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Case Report

A rare case of incidental chronic ovarian ectopic encountered in a case of ruptured ectopic pregnancy

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ABSTRACT

Chronic ectopic pregnancy has mild clinical presentation with absent or subtle symptoms. The high incidence of negative pregnancy tests and a poor specificity of ultrasonography can be misleading, and the correct diagnosis is sometimes established only at the time surgery with its nature or even histopathologically after the operation. Here is the case of chronic ovarian ectopic diagnosed accidentally during the case of ruptured tubal ectopic. 34 years G4P2+1L2 underwent laparoscopic salpingectomy for ruptured tubal ectopic left side. She had a regular menstrual cycle of 24 days and complained of chronic dull aching lower abdomen pain off and on during cycle. Ultrasonography echogenic hemoperitoneum with an anechoic area measuring 19×24.3×23.1 mm with embryo-like echo (18.8 mm in length) amidst the echogenic region. On doing laparoscopy the left ruptured tubal ectopic removed with clearing of hemoperitoneum revealed right bluish black color cyst adherent to adjacent structure forming tubo-ovarian mass. A chronic ectopic pregnancy is often difficult to diagnose due to its subtle symptoms and varied echogenicity in ultrasound. It is often mistaken with chronic PID with tubo-ovarian mass or endometrioma.

Keywords: Pregnancy, Ectopic, Chronic ectopic pregnancy, Hemoperitoneum, Ruptured tubal ectopic

INTRODUCTION

An ectopic pregnancy, a condition where the conceptus—the nascent product of conception comprising the early embryo and its developing gestational tissues—implants outside the confines of the uterine cavity, presents a significant obstetric challenge. While its general incidence ranges from 1% to 2% of all pregnancies, this figure escalates to a notable 4% in cases involving assisted reproductive technology, underscoring the increased risk associated with such interventions.¹ The vast majority of ectopic implantations, specifically 93% to 97%, occur within the fallopian tube, which is the most common extrauterine site.² However, other rarer locations exist, with ovarian ectopic pregnancy being a considerably less frequent occurrence, estimated at about 1 in 7,000 to 1 in 40,000 live births according to the International Society of Ultrasound in Obstetrics and Gynecology (ISUOG). Fortunately, in developed nations today, advancements in

ultrasonic imaging have revolutionized early detection, often identifying ectopic gestations while they remain unruptured, thereby broadening the scope for non-surgical management options and preventing severe complications.¹ Despite these diagnostic improvements, ectopic pregnancy can still manifest as an acute, life-threatening event characterized by fallopian tube rupture, leading to rapid hemodynamic instability (a severe drop in blood pressure and circulatory compromise) and hemoperitoneum (the accumulation of blood within the peritoneal cavity).

A particularly insidious and diagnostically challenging variant is chronic ectopic pregnancy (CEP). This condition arises when the trophoblastic tissue—the cells that would normally form the placenta and anchor the embryo to the uterine wall—persistently invades the ectopic implantation site. This relentless invasion leads to a gradual, ongoing destruction of the surrounding tissue and

recurrent episodes of minor bleeding. Over time, this repeated hemorrhage culminates in the formation of a haematocoele, a localized collection of blood, often clotted, which accumulates in the pelvic region.¹ The presence of this haematocoele subsequently triggers a significant inflammatory response within the pelvic cavity, fostering the development of chronic pelvic adhesions. These fibrous bands of scar tissue can cause considerable pain and often coalesce to form a palpable complex pelvic mass, frequently mimicking other gynecological pathologies like ovarian cysts or fibroids, thereby complicating diagnosis.

Here is a rare case of chronic ectopic pregnancy diagnosed incidentally during laparoscopic salpingectomy for ruptured tubal ectopic pregnancy.

CASE REPORT

A 34-year-old patient gravida 4 (G4) para 2 (P2) live 2 (L2) abortion 1 (A1) presented in emergency department of Obstetrics and Gynaecology, at Apollo Hospital Bilaspur Chhattisgarh with the complaints of sudden onset of severe abdominal pain for 4 hours, vomiting and fainting. Her LMP was 26 days back and had slight spotting 3 days before the event. Her husband gave history that her past cycles were regular of 24 days and she had chronic dull aching lower abdomen pain off and on during the cycles. She was married for eight years and belongs to low socioeconomic status.

She was haemodynamically unstable, she had tachycardia 88 beats/min and hypotensive 100/60 mmHg. Abdominal examination revealed lower abdomen tenderness, rigidity and guarding were present. Speculum examination revealed tenderness in bilateral fornices with pale vaginal mucousa. Her β hCG levels was high, Hb-7 gms/dl within 6 hours of pain. Her urine pregnancy test was positive, pelvic ultrasound revealed empty uterine cavity and hemoperitoneum with an anechoic area measuring 19×24.3×23.1 mm with embryo-like echo (18.8 mm in length) amidst the echogenic region. Possibility of ectopic pregnancy was explained to her and shifted to operation theatre. An emergency diagnostic laparoscopy was done with a preoperative provisional diagnosis of ruptured left tubal ectopic pregnancy. Intraoperative the uterus was normal in size. Abdomen was filled with 800 ml of fresh blood clots. Left salpingectomy was carried out. After clearing the field the left ovary apparently normal but the right ovary was cystic size 5x5cm approx with bluish black appearance. It was adherent to posterior surface of uterus and right tube making tubo-ovarian mass. It was suspected to be right side endometriosis. On exploration, the cyst was soft, non-fluid filled with no proper demarcation cyst wall. The tissue within the cyst was friable giving appearance of trophoblastic tissue admixed with clots.

Histopathology identified the contents as an old ectopic pregnancy with an acute inflammatory cell infiltrate and

occasional hyalinized, necrotic and partly necrotic chorionic villi. And left side ruptured tubal ectopic.

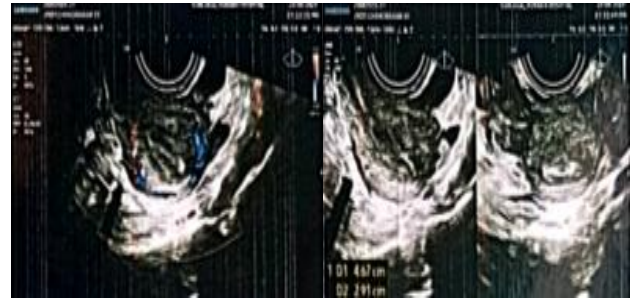


Figure 1: Ruptured tubal ectopic with ring of fire appearance.



Figure 2: Laparoscopic view of chronic ovarian ectopic left side.

DISCUSSION

Chronic ectopic pregnancy (CEP) represents a particularly challenging variant of ectopic pregnancy, characterized by its often misleadingly mild clinical presentation. Unlike acute ectopic pregnancies, which typically manifest with sudden, severe pain and significant bleeding, CEP often presents with absent or subtle symptoms, making early diagnosis difficult. Patients may experience vague abdominal or pelvic pain, intermittent vaginal bleeding that can be mistaken for a menstrual period, or no symptoms at all, as evidenced by studies where Cole et al and Ugur et al observed a notable percentage of asymptomatic admissions.^{4,6} 2 out of 50 and 4 out of 62 patients had no symptoms at all on admission according to Cole et al and Ugur et al research, respectively.^{4,6}

The diagnostic dilemma is further compounded by the limitations of standard gynecologic tests. Ultrasonography, while crucial in diagnosing most ectopic pregnancies, frequently shows non-specific findings in CEP. It often reveals a complex pelvic mass, but this can easily be confused with other common gynecological conditions such as pelvic inflammatory disease, endometriomas, uterine fibroids (leiomyomas), or various types of ovarian cysts and neoplasms.³ Bedi et al reported that a complex mass occupying the adnexa and cul-de-sac was seen in every case they evaluated, with the variable

echo patterns reflecting different stages of hemorrhage and organization.⁵ Adding to this complexity, beta-human chorionic gonadotropin (beta-hCG) levels, a cornerstone in diagnosing and monitoring early pregnancy, are often low or even negative in CEP.³ This is thought to be due to the sparse or non-viable trophoblastic tissue, which is responsible for producing hCG, in these chronic cases.

Given these diagnostic hurdles, the most reliable means of confirming CEP often shifts to findings during surgical exploration. Cole et al and Ugur et al, along with Bedi et al, stated that intraoperative findings correlate best with the pathophysiology of this condition.⁴⁻⁶ Visualization of old blood, evidence of trophoblastic tissue in the peritoneal cavity, the presence of a pelvic hematocele (a collection of blood in the pelvis), and adhesions between the fallopian tube and surrounding organs are considered pathognomonic. Even then, a definitive diagnosis may not always be clear to the surgeon in real-time. In such instances, the gold standard becomes the pathological examination of the surgical specimen. The microscopic identification of necrotic, hyalinized, or "ghost" villi (remnants of placental tissue) alongside inflammatory changes is conclusive for chronic ectopic pregnancy. This multi-faceted diagnostic approach underscores the insidious nature of CEP and the need for a high index of suspicion, especially when faced with non-specific pelvic symptoms or atypical presentation of early pregnancy.

CONCLUSION

A chronic ectopic pregnancy is often difficult to diagnose due to its subtle symptoms and varied echogenicity in ultrasound. It is often mistaken with chronic pid with tubo-ovarian mass or endometrioma. The lesser incidence of chronic ectopic could be due to its intraoperative resemblance to an endometrioma and failure of histopathological examination of the tissue.

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