



ISOLATED TORSION OF HYDROSALPINX: A RARE ENTITY

Gynaecology

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ABSTRACT

Among various causes of acute lower abdominal pain in women, isolated fallopian tube torsion is very rare. Because the clinical features and imaging findings are non specific, the correct diagnosis can rarely be made before an operation. The sonographic findings of normal appearing ovaries, a dilated tube with thickened, echogenic walls, and internal debris should raise the suspicion of torsed tube. An early diagnosis is important for the preservation of the tubal function and future fertility. We present a case of isolated fallopian tube torsion in a woman who presented as acute abdominal pain

KEYWORDS

Introduction

Isolated torsion of the Fallopian tube is an uncommon cause of acute lower abdominal pain. The incidence reported in literature is around 1 in 1.5 million women [1]. Although it has been reported in all the age groups but is most commonly found in reproductive age women [2]. The exact cause of fallopian tube torsion is unknown, but various theories have been postulated [3-5]. Being rare the entity is most likely to be misdiagnosed and thus delay in the treatment may cause irreversible damage to fallopian tube. We hereby report a case of isolated torsion of hydrosalpinx in a multiparous lady who presented with acute abdomen.

Case report

A 33year-old multiparous female presented to our institution with sudden onset of right sided abdominal pain. The pain was very severe, colicky and radiating to groin and thigh. Her menstrual cycles were regular with average flow. She was tubectomized by mini laparotomy 6 years ago. No other significant medical or surgical history was present. Her vitals were stable with slight tachycardia. On per abdomen examination mild tenderness was present in the right iliac fossa. Bimanual pelvic examination revealed normal sized uterus with tender cystic mass in right fornix approximately of size 4x5cm. Urine pregnancy test was negative. An urgent transvaginal ultrasound was done which showed a large multiseptated cystic lesions on right side of size approximately $5.2 \times 4.6 \times 3.5$ cm. The right ovary could not be seen separately from the cystic mass. The uterus and left ovary were normal. A provisional diagnosis of torsion ovarian cyst was made and patient was taken up for emergency laparoscopic exploration after baseline workup.

Intra operatively, right hydrosalpinx with torsion (3 twists of fallopian tube) was observed (Fig. 1).

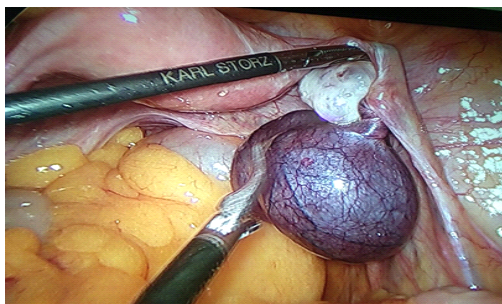


Fig. 1: Intraoperative photograph showing torsion of hydrosalpinx

The surface of tube was bluish in colour due to interruption of blood supply. Right ovary and rest of pelvic structures were normal. A laparoscopic right salpingectomy was performed. She was discharged on postoperative day 2 in stable condition.

Discussion

The most common gynaecological causes of acute lower abdominal pain include twisted ovarian cyst, ruptured corpus luteum cyst, pelvic inflammatory disease, and ectopic pregnancy. The exact cause of torsion is unknown and various theories have been postulated [3-5]. Various causes for tubal torsion can be classified as intrinsic and extrinsic. Intrinsic causes include anatomical abnormalities tubes like long mesosalpinx, venous congestion in the mesosalpinx, abnormal peristalsis, hypermobility of tube and hydatid cyst of Morgagni. Extrinsic or acquired causes include trauma, previous surgery or disease (tubal ligation, PID); sudden body position changes (Sellheim theory). Hydrosalpinx is the most common abnormality associated with fallopian tube torsion [6]. Hydrosalpinx may be unilateral or bilateral. In our case, the possible cause of the tubal torsion with the hydrosalpinx could be a prior tubal ligation and associated pelvic adhesions. The torsion of the fallopian tube is usually unilateral and it occurs most commonly on the right side. Various theories for increased incidence on right side postulates that sigmoid colon on the left side prevents the adnexal movement and thus torsion. One more reason could be because the right sided cases are more likely to be operated to rule out appendicitis [7,8]. Ultrasound is the standard imaging modality for evaluation of adnexal masses. But its utility in the diagnosis of a twisted fallopian tube is limited. An ultrasound image of hydrosalpinx may appear as an elongated, convoluted cystic mass, tapering near the uterine cornua, with the ipsilateral ovary seen separately from the mass [8]. A "beaked" appearance at the site of torsion has also been described [9]. Doppler evaluation could be helpful with this diagnosis if high impedance or absence of flow in a tubular structure is noted [8]. Furthermore, contrast-enhanced CT or MRI examination may be useful for the diagnosis of isolated fallopian tube torsion if the findings reveal hydrosalpinx with a lack of contrast enhancement and an ipsilateral normal ovary [10].

A preoperative definitive diagnosis is difficult, because of the non specific clinical and imaging findings. Delay in the diagnosis and treatment could lead to complications like tubal necrosis and gangrenous transformation, leading to superinfection and peritonitis. Local spread of infection can also cause irreversible damage to the ipsilateral ovary [3]. Isolated tubal torsion can be managed with either de-torsion or simple salpingectomy. Laparoscopic approach is ideal because it could be both diagnostic and operative. Prompt consideration of this diagnosis and surgical detorsion may allow conservative management with untwisting and prevent irreversible

damage to the tube [3,5]. However since the diagnosis is usually delayed, irreversible damage to the tube often requires occurred salpingectomy.

Conclusion

Although rare, but isolated torsion of the fallopian tube should be considered as one of the differential diagnosis of acute abdominal pain especially when all the surgical causes are excluded. It is very important to suspect and recognize the possibility of this diagnosis in the setting of hydrosalpinx with a sonographically normal ovary in a patient with acute pain. Delay in diagnosis and treatment may result in permanent damage to the tube and ovary. Laparoscopy is gold standard for the management of this condition.

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