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From "Yellow Flag" to "Red Flag" – Chronic Pain Caused by Chronic Ovarian Torsion – A Case Report

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Background: Ovarian torsion is a gynecological emergency typically presenting with acute abdominal pain, but chronic torsion may manifest as nonspecific chronic pain, posing diagnostic challenges.

Case Report: We report a 36-year-old woman with conversion disorder and a decade-long history of recurrent left lower abdominal pain, backache, and thigh paresthesia. Initial imaging was unremarkable, but during an acute episode, magnetic resonance imaging revealed acute-on-chronic left ovarian torsion with pelvic congestion. Despite intraoperative findings of a viable but congested ovary and elongated fallopian tube, a left oophorectomy was performed due to recurrent torsion and irreversible vascular compromise. Postoperatively, her pain resolved completely.

Conclusions: Our case highlights the importance of considering ovarian torsion in chronic pain syndromes and discusses the balance between ovarian preservation and definitive management in recurrent cases. While ovarian preservation is prioritized, shared decision-making is essential in recurrent cases.

Key words: Low backache, ovarian torsion, meralgia paresthetica, chronic pain

BACKGROUND

Ovarian torsion accounts for 2% to 3% of gynecologic emergencies, with classic symptoms including acute lower abdominal pain, nausea, and an adnexal mass (1). However, chronic or intermittent torsion may present with vague symptoms, such as chronic pelvic pain, backache, or referred neuropathic pain, often leading to delayed diagnosis. Current guidelines emphasize ovarian preservation via detorsion, whenever feasible, as an ischemic appearance intraoperatively does not correlate with long-term ovarian function (2). Here, we present a diagnostically challenging case of chronic ovarian torsion masquerading as a multifocal pain syndrome, with a critical discussion on surgical decision-making in recurrent torsion. Informed and written informed consent has been obtained for publication.

CASE REPORT

A 36-year-old woman with functional neurological symptom disorder (FNSD), on antipsychotics (duloxetine 60 mg once daily) and antidepressants (amitriptyline 25 mg at night), under regular psychiatrist follow-up, was referred to our pain clinic with a decade-long history of left lower abdominal pain (10/10 intensity), dull in character, radiating to the groin, started during pregnancy, and persisting postpartum. The pain was so intense during her subsequent pregnancy, which led her to undergo medical termination. Episodes were accompanied by syncope and sudden falls along the anteromedial aspect accompanying abdominal pain. It

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was also associated with lancinating thigh paresthesia along the anterolateral aspect of left thigh (7-8/10) and chronic backache (4-5/10), which is distinct from the anteromedial pain. The patient's pain was not alleviated with over-the-counter analgesics (paracetamol 500 mg 4 times a day, diclofenac 75 mg prn), and opioids (tramadol 100 mg twice daily). Neurological and spinal examinations yielded no abnormalities except for hyperalgesia in the anterolateral aspect of the left thigh, consistent with meralgia paresthetica. Laboratory results were within normal limits except for an elevated erythrocyte sedimentation rate (ESR)(ESR: 50 mm/h). Magnetic resonance imaging (MRI) of the spine showed desiccated discs at L4-L5 and L5-S1, though these findings were inconsistent with her clinical symptoms. Initial consultations included gynecology (normal ultrasound of abdomen and pelvis), neurology (no radiculopathy), and orthopedics (incidental L4-S1 disc changes). Psychiatric evaluation for syncopal episodes led to a provisional FNSD diagnosis, due to unexplained syncope and pain since the pain remained refractory to oral medications. A pelvic MRI during an acute attack was advised to confirm any organic etiology. It revealed left ovarian torsion with congestion and a tortuous fallopian tube (Fig. 1). A diagnosis of left acute on chronic recurrent ovarian torsion with meralgia paresthetica has been made and was planned for diagnostic laparoscopy.

Intraoperative evaluation revealed complete 360° torsion involving a congested yet viable ovary and an abnormally elongated fallopian tube, with no evidence of cystic formations or neoplastic masses. Although current clinical guidelines prioritize ovarian detorsion, definitive oophorectomy was elected in this case due to recurrent torsion episodes, significant vascular compromise, and the patient's strong preference for permanent resolution after enduring prolonged symptoms. Despite resolution of abdominal pain postoophorectomy, the patient reported persistent lateral femoral cutaneous nerve (LFCN)-mediated neuropathic pain (7/10), which is consistent with LFCN entrapment. Radiofrequency ablation was performed after diagnostic block confirmation due to lack of electrodiagnostic testing at our institute. At one-year follow-up, the patient remained completely asymptomatic.

CONCLUSIONS

Ovarian torsion is an acute gynecological emergency, which presents with severe acute pelvic pain accompanied by nausea and vomiting. Incidence in pregnant women is suspected to be 10% to 22%, especially during

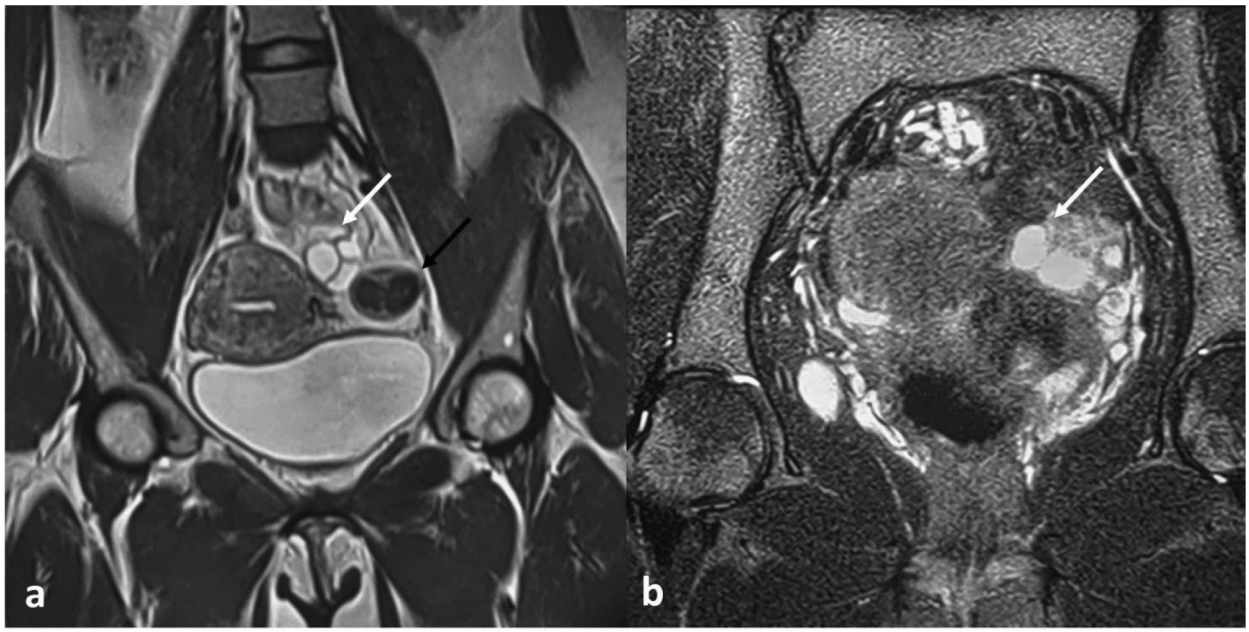

Fig. 1. T2W (a) and T2W fat-suppressed (b) MRI in coronal planes showing pelvic structures, including the dextroverted uterus and bulky left ovary with follicles (straight white arrow). A hemorrhagic cyst (black arrow) is also seen. Note the associated edema and pelvic congestion along with a bulky left ovary. These features indicate the possibility of ovarian torsion. T2W, T2-weighted; MRI, magnetic resonance imaging.

the 10th to 17th week (3). Numerous variables affect the flow into and out of the ovary. Continued arterial perfusion in the setting of blocked outflow leads to ovarian edema with marked ovarian enlargement and further vascular compression. Ovarian ischemia then occurs and can result in ovarian necrosis and local hemorrhage (4).

Our case underscores 3 key points:

- Diagnostic Pitfalls: Chronic ovarian torsion mimics other pain syndromes (e.g., sacroiliac joint dysfunction, meralgia paresthetica, appendicitis, renal calculi, thoracolumbar syndrome of Maigne's, etc), necessitating high suspicion during acute exacerbations (5).
- Surgical Dilemma: While ovarian preservation is the gold standard, recurrent torsion with irreversible vascular changes may justify oophorectomy, as in our patient. The ovary's ischemic appearance intraoperatively (often blue-black) is not a reliable indicator of nonviability; however, our decision considered symptom chronicity and patient preference (6).
- Massive Ovarian Edema: A rare sequela, which occurs due to accumulation of edematous fluid, can masquerade as chronic ovarian torsion, or mimic neoplasm, was not observed here, but should be ruled out in similar cases (7).

In contrast with the existing literature, unlike typical torsion cases managed with detorsion, our patient's atypical chronicity and recurrent ischemia warranted oophorectomy. This aligns with limited data on outcomes in recurrent torsion, where preservation may not prevent symptom recurrence (8). The diagnosis of typical meralgia paresthetica relied on clinical and procedural criteria. The role of electrodiagnostic testing is technically difficult because the results are inconclusive at times and the availability in the limited resource settings (9).

The focus of this case is the atypical presentation of chronic ovarian torsion, which may delay the diagnosis. Chronic ovarian torsion is a diagnostic challenge, particularly in patients with psychosomatic comorbidities. While ovarian preservation is prioritized, shared decision-making is essential in recurrent cases. This case adds to the literature by highlighting the role of MRI in diagnosing intermittent torsion and the nuanced balance between preservation and definitive surgery.

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