

EPO1.44 Anunusual case of myometrial gestation diagnosed by transvaginal ultrasound by Dr Ambali-Belgore

Introduction

- Myometrial gestation is a rare ectopic pregnancy implanted within the uterine muscle wall.
- Previous uterine surgery is a major predisposing factor.
- Early diagnosis is essential to prevent uterine rupture and preserve fertility.
- Transvaginal ultrasound with Color Doppler is the preferred first-line imaging modality.

Case Presentation

- 38-year-old female, G9P4+4 (4 spontaneous pregnancy losses), 3 living children, presented at 6 weeks gestation with 3 days of vaginal bleeding and lower abdominal pain.
- Significant obstetric history included four previous cesarean sections and four first-trimester pregnancy losses.
- The index pregnancy was unplanned; the patient reported intermittent use of Postinor® (emergency contraception).
- Initial ultrasound suggested an empty uterus with no adnexal mass, raising suspicion for ectopic pregnancy.
- A repeat transvaginal ultrasound (TVUS) demonstrated an eccentrically located oval anechoic gestational sac within the lower uterine segment myometrium, containing a yolk sac but no fetal pole.
- The gestational sac was completely surrounded by myometrial tissue, separate from the endometrial cavity, with no communication with the endometrial stripe.
- Color Doppler showed characteristic peripheral "ring of fire" vascularity, supporting the diagnosis of myometrial (intramural) pregnancy.
- No free fluid was seen in the pouch of Douglas, and both ovaries appeared normal.
- MRI was not performed because the hospital scanner was unavailable and the patient could not afford alternative imaging.

Discussion

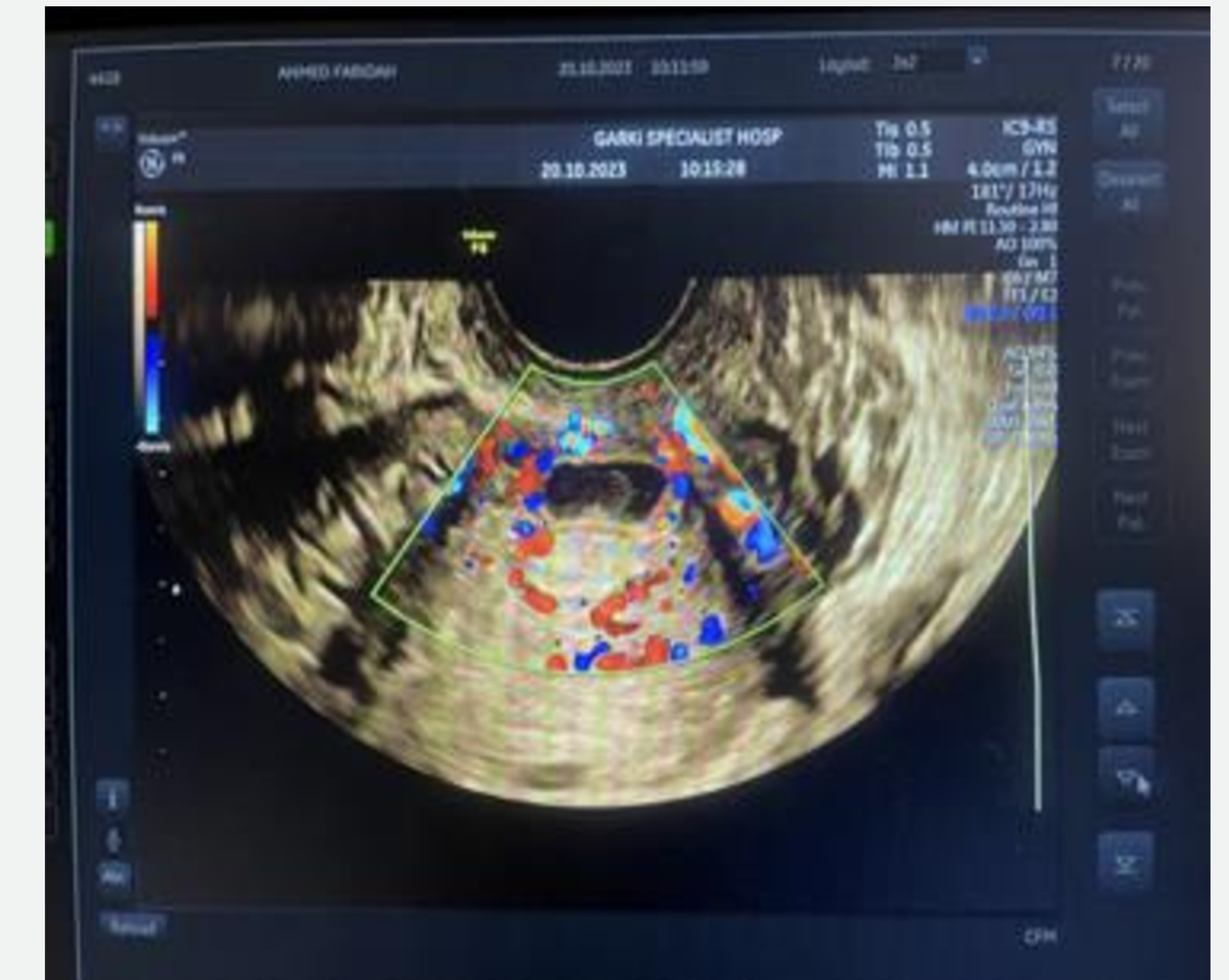
- Intra-myometrial gestation is an extremely rare ectopic pregnancy, accounting for approximately 1% of ectopic pregnancies.
- Major risk factors include previous uterine trauma, particularly multiple caesarean sections and recurrent miscarriages requiring uterine instrumentation, both of which were present in this patient.
- Transvaginal ultrasound with Color Doppler is the primary diagnostic tool, typically demonstrating a gestational sac completely surrounded by myometrium with peripheral hypervascularity ("ring of fire").
- Diagnosis can be challenging and may be missed initially because the gestation is embedded within the myometrium rather than the more common ectopic locations.
- Early diagnosis at 7 weeks gestation enabled conservative management with methotrexate, avoiding surgery and reducing the risk of uterine rupture.
- Management depends on gestational age, lesion size, clinical stability, and future fertility wishes, with options ranging from medical therapy to surgical intervention in advanced or complicated cases.

Conclusion

- Myometrial (intramural) pregnancy is a rare but potentially life-threatening form of ectopic pregnancy.
- Early diagnosis using transvaginal ultrasound with color Doppler is essential for timely management.
- Previous cesarean sections and uterine trauma are important risk factors and should raise clinical suspicion.
- In this case, systemic methotrexate successfully treated the pregnancy, avoiding surgery and preserving uterine integrity.
- Careful clinical, biochemical (β -hCG), and ultrasound follow-up is crucial to confirm treatment success.
- Greater awareness of this uncommon condition can improve diagnosis, reduce complications, and optimize patient outcomes.

Limitation

A limitation of this case was the inability to perform MRI due to equipment unavailability and financial constraints.



Oval anechoic lesion with peripheral "ring of fire" vascularity on Doppler TVUS.



Intramural gestational sac completely surrounded by myometrium.