Sequential Bilateral Torsion of a Normal Ovary at 31 Weeks of Gestation and 12 Months Following Delivery

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ABSTRACT
Torsion of a normal ovary should be considered in the differential diagnosis of acute abdominal pain in the third trimester. Accurate diagnosis and early surgical intervention is essential to avoid fetal and maternal morbidity and mortality. We herein report a case of torsion of a normal ovary alone at 31 weeks of gestation following a spontaneous conception and again torsion of right normal ovary 14 months later. We had to do oophorectomy in both instances since the ovaries were gangrenous.

Keywords: Normal ovary, torsion, third trimester, oophorectomy

Adnexal torsion during pregnancy is a rare condition, more common in the first and early second trimesters and exceptional during the third trimester. Torsion of normal ovary alone is exceptional but torsion of the normal fallopian tube with or without ovary is not rare. Preoperative diagnosis based on symptoms, physical findings or imaging modalities during pregnancy is often difficult. Since this condition is uncommon in third trimester, a high index of suspicion is required to diagnose.

Delay in surgical intervention can lead to irreversible damage to the ovary. Torsion is most frequently unilateral and commonly involves the right side. The first case of bilateral adnexal torsion reported was by Warnek in 1895. Since then few cases have been described. The first case of bilateral asynchronous torsion was reported by Baron in 1934. Mostly all these were in children and adolescents where the adnexa is hypermobile.

CASE REPORT
A 30-year-old woman third gravida with previous two abortions reported at 31 weeks with a history of severe abdominal pain on the left side since two days. There was no history of fever, vomiting, bladder or bowel disturbances, bleeding or leaking per vagina. Patient was treated as urinary tract infection (UTI) by a local doctor. There was no improvement, so she came to our hospital. She had been married for 12 years and investigated for infertility for which she had taken treatment irregularly. The present conception was spontaneous after stopping all medications six months back. She had regular antenatal care (ANC); the pregnancy was uneventful so far.

Her vital signs were stable. Systemic examination was normal. Per abdominal examination revealed uterus of 32 weeks size, relaxed, head in the lower pole, fetal heart rate (FHR) regular; severe tenderness was present in the left lumber region. Transabdominal USG showed single intrauterine gestation of 31-32 weeks, partial torsion of left ovary 8 x 5 cm in size with increased stromal echogenicity and multiple small peripheral cystic spaces. No was detectable color/power flow on Doppler. Routine investigations like Hb, TLC, DLC, ESR and urine analysis were normal. Since, the patient did not give consent for immediate surgery, laparotomy and left sided oophorectomy was done on next day. Intraoperative findings were enlarged left ovary 7 x 4 cm,
twisted thrice in its pedicle and had gangrenous change (Figs. 1A and 1B). Postoperative period was uneventful. Histopathological report showed ovarian cortex with areas of hemorrhage within, suggestive of ovarian torsion. Pregnancy continued till term. She delivered vaginally a live male baby of weight 3 kg by vaccum.

Patient had similar pain on right side of abdomen 10 months after the first episode. USG abdomen showed right hemorrhagic cyst of 4 x 3 cm with no torsion. Patient was advised oral contraceptive (OC) pills for two months.

Again the patient presented with sudden-onset of severe pain in the right side of abdomen two months later. USG and Doppler showed torsion of right ovary. Laparotomy was done and right oophorectomy was done since the ovary had twisted twice and undergone gangrenous change (Fig. 2). Histopathology confirmed the torsion of normal ovary. Patient was advised hormone replacement therapy.

DISCUSSION

Adnexal torsion is an uncommon cause of surgical emergency. Most of the cases are secondary to adnexal pathology or develop as a complication of ovarian hyperstimulation syndrome and ovarian stimulation for in vitro fertilization (IVF). The symptoms are nonspecific and can be confused with other acute abdominal conditions such as appendicitis, ureteral or bowel obstruction. If the diagnosis is delayed hemorrhagic infarction of the involved ovary may be followed by infection leading to peritonitis and in some cases, death. Combination of magnetic resonance imaging (MRI) and color Doppler helps in accurate diagnosis. Therapy of adnexal torsion remains controversial. Although laparoscopic approach combined with simple detorsion has been described in the third trimester, laparotomy and salpingo-oophorectomy may sometimes be necessary. It depends upon the degree of ischemia and necrosis. Detorsion of ovary, bi-sections of the necrotic tissue and pexis of any residual ovarian tissue without

Figure 1A. Left ovary.

Figure 1B. Cut section of the left ovary.

Figure 2. Right ovary.
Oophorectomy should be performed in children and young adults to conserve ovaries.

**CONCLUSION**

Normal ovary torsion should be considered in the differential diagnosis of acute abdominal pain in the third trimester. Accurate diagnosis and early surgical intervention is essential to avoid fetal and maternal morbidity and mortality. We had to do oophorectomy in both instances since the ovaries were gangrenous.

**SUGGESTED READING**


How can Assisted Reproductive Techniques Help Couples Diagnosed with Endometriosis?

According to western figures, couples diagnosed with endometriosis have success rates with assisted reproductive technology (ART) procedures such as *in vitro* fertilization and embryo transfer (IVF–ET) that are similar to those for couples with other causes of infertility. Success rates for ART procedures vary greatly depending on a woman’s age. Nationally, live birth rates for IVF-ET are approximately 30-35% for women under age 35, 25% from ages 35 to 37, 15–20% from ages 38 to 40, and about 10% between 41 and 42. IVF-ET is the most effective treatment for moderate or severe endometriosis, particularly if surgery fails to restore fertility.

What is Hyperprolactinemia?

Hyperprolactinemia is a condition in which too much prolactin is present in the blood of women who are not pregnant and in men. In women, this causes a decline in the body’s production of progesterone after ovulation which, in turn, can lead to irregular ovulation and infrequent menstruation, cause you to stop menstruating altogether, or cause your breasts to start producing milk, a condition called galactorrhea. Men also can experience galactorrhea. High prolactin levels in men can also lead to impotence, reduced libido and infertility.