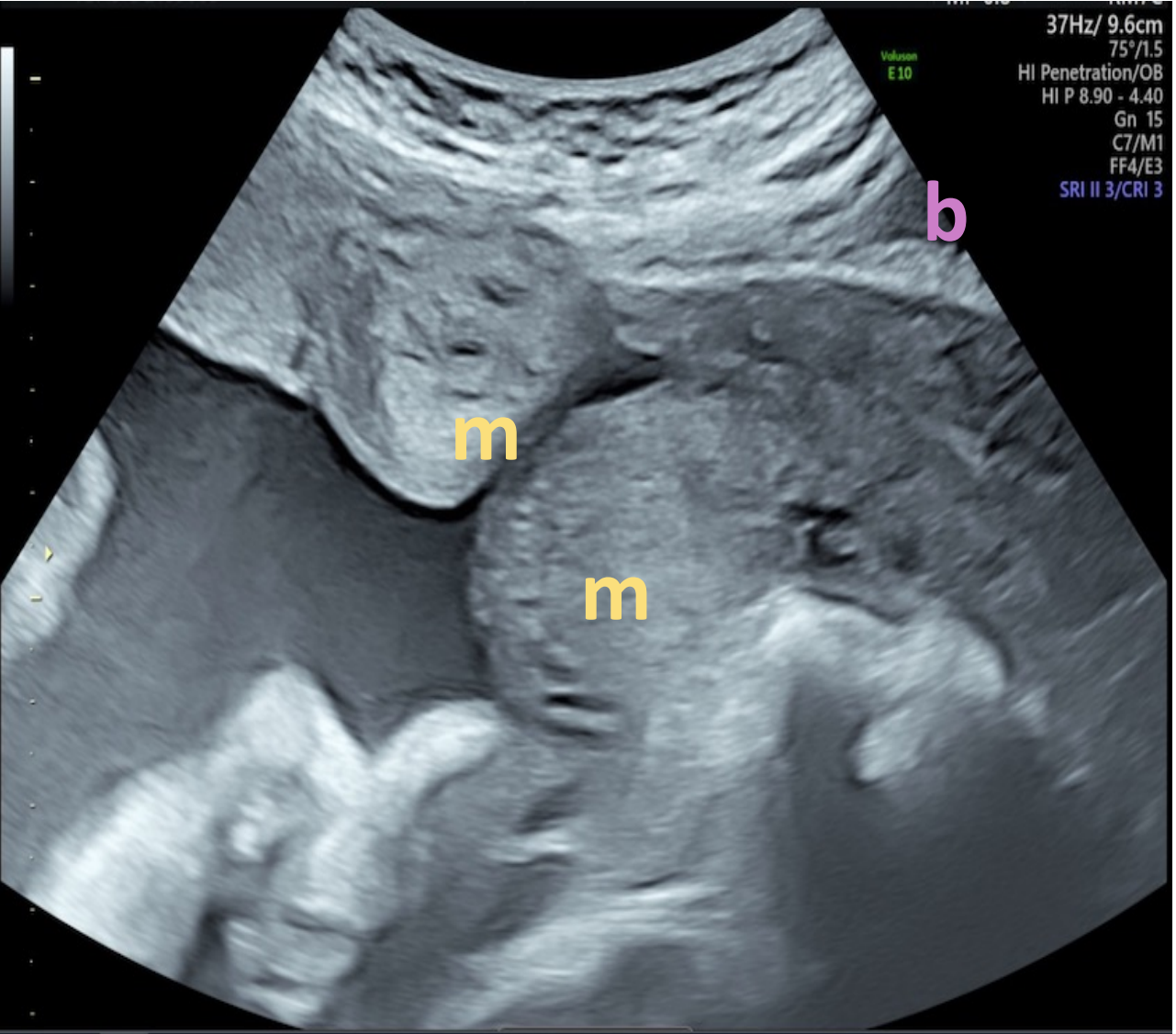
She presented at 37+4 weeks gestation with infrequent contractions and associated scar pain, which settled between contractions. She had no per vaginal bleeding or rupture of membranes, and reported good foetal movements. On speculum examination she had a multiparous os. On vaginal examination she was 2cm dilated, the presenting part was at -2 station, the membranes were intact, and the cervix was soft. There were no concerns regarding her Cardiotocograph.

The patient initially declined emergency CS overnight. She was re-examined 8 hours later (due to worsening of contractions), was 8cm dilated, and she agreed for the CS due to the risk of rupture. Intra-operatively, a 3-4cm defect was noted at the previous CS scar with a clot covering the area. Removal of the clot revealed scar dehiscence. The baby was born in good condition and cried at birth.

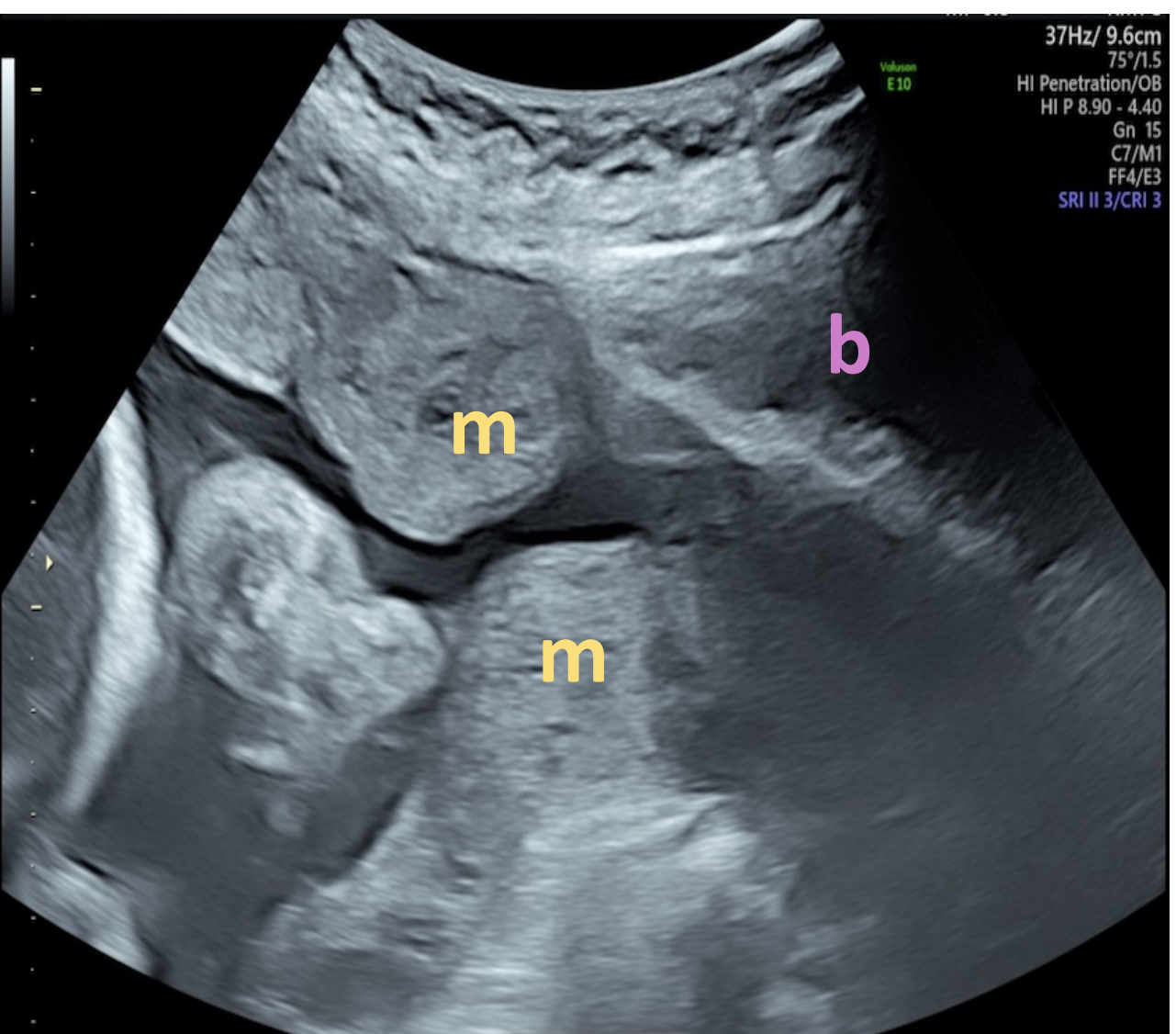
IMAGING



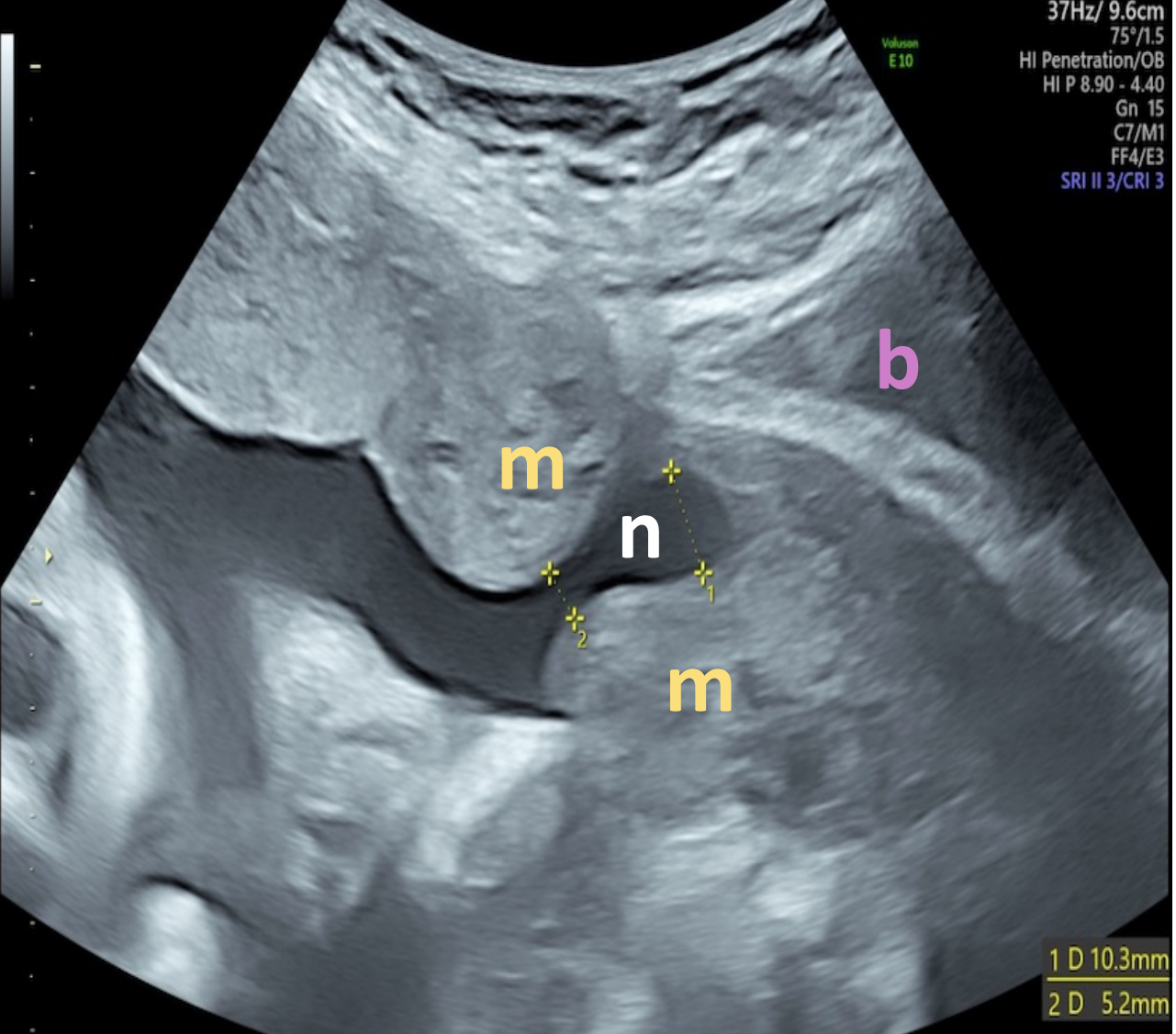
A



B



C



D

Ultrasound images at 28 weeks gestation displaying the Caesarean Scar Niche defect in the myometrium (m). The bladder (b) can be seen next to the defect. Image D shows the 10.3mm x 5.2mm niche (n).

DISCUSSION

The cause of CSN is unknown but is likely to be multifactorial. The incidence of CSN following one Caesarean section is 62%. Lower scars of close proximity to the cervix increase the risk of CSN due to accumulation of mucus at the communicating spaces resulting in impaired wound healing. Women symptomatic of CSN present with abnormal bleeding and pain, and complications include low implantation and uterine rupture. Gold standard for diagnosis involves ultrasound and MRI, and management may include laparoscopic or hysteroscopic repair, or hysterectomy.

CONCLUSION

CSN is becoming increasingly common due to the rise in the rate of caesarean section. It is important to counsel women about this potential long-term consequence of CS and consider its diagnosis in women presenting with symptoms and history of previous caesarean section. Thorough investigation with imaging and pre-conceptual management should be discussed with the patient should they want expand their family.

REFERENCES

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- 4 **Cohen, N.** et al. 'Cesarean scar niche, fertility and uterine rupture during labor – a retrospective study', *European Journal of Obstetrics Gynecology and Reproductive Biology.* 2023; **286**, pp. 107-111.

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