Uterine Incarceration Mimicking Caesarean Scar Pregnancy and Placenta Accreta Spectrum

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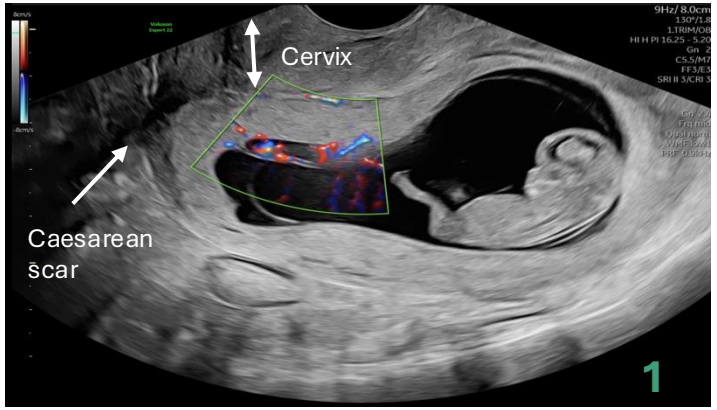
Background

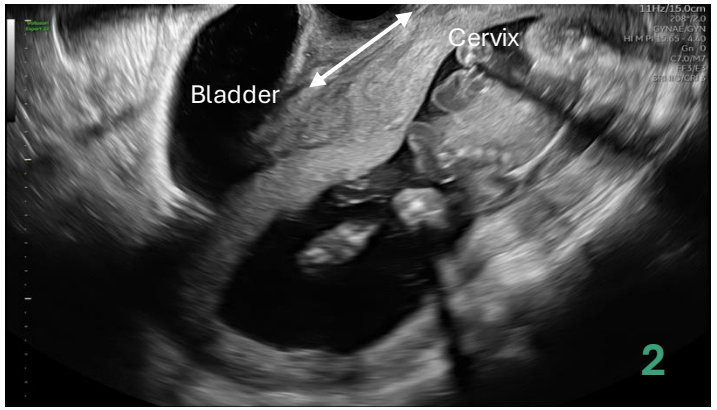
Incarceration of the gravid uterus (IGU) is a rare but serious complication of pregnancy, occurring in about 1 in 3000 to 1 in 10,000 pregnancies (1). A retroverted or retroflexed uterus will in most cases, move superiorly out of the pelvis in the second trimester. IGU occurs when the retroverted uterus becomes entrapped between the sacral promontory and pubic symphysis and fails to ascend into the abdominal cavity. Significant maternal and fetal morbidity can occur such as urinary retention, fetal growth restriction, obstructed labour, uterine rupture and intra-operative damage.

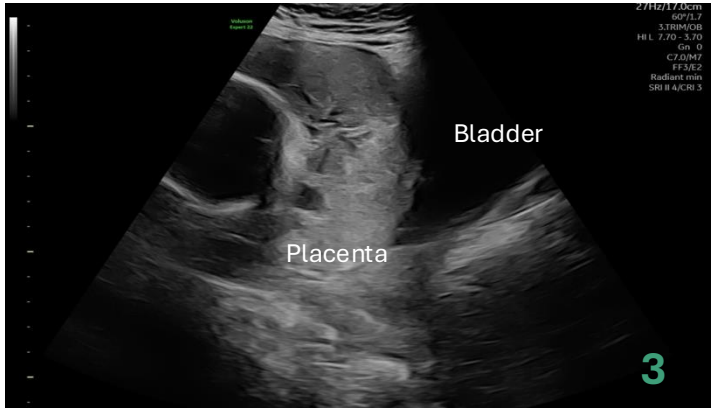
Case Report

We present a case of a woman with asymptomatic IGU complicated by placenta praevia, caesarean scar dehiscence and features mimicking placenta accreta spectrum (PAS).

- 39-year-old gravida 2 para 1, with one previous lower uterine segment caesarean section (CS). An ultrasound performed for bleeding in the first trimester noted that the gestational sac was at the level of the caesarean scar, with the developing trophoblast and placenta implanted at the scar and possibly expanding the caesarean scar niche.
- Initial sonographic features were suggestive of a Type 1 caesarean scar pregnancy with the concern being for evolution into PAS.
- The fundus failed to elevate over the course of the second trimester and the diagnosis of IGU was made at 20 weeks.
- The woman was asymptomatic, but concerns arose about PAS and scar dehiscence at the placental site. Successful operative correction of IGU was performed at 21 weeks gestation and stabilisation with a ring pessary.
- Recurrent episodes of antepartum haemorrhage (APH) occurred in the context major placenta praevia, and concerns for PAS and scar dehiscence, resulting in an emergency CS at 27 weeks gestation.
- Intra-operative findings were concerning for PAS and a peripartum hysterectomy was performed due to ongoing haemorrhage.
- Histopathology instead revealed a full thickness defect involving the previous lower segment caesarean scar consistent with a large dehiscence measuring 60 x 30 mm with the placenta having attached to the surrounding myometrium. There was less than 1 mm focus of PAS.
- The woman required a short stay in the high dependency unit due to blood loss, but recovery was overall uncomplicated. The neonate required nursery admission due to early gestation but is also doing well.







Discussion & Conclusion

While IGU is a rare clinical entity and often spontaneously resolves as the pregnancy progresses, it is a serious complication of pregnancy that can lead to adverse obstetric outcomes. Risk factors include a retroverted uterus, previous abdominal or pelvic surgery, adhesions, ovarian cysts and uterine pathologies (2). Failure to recognise its presence and correct persistent IGU in early pregnancy worsens maternal and fetal outcomes in later pregnancy.

The most common presentation is abdominal pain with urinary retention. However, many also have non-specific symptoms, making misdiagnosis common and require multiple visits before a diagnosis is made. (3). As such a high level of suspicion is important for timely diagnosis and to reduce the chance of maternal and fetal adverse outcomes.

In this case, the stretch placed on the anterior lower uterus by the incarceration likely increased the extent of the uterine dehiscence, and precipitated episodes of antepartum haemorrhage due to partial placental separation, as well as causing the overlap with ultrasound features of PAS.

This case highlights that rare clinical entities having significant impacts on maternal and fetal outcomes can coexist and have overlapping symptoms, signs and investigation findings, making their diagnosis and management challenging.

Image Descriptions

Image 1: transvaginal ultrasound at 10 weeks and 4 days noting positioning of the pregnancy and placenta in relation to previous CS scar.

Image 2: IGU diagnosed on transvaginal ultrasound at20 weeks and 2 days, noting positioning of the uterine fundus, bladder and stretching of the cervix.

Image 3: transabdominal ultrasound at 26 weeks and 4days following correction of IGU, noting major placenta praevia with thin myometrium at the level of the bladder, features concerning for PAS.

References

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