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Case Report

Serous cystadenoma of fallopian tube: A case report of a rare pathology presented as an isolated tubal torsion

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ABSTRACT

Serous cystadenoma of the fallopian tube is an extremely rare benign tumour. Here, we report a case of acute abdomen due to an isolated tubal torsion where the tube was hugely dilated and filled with serous fluid. Laparoscopic drainage of tubal content followed by de-torsion and salpingectomy was performed. Literature search revealed only six cases of this rare pathology.

KEY WORDS: fallopian tube diseases, torsion abnormality

INTRODUCTION

Tumours of fallopian tubes are rare. The World Health Organization classification identified different histological patterns including epithelial, mixed epithelial – mesenchymal, soft tissue, mesothelial, germ cell, trophoblastic, lymphoid and hematopoietic and secondary tumours. These tumours can be benign, borderline and malignant^[1].

The clinical picture of each specific pattern is still not clear where most of the benign tumours tend to be asymptomatic, rarely can present as isolated tubal torsion^[2].

Here, we report a case of tubal serous cystadenoma presented with isolated tubal torsion.

CASE REPORT

A 25-year-old nulligravid presented to the emergency department with sudden onset of severe left flank pain associated with nausea. There was no vomiting, diarrhoea, fever or any urinary symptoms. The patient was previously healthy with regular menses without any significant history of dysmenorrhoea. She did not have any sexual activity (virgin). Her vital signs at time of examination were stable. Clinical examination showed left lower quadrant tenderness on palpation without any costo-vertebral angle tenderness. Blood investigations showed normal white cell count and C-reactive protein (CRP). She had normal urine analysis. Urgent computed tomography (CT) was performed considering the possibility of having renal calculi. No ureteral calculi were found but instead a left cystic adnexal mass was identified.

Abdominal ultrasound showed 11*9*9 cm simple cyst anterior to the uterus and superior to the bladder. The cyst arose from left adnexa towards midline. It showed no solid component. The uterus and right ovary looked normal. Colour Doppler showed presence of blood flow, however it was decreased on the left side compared to the right (Figure 1).

Clinical picture was compatible with adnexal torsion. Urgent laparoscopy was performed and showed huge dilated and torted left fallopian tube. An isolated tubal torsion was identified with bluish discoloration. Both ovaries and right fallopian tube appeared normal and healthy looking.

De-torsion was not feasible before drainage of fluid within the left fallopian tube, so veres needle was inserted suprapubic and around 400 ml of clear fluid was drained and sent for cytology (Figure 2). Left salpingectomy was performed and t tube was placed in an endobag and removed without spillage. The pathology revealed tubal serous cystadenoma without any evidence of malignancy. The intratubal fluid was acellular and negative for malignancy.

DISCUSSION

Isolated tubal torsion is a rare cause of lower abdominal pain that was firstly described by Bland Sutton in 1890^[3] with a reported incidence of 1 in 1.5 million women in reproductive age group^[4]. The identified aetiologies of this rare entity include intrinsic tubal factors such as congenital anomalies, excessive length of the tube, hydrosalpinx, hemosalpinx and neoplasm. Other extrinsic factors include adhesions, pregnancy, changes in neighbouring organs and pelvic congestion. Also, normal tube was noticed in many cases of isolated tubal torsion^[3]. Adnexal torsion is mainly a clinical diagnosis where acute onset of one-sided severe pain is a key for diagnosis. Imaging can guide the diagnosis especially in case of presence of adnexal masses more than 5cm OR 10.6 (95% CI 2.9–38.8)^[5]. Addition of Doppler flow to look for the characteristic whirlpool sign or the absence of blood flow would be helpful to establish the diagnosis however these signs are not always present in torsion cases^[6].

In our case, the tube was largely dilated, and it mimics an ovarian cyst with positive Doppler flow. The clinical picture was culprit to diagnose torsion. Preoperatively, tubal disease was not suspected especially that our patient is virgin and not sexually active at all. So, pelvic inflammatory disease and tubo-ovarian abscess were excluded. The final pathology was serous cystadenoma of the fallopian tube which is an extremely rare documented pathology presented as a huge adnexal mass.

Medline search revealed six cases of serous cystadenoma in the fallopian tube documented in five case reports (Table 1) and one case identified in analysing series of 20 cases of tumours of the fimbriated end of the fallopian tube^[7]. In our case the full tube was dilated mimicking the appearance of a large ovarian cyst of 11 cm. In previous cases, the tubal cystadenoma was <5 cm in size. This hugely dilated tube elicited the acute pain upon torsion. Our patient denied any episodes of previous pelvic heaviness or pain.

Tubal diseases are rare entities that should be considered preoperatively while counselling the patient where salpingectomy would be the definitive treatment as in our case.

CONCLUSION

Isolated tubal torsion on top of rare pathology is a rare cause of acute abdomen that should be considered preoperatively where salpingectomy is ultimate.

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Table 1: Summary of published cases reports.

Author	Year of publication	Age (years)	Clinical findings	Treatment	Site and size
Nagendran et al ^[8]	2010	14y	Abdominal pain	Excision of fimbrial mass	25x35x25mm arising from the fimbrial of the right fallopian tube
Werlin et al ^[9]	2010	30y	Ruptured ectopic,	Laparoscopic salpingectomy	2cm serous cystadenoma
Bika et al ^[10]	2009	39y	Asymptomatic	Excision of ampullary cyst	20*30 mm ampullary cyst, well circumscribed and simple looking.
Lee et al ^[11]	2001	28y	Abdominal pain	Laparoscopic salpingectomy	Tubal torsion and necrosis
Janovski et al ^[12]	1963	42y	Asymptomatic	Bilateral salpingo-oophorectomy (history of breast cancer)	3.8 * 2cm cystic structure at mid portion of right tube.

Figure 1: Sagittal ultrasound view with colored Doppler shows a large midline cystic formation located superior to the urinary bladder. The right ovary is seen and shows regular internal vascularity. The left ovary is compressed by this adnexal cystic structure.

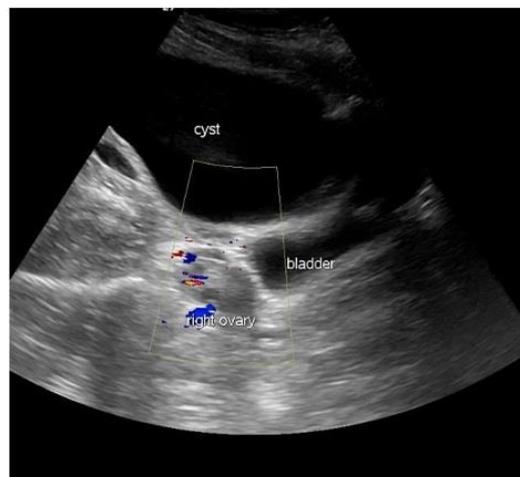


Figure 2: Laparoscopic images show the diseased tube held by grasper and veres needle is inserted inside the tube to drain its fluid content



Figure 3: 100X magnification (H&E) Cyst wall lined by a low cuboidal epithelium.

