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Left ovarian torsion: Prompt surgical detorsion as a key to ovarian salvage in acute abdominal pain: A case report

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Abstract
Ovarian torsion is a gynecological emergency characterized by the partial or complete rotation of the ovarian pedicle, leading to compromised blood flow. Prompt diagnosis and intervention are critical to preserving ovarian function. This report presents the case of a 30 year old woman with sudden onset abdominal pain diagnosed with left ovarian torsion, managed successfully through exploratory laparotomy and ovarian detorsion.

Keywords: Ovarian, detorsion, managed

Introduction
Ovarian torsion accounts for approximately 2.7% of gynecological emergencies and often presents with nonspecific symptoms, making diagnosis challenging [1]. It is most commonly seen in reproductive-aged women, often associated with ovarian cysts or masses that increase the ovary's weight and mobility [2]. Delay in diagnosis can lead to ovarian necrosis, necessitating oophorectomy. The goal of management is prompt surgical intervention to restore blood flow and preserve ovarian function whenever possible [3].

Case Report
A 30-year-old woman, para 1+1 1 alive, presented to the emergency department with sudden-onset, severe lower abdominal pain lasting six hours. The pain was sharp, constant, localized to the left lower quadrant, and associated with nausea but no vomiting. The pain was severe enough to affect her daily activity, doesn't radiate, aggravated by movement with no known relieving factor There was no history of trauma, fever, or urinary or bowel symptoms. There were no abnormal vaginal discharge, dyspareunia or bleeding per vaginum. Her last menstrual period was regular, with no history of similar pain in the past.

Vital Signs
- Temperature: 36.8 °C
- Pulse: 102 bpm
- Blood pressure: 120/75 mmHg
- Respiratory rate: 18 breaths/min

Physical Examination
Abdominal examination revealed tenderness in the left lower quadrant with guarding but no rebound tenderness. Pelvic examination showed cervical motion tenderness, left adnexal tenderness, and a palpable tender mass.

Laboratory Investigations
- Hemoglobin: 12.5 g/dL
- PLT- 291 X 109/L
- White blood cell count: 11,500/mm³
- Beta-hCG: Negative

Imaging
Transvaginal ultrasonography showed an enlarged left ovary (8 × 6 cm) with peripheral displacement of follicles and absent Doppler flow, suggestive of ovarian torsion.

No free fluid was noted in the pelvis.

Management

The patient was counseled regarding the diagnosis of ovarian torsion and the need for urgent surgical intervention. She underwent an emergency exploratory laparotomy under general anesthesia.

Intraoperative Findings

- The left ovary was enlarged, dark bluish in color, and twisted twice around its pedicle.
- No ovarian cysts or masses were identified.
- The fallopian tube was edematous but viable.

Procedure

- Ovarian detorsion was performed gently, restoring normal color within 10 minutes. See Figure 1.
- The ovary was resected but was preserved. See Figure 2.

The patient had an uneventful postoperative recovery and was discharged on the third postoperative day. At follow-up two weeks later, she was asymptomatic, and repeat ultrasonography confirmed normal ovarian blood flow.

Discussion

Ovarian torsion typically presents with acute lower abdominal pain, often mimicking other conditions such as appendicitis or ruptured ovarian cysts [4]. Risk factors include ovarian cysts, hypermobility of the ovary, pregnancy, and assisted reproductive techniques [5]. In this case, no predisposing factor was identified, highlighting that torsion can occur even in normal ovaries.

Doppler ultrasonography is the first-line imaging modality, though normal flow does not rule out torsion due to the dual blood supply of the ovary [6]. Definitive diagnosis is surgical, with laparoscopy preferred in stable patients; however, laparotomy remains an option in resource-limited settings or when rapid access is required [7].

Ovarian detorsion is now the standard of care, even in cases of apparent necrosis, as many ovaries regain function post-detorsion [8]. This case underscores the importance of timely intervention to prevent irreversible damage.

In conclusion, Ovarian torsion is a surgical emergency requiring prompt recognition and intervention. This case demonstrates the successful management of ovarian torsion through exploratory laparotomy and detorsion, leading to ovarian preservation and favorable outcomes.

Fig 1: After detortion

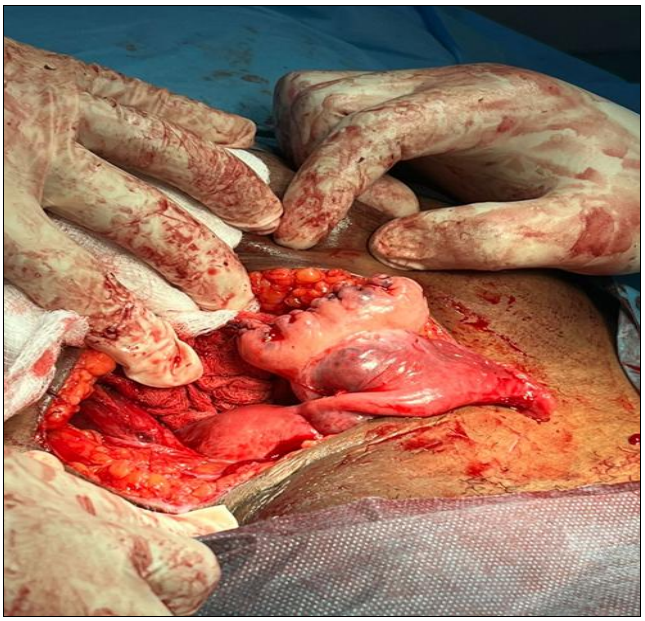

Fig 2: Resected ovary

Conclusion

Ovarian torsion is a surgical emergency that demands prompt diagnosis and intervention to prevent irreversible damage. While risk factors such as ovarian cysts and pregnancy increase the likelihood of torsion, it can also occur in the absence of these factors. Timely imaging, such as Doppler ultrasonography, is essential, but a definitive diagnosis often requires surgical intervention. In stable patients, laparoscopy is the preferred method, though laparotomy may be necessary in some cases. This case highlights the importance of early recognition and detorsion, leading to ovarian preservation and favorable outcomes, emphasizing the need for swift surgical management in suspected cases.

Conflict of Interest

Not available

Financial Support

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