Simultaneous Bilateral Torsion and Entanglement of the Adnexa

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ABSTRACT

We report the first case of bilateral adnexal torsion complicated by concomitant entanglement of both adnexas. The clinical presenting symptoms and signs were similar to those described in unilateral adnexal torsion without adnexal entanglement. The final diagnosis was established by diagnostic laparoscopy, and aspiration of one of the ovarian cysts was required to disentangle the adnexas.

Key Words: Adnexal entanglement, Bilateral adnexal torsion, Laparoscopic detorsion.

INTRODUCTION

Torsion of the vascular pedicle of an ovary, fallopian tube, or paratubal cyst or of a fallopian tube alone results in ischemia and rapid onset of acute pelvic pain. Accurate diagnosis is important to preserve ovarian function and prevent adverse sequelae. The clinical presentation of ovarian torsion is non-specific, and its recognition and differentiation from other pathologies pose a diagnostic challenge. Ovarian torsion has been described in all age groups from the fetal/neonatal period to elderly women, with 80% of cases occurring in females under the age of 50 years. The 2 most common presenting features are lower abdominal pain (83%) and an adnexal mass (72%). The diagnosis should be considered in women with lower abdominal pain, especially in the setting of ovarian cyst/mass and diminished or absent blood flow in the ovarian vessels, but the definitive diagnosis of ovarian torsion is based on surgical findings.

Bilateral occurrence of adnexal torsion is very rare. We report an even more unusual case of bilateral torsion of the adnexa complicated by simultaneous bilateral adnexal entanglement. To the best of our knowledge, this is the first case of its kind to be reported in the literature.

CASE REPORT

A 43-year-old female, para 2, was admitted to the gynecologic emergency department with the complaint of severe lower abdominal pain lasting for 2 days. The pain was cramping and not accompanied by nausea or vomiting. She had no bowel or urinary complaints. Her last menstrual period had started 14 days before. She did not use any contraceptives. She had no family history of gynecologic malignancies. On examination, the patient was afebrile, her pulse rate was 107/min regular, and her blood pressure was 123/61 mm Hg. The abdominal examination was normal except for a slight tenderness on the right lower abdomen. Speculum examination revealed no abnormality, and bimanual vaginal examination revealed that the uterus was normal in size, diverted to the right, mobile, and not tender. A smooth non-tender ~10-cm cystic mass was palpated separate from the uterus in the Douglas pouch. On ultrasonography, the uterus appeared to be normal in size and diverted to the right, and a multilocular cystic mass (11x8 cm) was...
seen on the left side of the uterus. The ovaries could not be visualized separately because of the extent of their entanglement with one another. No free fluid was present in the Douglas pouch. The hemoglobin count was 12.8 g/dL, the total leukocyte count was 8900/mL and βHCG in the urine was negative.

The patient was diagnosed with ovarian torsion, and a laparoscopy was scheduled. At surgery, both adnexas were seen to be entangled with each other (Figure 1). The right ovary was cystic and regular and ~5 cm in diameter. The left ovary was also enlarged (~10 cm in diameter) and cystic, and twisted twice around the ovarian proprii ligament. Each ovary was displaced to the opposite side of the pelvis as a result of these entanglements. Both fallopian tubes appeared normal. Neither adnexa was ischemic and each appeared to be of normal color. Other intraoperative findings included omental adhesions to the pelvic wall.

To free both adnexas, we had to first fenestrate the right ovarian cyst and then use a grasper to return each adnexa to its correct anatomic position. The patient underwent left salpingo-oophorectomy and biopsy of the collapsed right ovarian cyst. The postoperative period was uneventful. The histopathological examination revealed a mucinous cyst adenoma in the left ovary and a simple cyst in the right ovary.

**DISCUSSION**

We conducted a review of the literature by searching the World Wide Web for published reports on “bilateral adnexal torsion,” “complex adnexal torsion,” “synchronous bilateral adnexal torsion,” and “adnexal entanglement.” We found 2 case reports on increased risk for bilateral adnexal torsion after clomiphene citrate or other ovulation-inducing therapy,3,4 but the bilateral torsions were not entangled as they were in our patient. An earlier review of the 15 cases of bilateral adnexal torsion reported in the world literature5 revealed that fever (82%), nausea or vomiting, or both together (73%), and abdominal pain (93%) were the most common presenting symptoms. Previous recurrent attacks of abdominal pain had occurred in 53% of patients and that may be the only finding that is directly suggestive of this entity. The adnexas were histologically normal in 50% of the specimens, and evidence existed of tubal infection (hydro-salpinx and pyosalpinx) in several cases. The diagnosis was suspected preoperatively in only 38% of the cases.

We describe a unique case of simultaneous torsion and entanglement of bilateral adnexas unassociated with prior ovulation induction treatment. One possible explanation for this occurrence is elongation of both adnexal ligaments. Elongation of ovarian proprii ligament or infundibulopelvic ligament could be attributed to the collagen type or connective tissue strength of the tissue. Another likely cause in our patient is that both her ovaries were cystic and enlarged, and their being enlarged could explain the bilateral adnexal torsion. The additional finding of entanglement makes this a very unique case.

Although the usual presentation of adnexal torsion is unilateral pelvic pain, we recommend that the diagnosis of concomitant bilateral adnexal torsion and entanglement be considered when the presentation is diffuse, severe, lower abdominal pain.

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