



**OVARIAN TORSION IN POST-PARTUM PERIOD – AN UNUSUAL OCCURRENCE**

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**ABSTRACT**

Ovarian torsion is the fifth most common gynecological emergency requiring surgical management. Its occurrence is unusual in postpartum period. The usual presentation of the entity with acute abdomen may be altered in the postpartum period. Early diagnosis and surgical management help in preventing permanent damage to the ovary and other possible complications like thrombophlebitis and peritonitis. We present a case of 27 years old lady who presented with pain and swelling on right side of abdomen on day 7 of vaginal delivery. However, her symptomatology was not consistent with ovarian torsion. On ultrasonography, possibilities of hematoma and Ovarian torsion were kept. Ovarian torsion was confirmed surgically after which salpingo-oophorectomy was done.

**KEYWORDS:** Ovarian torsion, Postpartum.

**INTRODUCTION**

Ovarian torsion refers to rotation of the ovary over the vascular pedicle which consists of the ovarian ligament and the infundibulo-pelvic ligament. Most common predisposing cause of ovarian torsion is a pre-existing ovarian mass. Ovarian torsion in postpartum period is unusual and difficult to diagnose in view of nonspecific objective findings and the fact that symptomatology of ovarian torsion and other postpartum disorders are quite similar. Ovarian torsion may progress to necrosis of the ovary and in cases with delayed surgical intervention may result in thrombophlebitis and peritonitis which can be potentially catastrophic<sup>1,2</sup>. Thus, a high index of suspicion and timely surgical intervention become necessary.

**CASE REPORT**

A 27-year-old female, primigravida presented to the emergency on day 7 of her delivery with complaints of pain and swelling right side of abdomen. No ovarian lesion was mentioned in her antenatal ultrasound records. Her antenatal period was uneventful. She had a spontaneous labor onset at term followed by a vaginal delivery. On day 7th of vaginal delivery, patient had episodes of vomiting with pain in right side of abdomen. The pain got partly settled after medical treatment. However, due to falling hemoglobin and hematocrit levels, she was referred to our tertiary care center. On examination, the patient was conscious and oriented. Her vitals were stable with a pulse rate of 74/min, blood pressure of 104/60 and respiratory rate of 22/min. Her hemoglobin was 5.8gm. On per abdomen examination, mild tenderness was observed in the right lower

quadrants on deep palpation. Due to atypical clinical presentation, torsion was not suspected clinically.

**On ultrasonography:** A large mass was seen in the pelvis which was extending to right side to upper abdomen. Bilateral ovaries were not separately visualized. No color flow was observed on doppler studies (Figure 1).

**CECT abdomen:** revealed a large non-enhancing mass in right hemi-pelvis which was reaching upto right hypochondrium. Few vascular channels were seen within it. Possibilities of ovarian torsion or pelvic hematoma were kept.

**Intraoperative findings:** In our patient, possibilities of pelvic hematoma and ovarian torsion were kept. This was confirmed intraoperatively. There was 300-400 cc of hemoperitoneum with torsion of right ovary (measuring 20x6cm). Uterus and left ovary were normal. Right oophorectomy was done. (Figure 3)

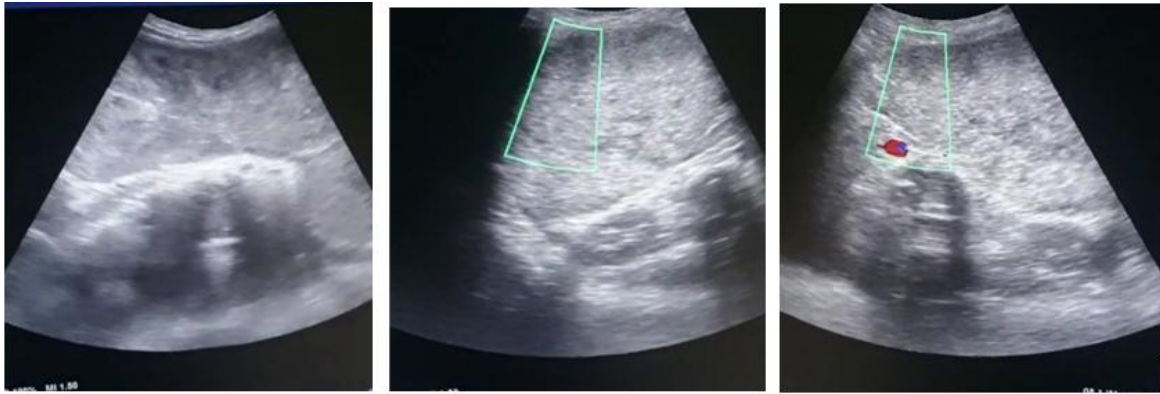


Figure 1: A heterogeneously hyperechoic mass was seen extending from pelvis to right mid abdomen showing no color flow on doppler.

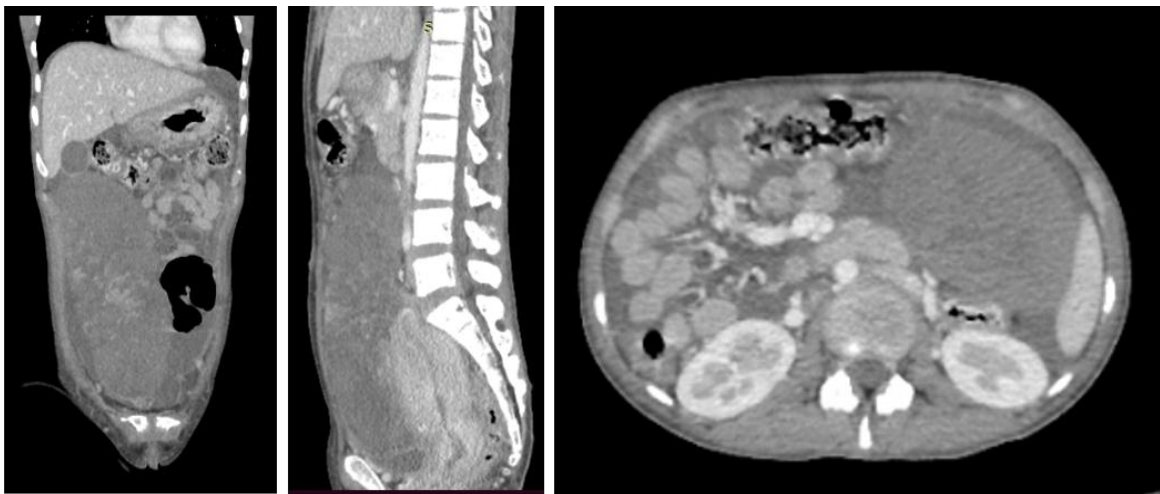


Figure 2: A large non-enhancing mass is seen extending from pelvis to right hypochondrium. The uterus was normal.

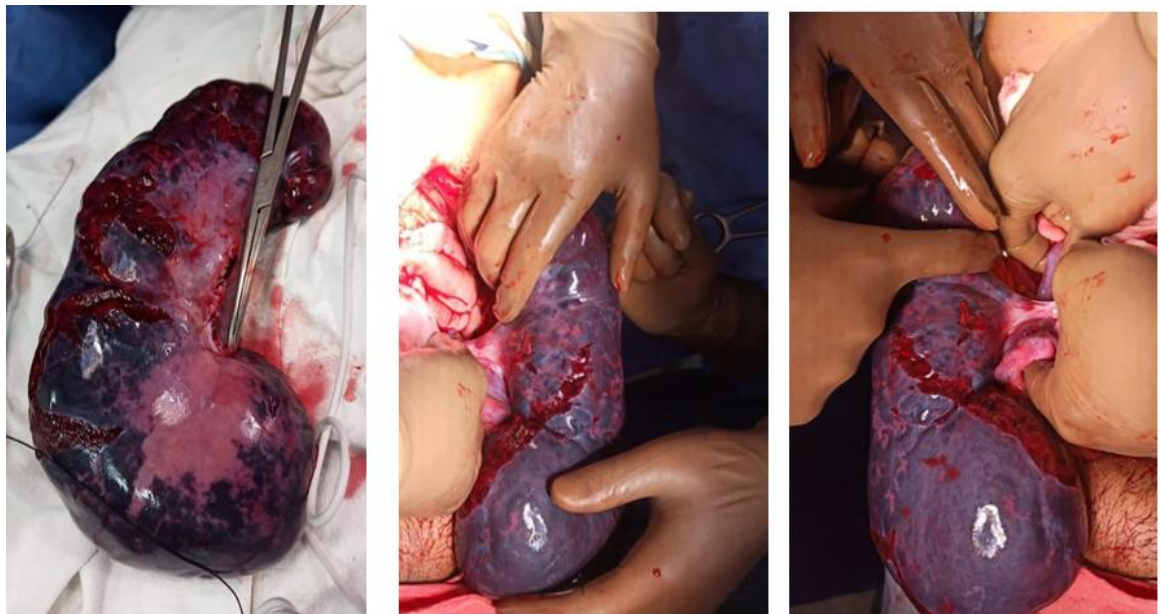


Figure 3: Enlarged congested right ovary.

#### DISCUSSION

Ovarian torsion in the postpartum period is extremely rare with very few cases reported in literature. During

puerperium, involution of the uterus takes place, displacing the adnexa in the process. This increases the likelihood of torsion. Since the clinical features are non-

specific, it poses a diagnostic dilemma, especially in the early postpartum period. Ovarian torsion is a clinical diagnosis. Classic symptomatology of ovarian torsion consists of acute pain abdomen which is localized to the side of torsion with tenderness, guarding on examination. It may be associated with a palpable pelvic mass and vomiting. It may mimic other surgical emergencies like appendicitis, renal colic etc. Ultrasonography is often the first diagnostic modality for lower abdominal pain and it plays an important role in diagnosing ovarian torsion. On ultrasound, ovarian torsion is seen as enlarged ovary measuring >4cm with peripherally arranged follicles. Preexisting ovarian mass causing torsion can be seen. On Doppler, decreased or absent vascularity can be seen.<sup>[1]</sup> The “whirlpool sign” seen on doppler has good sensitivity which is seen as a twisted vascular pedicle with circular vessels<sup>[2,3]</sup> However, normal doppler study doesn't rule out ovarian torsion. In case of unequivocal findings on ultrasound. The sensitivity and specificity of doppler studies in case of ovarian torsion have not been well established.<sup>[4,5]</sup> Magnetic resonance imaging (MRI) may also help in the diagnosis. The preexisting ovarian mass can also be seen in MRI; however, it is a more time consuming and relatively expensive modality. In case of an emergency, Computed Tomography may be helpful in excluding other causes of acute abdomen such as appendicitis, ureteric colic etc. Definite diagnosis requires direct visualization by laparotomy or laparoscopy. Timely intervention in case of ovarian torsion can help in preserving the ovarian function.

## CONCLUSION

Torsion of a normal ovary in postpartum female is a rare but serious complication and may result in view of anatomical changes of puerperium. The differential diagnoses of acute abdomen after delivery vary widely and torsion ovary should be kept as a differential given the fact that early diagnosis and surgical intervention are important so as to prevent permanent ovarian damage. Ultrasonography is the most common modality used for the diagnostic purposes and can be aided by MRI and CT scan for differential diagnosis.

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