

# [EP 03.09] HETEROTOPIC PREGNANCY: A RARE CASE OF COEXISTING INTRAUTERINE AND ECTOPIC PREGNANCY

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## 1. Introduction

Heterotopic pregnancy is an uncommon condition with an incidence of 1 in 30,000 in spontaneous conception but is significantly higher (1 in 700) in assisted reproductive technologies (ART). Interstitial pregnancies account for 2-4% of all ectopic pregnancies, yet their high vascularity and myometrial location increase the risk of catastrophic rupture. Diagnosing heterotopic pregnancy is challenging due to the presence of an intrauterine pregnancy, often delaying recognition of the ectopic component. This report presents a case of a heterotopic pregnancy involving an intrauterine pregnancy coexisting with an interstitial ectopic pregnancy.

## 2. Case Presentation

### Patient Information

A 30-year-old woman, G2P0, presented at 5 weeks 4 days of gestation with mild vaginal spotting, mild lower abdominal pain. She conceived IVF treatment, transferred two embryos. She had history of ectopic pregnancy with the left tubal surgery.

### Clinical Examination

- Vitals: Blood pressure: 110/70 mmHg, Heart rate: 88 bpm, Temperature: 37°C
- Abdominal exam: Mild tenderness in the left lower quadrant
- Speculum exam: No active vaginal bleeding
- Bimanual exam: Uterus slightly enlarged, no palpable adnexal mass

### Investigations

- Serum  $\beta$ -hCG: 9054 mIU/ml
- Transvaginal 2D ultrasound and 3D ultrasound:
  - Intrauterine pregnancy: A single viable gestational sac with CRL # 2 mm.
  - Interstitial pregnancy: A separate gestational sac with a yolk sac, GS # 12 mm, located in the right interstitial portion of the uterus, surrounded by a thin myometrial layer # 2 mm.
  - No significant free fluid in the pelvis.

### Diagnosis

A heterotopic pregnancy with a 5.5-week intrauterine gestation and a right interstitial pregnancy.

### Management

Given the risk of rupture, the patient underwent laparoscopic cornuostomy. The interstitial pregnancy was removed with minimal bleeding (# 100 ml), and hemostasis was achieved. The intrauterine pregnancy remained viable postoperatively.

The patient recovered well and continued routine antenatal care. She delivered a healthy baby at 37 weeks via cesarean section due to prior uterine surgery.

### Discussion

Heterotopic pregnancy is difficult to diagnose, particularly when the ectopic pregnancy is interstitial, as symptoms may be mild until rupture occurs. Early ultrasound and high clinical suspicion are crucial for timely intervention.

### Key Learning Points

- Always consider heterotopic pregnancy in early pregnancy with abdominal pain, even if an intrauterine pregnancy is visible.
- Interstitial pregnancies carry a high risk of uterine rupture and require early diagnosis.
- Laparoscopic cornuostomy is a safe and effective treatment option to preserve fertility and protect the intrauterine pregnancy.

### Conclusion

This case highlights the importance of early ultrasound diagnosis and timely surgical intervention in managing heterotopic pregnancies. Recognizing interstitial pregnancies early can prevent life-threatening complications while allowing successful continuation of an intrauterine pregnancy.

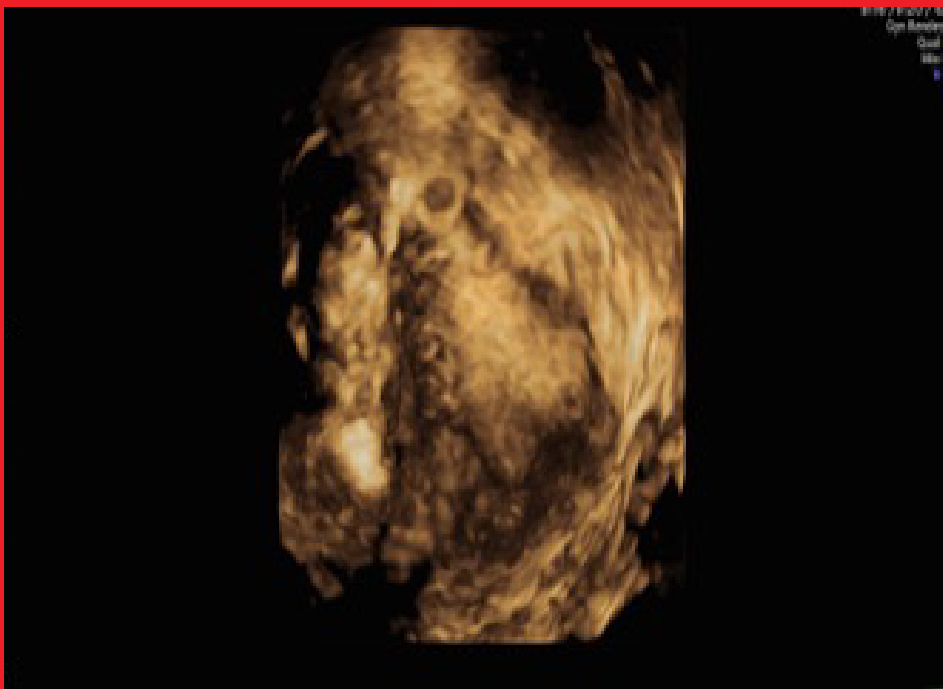


Image 1: 3D ultrasound image showing an interstitial ectopic pregnancy

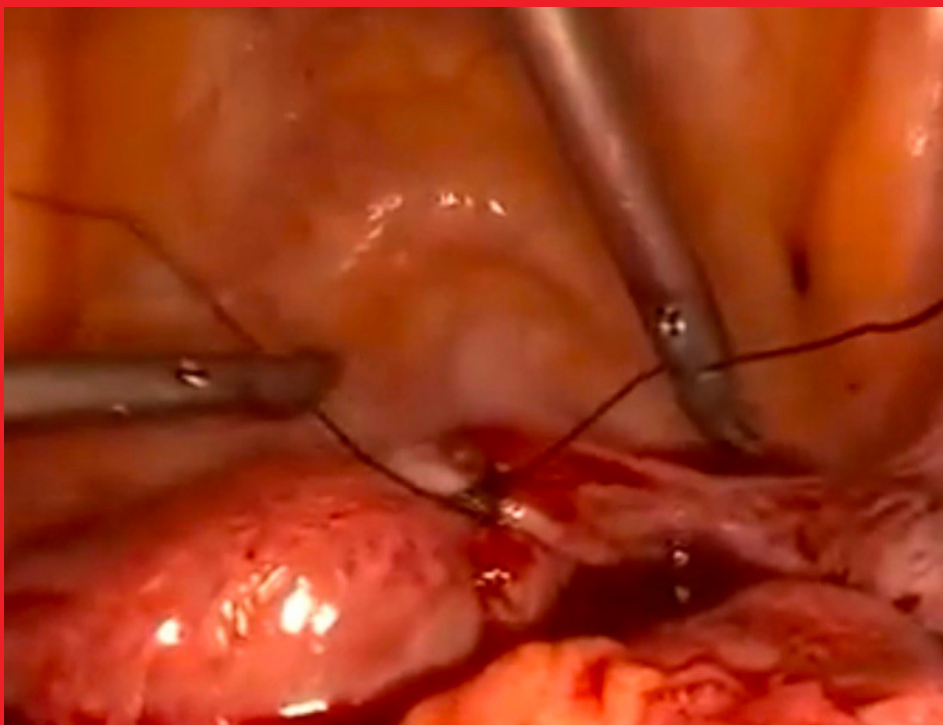


Image 2: Laparoscopic cornuostomy for interstitial ectopic pregnancy