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A rare case; isolated tubal torsion

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ABSTRACT

Although isolated torsion of the tuba is very rare, it should be kept in mind especially in women of reproductive age who present with abdominal pain, as it causes fertility problems especially in late diagnosed cases. Pre-operative diagnosis is difficult because there is no pathognomonic symptom or specific clinical, imaging and laboratory findings. Therefore, it should be considered in reproductive age women presenting with undiagnosed abdominal pain.

Key Words: Tubal torsion, fertility, undiagnosed abdominal pain

Introduction

Tubal torsion, which is a very rare cause of gynecological emergency, is observed at a rate of approximately 1/1.500.000 (1,2). It was first described by Bland-Sutton in 1890 (3). The majority of the cases were women in the reproductive period. No diagnostic symptoms, clinical signs, laboratory markers, or pathognomonic radiological features were identified in these cases (4). Its etiology is examined in two groups as intrinsic and extrinsic causes (5). Intrinsic causes include congenital anomalies of the tuba, hydrosalpinx, hematosalpinx, tubal neoplasms, tubal ligation or tubal specific factors such as tubal surgical interventions; whereas ovarian and paratubal masses, pregnancy, trauma, adhesions, pelvic congestion and sudden body movements are extrinsic causes. Although tubal torsion is rare, early diagnosis is important. Late diagnosis can lead to necrosis and irreversible damage. Although the function of the detorsion tuba is debatable, preventive surgery is recommended unless the tuba is completely necrotic (6). In this case report, we discuss a case of isolated tubal torsion operated at our clinic.

Case Report

A 32-year-old patient with 2 normal vaginal deliveries and an abortion was admitted to an external health care facility and followed up for 2 days. She was then referred our hospital because of sudden onset abdominal pain along with nausea and vomiting. She stated that the pain started suddenly, became stronger and nausea and vomiting had been added for the last 6 hours. In the examination of the patient, there was defense and rebound in the right lower quadrant. Her vital signs were normal. Laboratory tests revealed wbc 16,000, hb 12.5, hct 36.1. Other laboratory parameters were within normal ranges. An anechoic cystic mass of approximately 6 cm was observed in the right adnexal area in the transvaginal USG. Bilateral ovaries were clear and there was minimal free fluid in the abdomen. Doppler USG showed blood flow around the cystic mass, but no blood flow through the mass. The abdominal USG was performed with a prediagnosis of acute abdomen, the result of the abdominal usg was reported as ananechoic cystic mass of approximately 5.5 cm in size adjacent to the right ovary. Diagnostic and operative laparoscopy was planned with the prediagnosis of acute abdomen and adnexal torsion. During the operation, uterine left tuba and ovary were normal. It was observed that the right tuba was twisted by turning 2 times around itself and had a necrotic mass approximately 6-7 cm in size (Figure 1,2). Firstly, the tubal torsion was detorsion and the arterial flow was expected to return again. Hemorrhagic necrosis was reported as a severe acute inflammatory reaction consistent with tubal torsion. The patient was discharged on the first postoperative day without any postoperative complications.

Discussion

Although isolated tubal torsion is very rare, it can be seen in premenarchal, postmenopausal and gestational periods as well as in women of reproductive age, as in our case (7,8,9). Isolated tubal torsion has no specific clinical, laboratory and imaging findings (10). It is most commonly presented with lower abdominal pain, which may be blunt, continuous, paroxysmal

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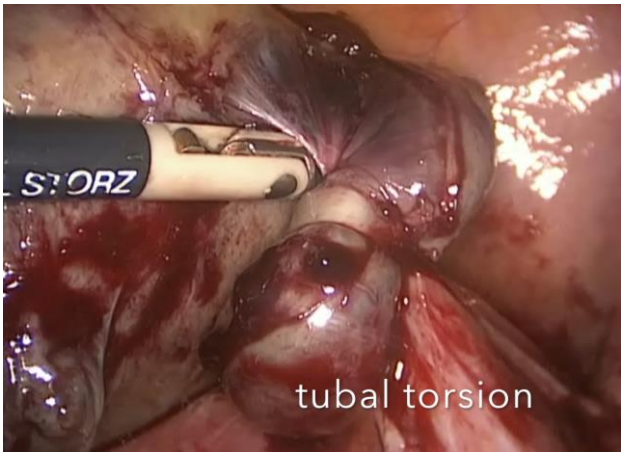

Fig. 1. Spontaneous tubal torsion twice

and may spread to the leg or hip (11). Current findings may be accompanied by nausea, vomiting and peritoneal irritation findings (12). Although USG is not very helpful in differential diagnosis, it is reported that the presence of diastolic reverse flow and high impedance waveforms in the affected tuba is diagnostic in color Doppler USG examination (13). These specific doppler findings may not be seen in cases of delayed and possibly absence of blood circulatory. Normal doppler USG findings do not rule out the definition of torsion (14). While the diagnosis can be made only in 20% of preoperative cases, the definitive diagnosis usually requires laparoscopy or laparotomy (7). In most of the cases published in the literature, torsion was seen in the right tuba, and it was suggested that the left tuba was close to the sigmoid colon and was less mobile (15). Because of the pain pattern and other symptoms, ovarian torsion, ovarian cyst rupture, appendicitis, ectopic pregnancy rupture, pelvic inflammatory disease, intestinal surgical pathologies, urolithiasis and acute cystitis are considered in the differential diagnosis (16). Pelvic-inflammatory disease was not considered with the present findings and symptoms. Isolated tubal torsion was observed in the right tuba. The blood supply of the ovary is not expected due to both uterine and ovarian arteries. In our case, both ovaries were found to be normal (9). In torsion cases, when the torsion is fixed before the onset of gangrenous changes, the tubas can be preserved. Therefore, early diagnosis is important. In the study of Mazouni et al., it was emphasized that more than 10 hours between the onset of pain and surgery increased the risk of tubal necrosis (17). In some sources, detorsion is recommended, even if the appearance is necrotic. If necrotic tissue is present in some sources, it is recommended to remove the existing necrotic tissue as detorsion of the tuba may lead to thrombosis (6,18). There is not enough information about the effect of tubal function and fertility after detorsion

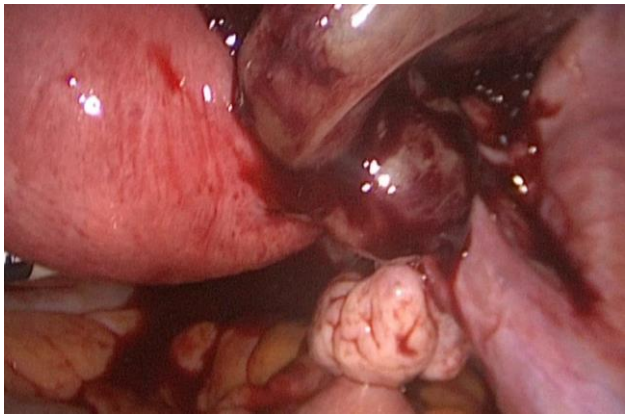

Fig. 2. Spontaneous tubal torsion, chronic inflammation

cases. With the available information, salpingectomy is the recommended treatment in cases with delayed gangrenous changes, whereas detorsion is recommended in cases without gangrenous changes. Therefore, early diagnosis and treatment is important for the protection of tuba especially in reproductive-age women. Although it is a very rare condition, isolated tubal torsion should be considered in the differential diagnosis in acute onset abdominal pain.

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