

Crucial Role of Urinary Pregnancy Testing in Reproductive-Age Women with Abdominal Pain: A Case of Missed Ectopic Pregnancy



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BACKGROUND

Ectopic pregnancy, the implantation of a fertilised ovum outside the uterine cavity—most commonly in the fallopian tube—remains a significant cause of maternal morbidity and mortality. In the UK, it affects approximately 1 in 90 pregnancies, translating to over 11,000 cases annually.¹

OBJECTIVE

To emphasise the critical role of a urinary pregnancy test (UPT) in the early diagnostic work-up of women of reproductive age presenting with abdominal pain and to highlight the consequences of diagnostic delay due to missing UPT documentation.

CASE SUMMARY

Clinical Presentation

- Age: 28
- Symptoms: Right iliac fossa (RIF) pain, vaginal spotting
- Haemodynamic Status: Stable
- Initial Findings:
 - Mild suprapubic and RIF tenderness
 - Haemoglobin: 132 g/L
 - Urine dip: Haematuria (erythrocytes 4+)
 - No documented UPT

Investigations

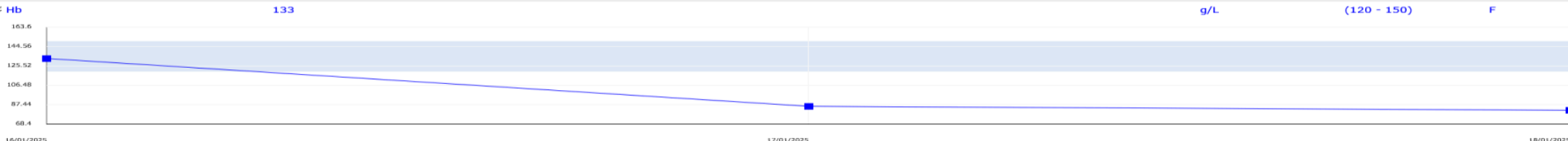
- CT Urogram: Normal kidneys; incidental pelvic haematoma and ascites
- Ultrasound (TVS): Heterogeneous pelvic mass (81 × 41 mm), adjacent fluid collection with low-level echoes suggesting haemorrhage
- Delayed BhCG: 237 IU/L
- UPT: Positive (repeated in gynaecology assessment)

Surgical Findings

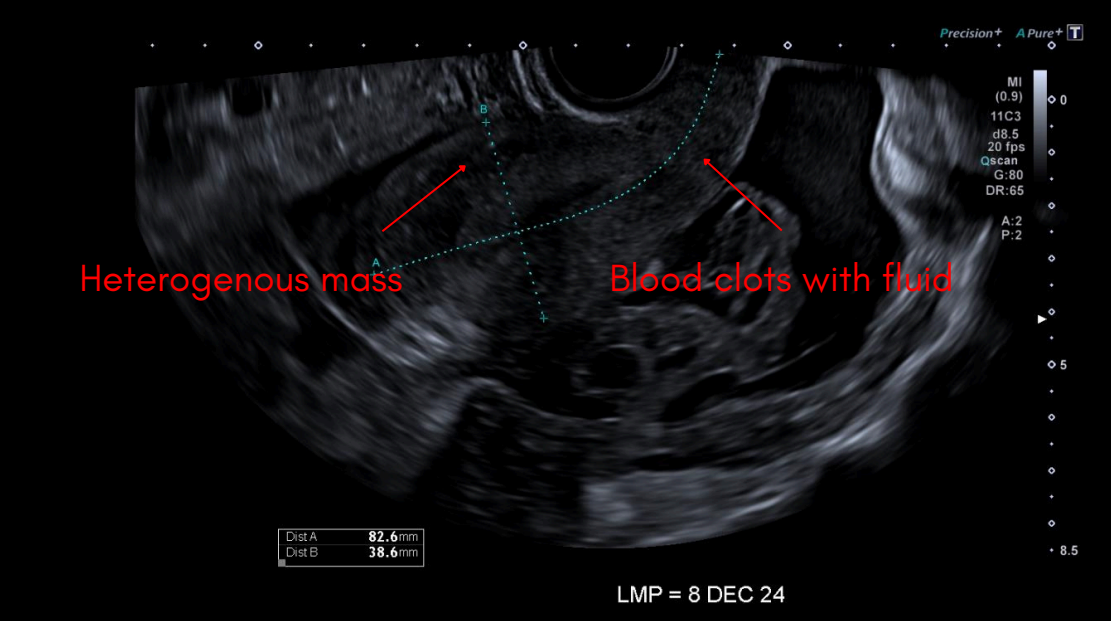
- Procedure: Emergency laparoscopy
- Findings: Right-sided ectopic pregnancy (4 × 3 cm), 1.7L haemoperitoneum
- Management: Right salpingectomy
- Post-op course: Stable recovery with iron infusion; discharged after 48 hours

Key Issues Highlighted

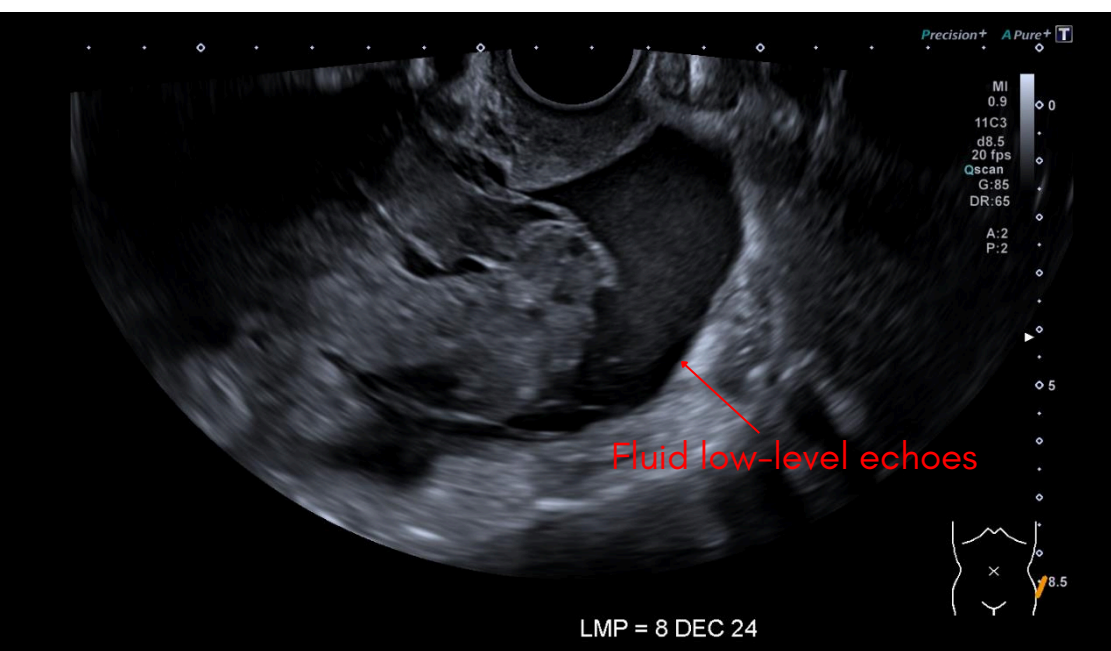
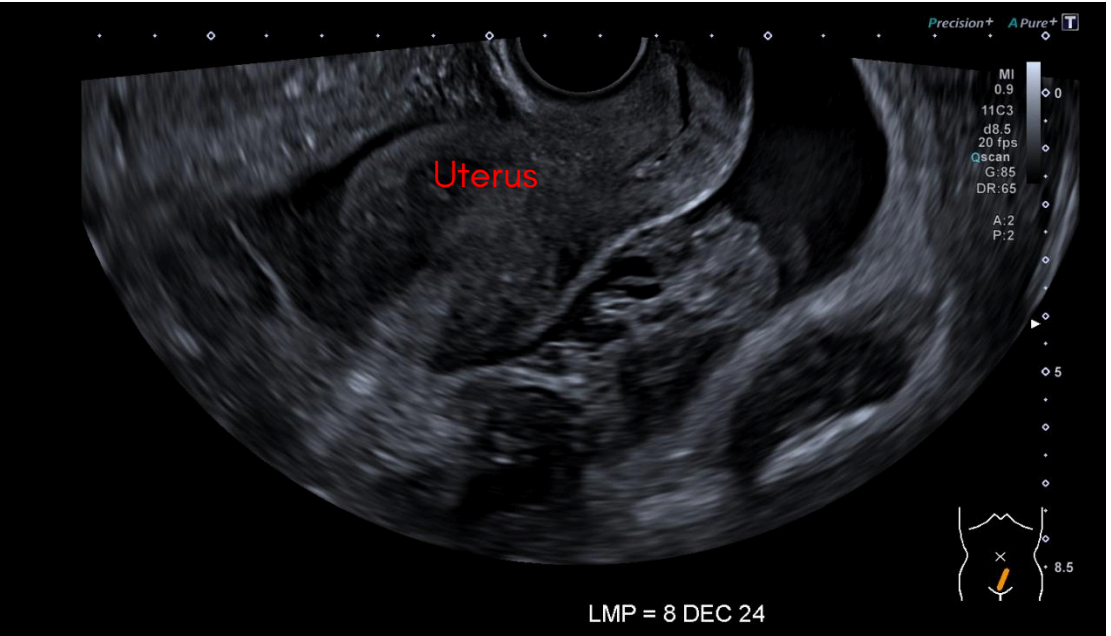
Challenge	Impact
Missing UPT at triage	Delayed pregnancy-related diagnosis
Confounding haematuria	Initial misdirection toward urinary tract pathology
Preserved haemodynamics	Masked severity of internal bleeding
Diagnostic delay	Risk of further decompensation avoided by imaging



Haemoglobin before and after surgery



Transvaginal Ultrasound



DICUSSION

Early Diagnosis Is Critical
Ectopic pregnancy can rupture before overt signs of hypovolaemic shock appear. Women in early pregnancy, especially if healthy, may physiologically compensate for up to 1.5–2 litres of blood loss².

Why Urinary Pregnancy Testing Matters

- Rapid, non-invasive, low-cost**
- Essential for excluding or confirming pregnancy-related pathology in A&E, especially when presentations are non-specific or misleading
- Should be routine in **all reproductive-aged women** presenting with lower abdominal pain, regardless of haematuria or haemodynamic status

Imaging and Communication

- TVS** remains the gold standard for identifying ectopic gestation³
- Effective **interprofessional communication** and complete documentation (including UPT) are essential for prompt escalation
- Missing a simple test can delay diagnosis, increase resource use (e.g., CT), and risk patient safety

LEARNING POINTS

- Ectopic pregnancy can present subtly—UPT should be performed in **all** reproductive-age women with abdominal pain.
- Haematuria and haemodynamic stability do **not** rule out ruptured ectopic pregnancy.
- Early pregnancy complications require early and thorough **documentation and multidisciplinary coordination**.
- Prompt use of TVS and BhCG following a positive UPT ensures timely intervention.
- Delay in diagnosis may increase maternal morbidity, emotional trauma, and healthcare costs.

CONCLUSION

This case underlines a fundamental but frequently overlooked principle: **always perform and document a urinary pregnancy test in reproductive-age women with abdominal pain**. Missed early cues can lead to diagnostic delays and compromise patient safety. A vigilant, protocol-driven approach improves outcomes and reduces clinical risk.

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