

## **Late Presentation of Ovarian Torsion**

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**Ovarian Torsion (OT) is a gynecological emergency that requires quick recognition and prompt treatment to save the ovary in females of reproductive age. When the torsion occurs in the right ovary, the symptoms may be confused with the appendix. In our patient, right sided ovarian torsion was suspected as appendicitis. After 17 hours of delay, instead of removal of the ovary, de-torsion and preservation of the ovary was done despite that part of the ovary and the fallopian tube were ischemic, edematous and appeared necrotic. On follow-up, signs, symptoms and ultrasound suggested that the ovary survived. This case highlights that delayed de-torsion of adnexa has a place in the management of adnexal torsion.**

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Torsion of the ovary or fallopian tube is a gynecological emergency which necessitates early recognition of the condition and prompt surgical intervention. Any part of adnexal structure could be involved in the process, but the success of the management lies in the timely recognition<sup>1</sup>. Adnexal torsion occurs in about 2.7% of women of all ages<sup>2</sup>. As the symptoms of lower abdominal pain are non specific, patients with OT have been diagnosed as urinary tract infection, appendicitis and pelvic lymph adenitis. It was suggested that ultrasonography and Doppler is unreliable and has a limited role; laparoscopy is probably the only investigation with 100% confirmation of the condition<sup>3,4</sup>.

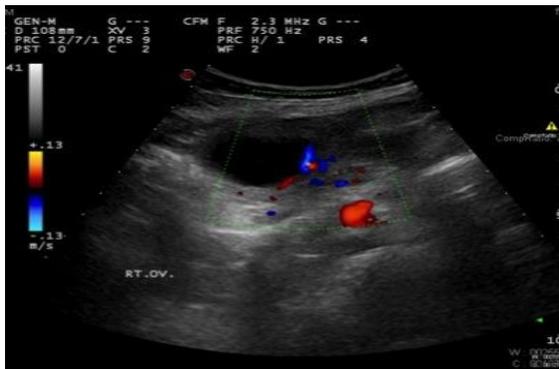
Mage et al, through laparoscopy, successfully attempted de-torsion of the adnexa after making early diagnosis of the torsion in order that the ovary and fallopian tubes could be saved<sup>5</sup>. The normal duration for any organ and soft tissue to survive is 6-8 hours of complete vascular interruption.

The aim of this report is to present a case of de-torsion which was successfully managed after 17 hours delay.

## THE CASE

A twenty-eight-year-old nulliparous woman presented to the emergency room in the luteal phase of her regular 28-day menstrual cycle with vomiting and sudden onset of right iliac fossa pain of 5 hours duration. She had no history of similar complaints. The pain had started abruptly. Her temperature was 36.6°C, pulse was 75/minute and blood pressure was 120/80 mmHg.

Clinical examination showed that the right iliac fossa was tender but without rebound tenderness. A tentative diagnosis of acute appendicitis was made. Her complete blood picture showed only leukocytosis of 11,200/cumm and hemoglobin of 12.5g/dl. During the next 6 hours, the pain continued to increase in intensity but no emesis. She was single and had no gynecology and urinary complaints. Pelvic ultrasound showed the right ovary was enlarged and with multicystic appearance, see figure 1. Doppler ultrasound showed diminished blood supply, see figure 2. The left ovary was normal. Laparoscopy showed that the right ovary was edematous, dusky, measuring 7x4 cm completely torsed at the pedicle with few hemorrhagic spots. The appendix and other intra-abdominal structures appeared normal. De-torsion of the ovary was successful; the right ovary appeared gaining the normal coloration.



**Figure 1: Ultrasound of the Right Ovary which is Enlarged, Edematous and Multiple Areas of Infarction**



**Figure 2: Transabdominal Ultrasound with Color Doppler Shows Interval Regression in Size of the Ovary with Reduced Peripheral Vascularity and Decreased Arterial Flow Around**

The postoperative period was uneventful and she was discharged after normal ultrasound and Doppler. On follow-up, she had no complaints and clinically, there was no abdominal and pelvic tenderness. Ultrasound showed normal looking right ovary size. She was warned that she is at risk of torsion of the adnexa.

## **DISCUSSION**

Our case highlights two issues: (1) ultrasound with or without computerized tomography still has a place in the diagnosis of adnexal torsion and (2) even in delayed diagnosis, an attempt to de-torsion could be performed.

No age limit for adnexal torsion to occur but most commonly it occurs in the 20-30 years age group<sup>6</sup>. The clinical diagnosis of ovarian torsion still remains difficult because the signs and symptoms are similar and confusing with acute appendicitis, renal colic and in married women with an ectopic pregnancy. We believe that in women of reproductive age with lower abdominal pain, the diagnosis of adnexal torsion should be ruled out early.

In our patient, ectopic pregnancy was not a differential diagnosis as she was single and other parameters of renal cause of lower abdominal pain were negative. Despite that, the ultrasound showing abnormal findings of over 90% in patients with adnexal torsion, ultrasound was delayed in our patient for over 12 hours. Webb et al reported that the appearance of ultrasound depends on the duration of the ischemia of the adnexa due to torsion<sup>6,7</sup>. Ultrasound Color Doppler Sonography (CDS) was used to assess ovarian vascular supply and to evaluate ovarian viability. An ultrasound should be done for females with acute lower abdominal pain to rule out adnexal torsion before other conditions are considered.

The historical treatment of adnexal torsion is removal of the necrotic appearing ovary with the affected fallopian tube. Studies reported that untwisting of the adnexa should be an initial option despite the dusky looking ovary. The ovarian salvage is reported to be less than 16%<sup>8,9</sup>. Recently, Parelkar et al reported that de-torsion was successful in 13 cases<sup>10</sup>.

## **CONCLUSION**

**Our case highlights that early interventions with laparoscopy de-torsion could make the important difference between survival of the ovary and loss which is of great importance to the fertility of young women.**

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