# A Rare Case of Histologically Confirmed Ovarian Ectopic Pregnancy with Unconvincing Imaging and Intraoperative Findings

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## Background

Ovarian ectopic pregnancy (OEP) is a rare condition which occurs when fertilization of an egg occurs in the peritoneal cavity leading to implantation within the ovarian parenchyma. Although the estimated incidence is only 0.5-3.5% of all ectopic pregnancies, it is life threatening in most cases as it often terminates with rupture in first trimester.

## Case Report

A 28-year-old multigravida, with a previous term vaginal delivery, presented to the emergency department with sudden onset severe deep dyspareunia and mild lower abdominal discomfort post intercourse. She reported being amenorrhoeic for last 2 months following a medical management of miscarriage and did not suspect she was pregnant again as she had no pregnancy symptoms. The patient's medical history included chlamydia trachomatis infection 6 years ago treated with antibiotics. She disclosed history of smoking 15 cigarettes per day and unprotected intercourse with multiple sexual partners recently. On physical examination, her vital signs were in normal range and abdomen was soft, with mild lower abdomen tenderness. There was no rebound tenderness, guarding or rigidity. There was mild cervical motion tenderness. Pregnancy was confirmed by B-hCG level of 2333 IU/L however a transvaginal ultrasound revealed an empty uterus, moderate free fluid in pelvis and a possible 13mm functional left ovarian cyst. Her haemoglobin level was 133 g/L. She remained stable while in the emergency department and her pain settled with oral opioids.

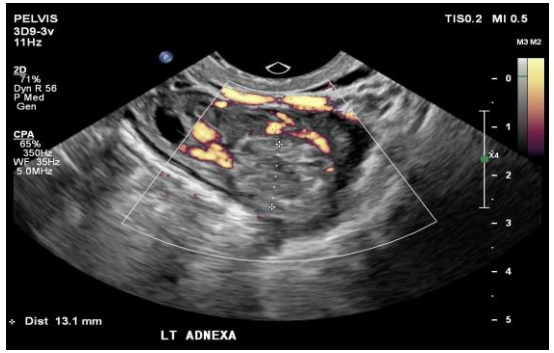


Figure 1: Pelvic ultrasound finding of possible 13mm follicular cyst

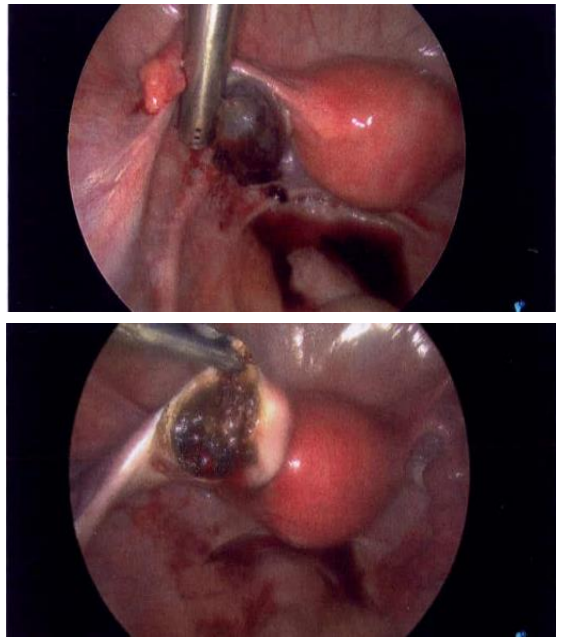

Figure 2 and 3: Intra-operative finding of OEP

## Results

A clinical diagnosis of ruptured ectopic pregnancy was made. The patient underwent laparoscopic surgery which revealed 200 mL of blood in pelvis and a 2x2cm hemorrhagic mass in left ovary which was suspected to be either a hemorrhagic cyst or ovarian ectopic pregnancy. A biopsy of this mass and pelvic washout was done. She recovered well from the procedure and was discharged in stable condition on day 1 post surgery. Histopathological examination confirmed the diagnosis of OEP. The patient was followed up in clinic for 1 month with weekly B-hCG tracking till it was negative.

## Discussion

Women with OEP are at high risk of rupture and circulatory collapse as ovarian tissue lacks the elasticity to contain the pregnancy. Patients usually present with symptoms similar to ruptured tubal ectopic pregnancy. Although early diagnosis is essential to prevent maternal morbidity and mortality, a diagnosis is often difficult to achieve with ultrasound. In about 28% cases, correct diagnosis may be achieved during surgery however, like in our case, it is usually difficult to differentiate a ruptured OEP from a haemorrhagic corpus luteum just based on appearance. Histopathology gives the definitive diagnosis. Follow-up with serial B-hCG is essential to ensure full resolution.

**References:**

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