Torsion of a Fallopian tube

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Isolated unilateral torsion of a fallopian tube is an infrequent but significant cause of acute lower abdominal pain in a female of reproductive age. We present a literature review and a case of a 41 yrs old lady who presented with sudden onset right sided lower abdominal pain radiating to right thigh. Clinical examination revealed tenderness in right lower abdomen and tender right adnexal mass was noted on vaginal examination.

Abstract

Isolated unilateral torsion of a fallopian tube is an infrequent but significant cause of acute lower abdominal pain in a female of reproductive age. We present a literature review and a case of a 41 yrs old lady who presented with sudden onset right sided lower abdominal pain radiating to right thigh. Clinical examination revealed tenderness in right lower abdomen and tender right adnexal mass was noted on vaginal examination. Trans-vaginal scan revealed an elongated, multiloculated right adnexal mass and a normal left ovary. No free fluid or ascites noted. Torsion of right hydrosalpinx was suspected and emergency laparoscopy was performed which confirmed the diagnosis and right salpingectomy was carried out. Isolated torsion of a fallopian tube should be considered in the differential diagnosis of lower abdominal pain in any female of reproductive age, particularly when they have a history of tubal sterilisation, oophorectomy and/or pelvic adhesive disease.

Introduction

Isolated torsion of the fallopian tube was first reported in 1890 by Bland-Sutton. Since then torsion of normal as well as abnormal tube has been reported in the literature. (Ref 1-7) The overall incident has been reported as 1 in 1.5 million women. (Hanson et al 1970) Preoperative diagnosis was made in less than 20% of reported cases (Ref 8) and laparoscopy remains the gold standard for diagnosis and treatment.

Case report

A 41 yrs old Para 2 lady presented on day 21 of her cycle with a 24 hours history of sudden onset right sided lower abdominal pain which radiates to right thigh. The pain did not respond to opioid analgesia. Of note in her medical history was the fact that she had undergone a right oophorectomy 7 years ago and laparoscopic sterilisation using filches clips, 5 years prior to the admission. On examination she was tender in the right lower quadrant and there were no signs of peritonism. Bimanual pelvic examination revealed tenderness in right adnexa. Her urine HCG was negative, white cell count was 11.1 and CRP was < 5. Transvaginal scan showed an elongated, multiloculated mass measuring 7.8cm x 5.26cm in the right adnexal region.

Fig:1 Transvaginal ultrasound image of
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There was no ascites or free fluid and the left ovary appeared normal. A torsion of a right hydrosalpinx was suspected and an emergency laparoscopy was performed. This confirmed a torsion of a right sided hydrosalpinx with fulcrum of torsion being the filches clip. A right salpingectomy was performed and post-op course was uneventful. She was discharged home the next morning.

Discussion
Isolated tubal torsion is a rare but a significant cause of acute lower abdominal pain in female. The diagnosis is infrequently made preoperatively due to lack of pathognomonic symptoms and clinical findings. Although the exact cause for tubal torsion is unknown, torsion of an intact, healthy tube is unusual. Youssef et al (1962) classified factors that could influence the occurrence of tubal torsion into two groups: intrinsic and extrinsic.

Intrinsic causes include congenital abnormalities (excessive length of tube or spiral course), hydrosalpinx, haematosalpinx, tubal neoplasm and prior surgery particularly tubal sterilization. Ovarian and paratubal masses, pregnancy, adhesions, pelvic congestion and sudden body movements are listed as extrinsic causes.

All these factors contribute to the development of tubal torsion by providing a point of reference (fulcrum) around which the tube can twist. Our patient had previously undergone tubal sterilisation using filchie clips. Clinical presentation: Symptoms of tubal torsion include the sudden onset of unilateral lower abdominal pain radiating to the groin or anterior / lateral aspect of thigh. It is frequently associated with nausea and vomiting and occasionally urinary symptoms such as frequency and urgency with voiding difficulties. The patient is usually haemodynamically stable with signs of peritonism often being absent at presentation and only being manifest with the necrosis of the tube.

Bimanual pelvic examination may reveal a tender adnexal mass associated with cervical excitation. Investigation: Laboratory studies are usually within the normal range as in this case and pelvic ultrasound may reveal elongated cystic mass with variable septations and scattered internal echoes as seen in (Fig. 1). Colour Doppler transvaginal sonography may show a high impedance waveform with reversal of diastolic flow in the affected tube due to obstruction of the blood supply in the mesosalpinx. (Ref 1)

Diagnosis
When evaluating a patient with acute lower abdominal pain, tubal torsion may not be high in the list of differential diagnosis and the definitive diagnosis is often made retrospectively. Laparoscopy remains the gold standard for the diagnosis and treatment as the early diagnosis may allow detorsion/salvage of the tube. In our case, right oophorectomy and tubal sterilization put her at increased risk of tubal torsion. In conjunction with clinical findings and ultrasound examination, this allied us to make preoperative diagnosis of torsion of a right hydrosalpinx. Treatment: Laparoscopic tubal detorsion is preferred than salpingectomy in patients of reproductive age in the absence of ischaemic damage and a suspicion of malignancy. Laparoscopic salpingectomy is the treatment of choice if the tube is gangrenous, there is a suspected adnexal malignancy and the tube is diseased as in this case or the patient had completed her family, again as in this case.

Conclusion
Fallopian tube torsion is a rare but significant cause for acute lower abdominal pain in women of reproductive age. Clinicians should consider tubal torsion in the differential diagnosis in women who exhibit predisposing factors.

References:
References
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