Torsion of the left fallopian tube without ovarian involvement in a 47-year-old woman: A case report

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Abstract

Isolated torsion of the fallopian tube is an unusual finding in a female patient presenting with acute lower abdominal pain. Left tubal torsion is considered to be a particularly rare condition. The patient presented with lower abdominal pain due to torsion of the left hydrosalpinx with no ovarian involvement. The patient underwent laparotomy and a left salpingectomy. The follow-up was uneventful.

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Hydrosalpinx

1. Introduction

Isolated fallopian tube torsion was first reported by Bland-Sutton in 1890 [1]. It is a rare gynecological cause of acute lower abdominal pain, with an incidence of one in 1.500000 [2]. It is thought that this condition occurs more often with the right tube and several theories have been advanced to explain this [3]. This condition lacks specific clinical characteristics and so diagnosis is a challenge. Laparoscopy can facilitate both diagnosis and treatment. Here, however, we present a case of isolated left tubal torsion that was correctly suspected clinically and treated with laparotomy because the equipment required for laparoscopy was not available.

2. Case report

A 47-year-old woman (nulliparous, gravida 0) presented to the accident and emergency department with severe abdominal pain that had lasted for some hours. She had regular menstruation and her last period was 10 days previously. She reported nausea and vomiting. She denied any urinary symptoms.

Physical examination identified severe tenderness in the hypogastric area and left iliac fossa. Her temperature was normal. The patient declined bimanual gynecological examination because she thought she would not be able to tolerate the pain. A transvaginal ultrasound scan revealed a cystic lesion (70x30mm) within the left tube (Fig. 1). A color Doppler sonogram showed reduced blood flow in the left tube (Fig. 2). No other abnormalities were identified. Blood biochemistry results revealed mild leukocytosis, WBC 12 × 10^3/ml, NEUT 73.5% and a marginally elevated CRP. A urine test was normal and a pregnancy test was negative. Tumor markers Ca-125 and Ca19-9 were negative. Abdominal X-ray was normal.

The patient was admitted to the gynecology ward and intravenous antibiotic treatment was instituted. However, on the second day of hospitalization her symptoms worsened and it was decided that she should undergo urgent laparotomy. Surgical findings revealed a large necrotic left tube which appeared twisted at the cornual end. There was no ipsilateral ovarian involvement (Fig. 3). The uterus, right adnexa and rest of the peritoneal cavity were investigated but no abnormalities were detected. Hence a left salpingectomy was performed. The specimen (Fig. 4) was sent for histological examination. The postoperative course was uneventful and the follow-up was normal. The histopathology report confirmed the preoperative diagnosis of isolated left tubal torsion. (See Fig. 4.)

3. Discussion

Isolated fallopian tube torsion is a rare cause of abdominal pain. It occurs most often in ovulating women with predisposing factors but it has been reported in females of all ages, and even in pregnancy [4-6]. However, it is more frequent in women of reproductive age, because almost all of the risk factors are rare before menarche or during menopause [7].

The numerous etiologic factors can be classified as either internal (i.e. within the tube) or external. Internal factors include hydrosalpinx, hematosalpinx, fallopian tube tumors, tubal ligation, pelvic inflammatory disease and other tubal abnormalities. The latter category includes adhesions, pelvic masses, pregnancy, venous congestion, and medication.
Although the clinical characteristics are not exclusive to fallopian tube torsion, the most common symptom is lower abdominal pain, most frequently of sudden onset and accompanied by nausea, vomiting or urinary urgency [7]. Laboratory values are not diagnostic [8]. Bimanual pelvic examination can reveal cervical motion tenderness or even a tender adnexal mass. However, the patient declined that option. In general, the symptoms are non-specific and differential diagnosis includes appendicitis, rupture of ovarian cyst, ovarian torsion, endometriosis, ectopic pregnancy and pelvic inflammatory disease and urinary conditions.

Harmon et al. [9] suggested that isolated torsion of the fallopian tube predominantly appears on the right side, possibly because of partial immobilization of the left tube by its proximity to the sigmoid mesentery, as well as the lesser venous flow on the right side. Many authors also suggest that there is a greater tendency for patients with right-sided lower abdominal pain to be operated upon to exclude appendicitis [10]. However, Wong et al. [11] reported series of six cases in which isolated tubal torsion occurred on the left side in five patients.

Imaging signs are not specific and vary significantly. Although a normal salpinx is not visible on ultrasonography, tubal abnormalities can be detected. In isolated torsion of the fallopian tube, transvaginal ultrasonography scan can reveal a dilated salpinx, an echogenic mass, thickened tubal walls, and free fluid in the Douglas space or around the tube. Color Doppler ultrasonography can show disrupted blood flow. However, it cannot diagnose or exclude the presence of torsion [12]. CT or MRI can be useful for diagnosis, especially to exclude other abnormalities and to confirm an ipsilateral normal ovary.

Fertility preservation can be a key issue. However, conservation of the tube requires timely intervention and laparoscopic surgery. Many authors suggest untwisting of the tube as long as there are no signs of irreversible damage [12]. In the present case laparoscopy could not be performed (due to lack of the requisite facilities) and the tube was found to be ischemic during the operation. However, there is no doubt that laparoscopy is currently the most specific diagnostic tool for evaluating torsion, and laparoscopic adnexal detorsion is the treatment of choice [13,14].

In conclusion, isolated torsion of the fallopian tube remains a tricky diagnosis. Laparoscopy is the gold standard for management and preservation of the tube is generally desirable. We present a case in which correct diagnosis and appropriate treatment of left isolated tubal torsion were achieved with laparotomy and salpingectomy, because laparoscopy was not available.

Contributors

All authors contributed equally to the preparation of this case report and saw and approved the final manuscript.

Conflict of interest

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Patient consent

Obtained.

Provenance and peer review

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