

Torsion of Paraovarian Cyst Resulting in Secondary Torsion of Ovary and Fallopian Tube

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Abstract

Torsion of uterine adnexa is an important cause of acute abdominal pain where torsion of ovarian mass is quite common. Paraovarian cysts account for 10% of all adnexal masses. Small POC (Paraovarian Cyst) are common but large POC are rare and very rarely can undergo torsion. Fallopian tube and ovary being in close proximity to POC also undergo torsion along with it. It is usually found in childbearing age. High index of suspicion and prompt treatment is required to salvage the fallopian tube and ovary in such cases. We report a rare case of twisted paraovarian cyst with secondary torsion of ovary around infundibulopelvic ligament and fallopian tube.

Keywords

Torsion of ovary, Paraovarian cyst, Torsion of adnexal mass

I. Introduction

Paraovarian cyst is extra-peritoneal cyst adjacent to the ovary, below the fallopian tube lying inside the broad ligament. Paraovarian cyst arise from the mesothelium and presume to be vestigial remnant of mullerian and wolffian duct [1,2] . It accounts for 10% of all adnexal masses [3] but usually are small and asymptomatic. A large POC is uncommon. It lies in broad ligament near to ovary and fallopian tube is stretched over it. POC is benign, unilocular, thin walled and contains clear fluid. The cyst wall is lined by a single layer of cuboidal epithelium and fibrous tissue. Paraovarian cysts may be complicated by haemorrhage, torsion and rupture. Torsion of POC is very rare [4]. Fallopian tube and ovary being in close proximity to POC can also undergo torsion along with it. Complete torsion causes venous and lymphatic blockade leading to stasis and venous congestion, haemorrhage and necrosis. The sonographic diagnosis of paraovarian cysts can be made by the demonstration of a normal ipsilateral ovary close to but separate from the adnexal cyst.

II. Patients and Methods

A 24 years old female presented to emergency unit with complaints of pain in lower abdomen and 2 episodes of vomitings for 12 hours on 19 may 2016 at Mahatma Gandhi Medical College and hospital, Jaipur. Pain was more in left iliac fossa of sudden onset and it was sharp

and non-radiating, with no relieving factor. There was no history of bleeding per vaginum, diarrhoea, constipation, urinary problems, fever or any other medical illness. Her menstrual cycles were regular and with normal flow. She had her last menstruation 26 days back. She had one male child, delivered 12 month ago as a full-term normal vaginal delivery.

On general examination the patient was conscious, pulse rate- 92/minute, temperature was normal, BP-110/80 mm of Hg, cardiovascular and respiratory system were normal. On abdominal examination, tenderness and muscle guarding were present in lower abdomen and 16 week size cystic mass was found palpable. On per vaginal examination, a cystic mass was felt on left side of uterus, which was very tender, and uterus could not be felt separately. On investigation, her urine pregnancy test was negative. The routine urine and blood tests were normal. Abdominal ultrasound scan showed a large cystic lesion of size 11.1cm*7.4 cm seen in midline, probably arise from left side and right simple ovarian cyst.

An emergency laparotomy under GA was performed in view of evaluating the cause of acute abdomen. Laparotomy revealed a normal sized uterus with a large paraovarian cyst of ~ 12cm * 8 cm in size which was hemorrhagic and twisted around infundibulopelvic ligament

on left side along with left ovary and left fallopian tube. Left fallopian tube was edematous and overstretched over it. Left ovary was bulky with dusky, cyanotic hue due to torsion around infundibulopelvic ligament (Fig. 1) On right side, a simple clear cyst of ovary of ~ 3*4 cm in size was present. Left salpingo-oophorectomy with removal of left paraovarian cystectomy performed. Right simple clear cyst was punctured. Peritoneal lavage was done. Post-operative period was uneventful with one packed cell transfusion. Patient discharged on 7th postoperative day. Histopathological report showed a twisted hemorrhagic paraovarian cyst with an edematous fallopian tube and lining of cyst was composed of a single layer of tubal type columnar epithelium and hemorrhagic infarct was observed in sections of the removed ovary.

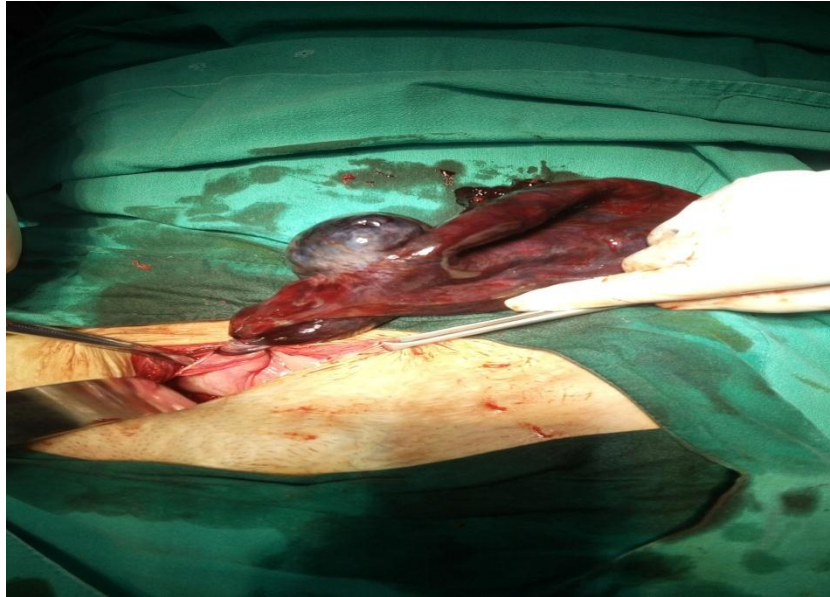


Fig 1. Twisted paraovarian cyst along with torsion of ovary and fallopian tube on left side.

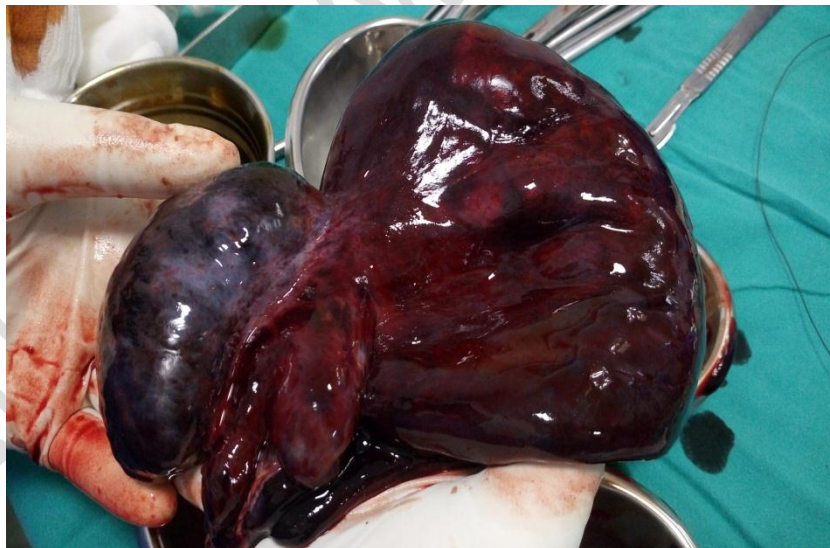


Fig 2. Salpingo-oophorectomy with paraovarian cystectomy.

III. Discussion

Torsion of paraovarian cyst is more common in childbearing age and three times more common during pregnancy [5]. Diagnosis of ovarian torsion continues to be a difficult task requiring awareness and a high degree of suspicion. Postulated causes of normal adnexal torsion include markedly mobile fallopian tubes or mesosalpinx, elongated pelvic ligaments, fallopian tube spasm, strenuous exercise, or abrupt changes in intra-abdominal pressure [6]. Adnexal torsion is uncommon after pelvic inflammatory disease, endometriosis, or malignant neoplasms, this may be due to the presence of adhesions, rendering the ovaries relatively immobile [7]. Some studies have shown that the right ovary is more likely to twist because the space occupied by the sigmoid colon on the left side protects the left ovary [8]. As cyst lies in broad ligament and it has no pedicle of its own, when it undergoes torsion fallopian tube and ovary being close to it also twist along with it. It is difficult to differentiate between paraovarian cyst and ovarian cyst clinically and on ultrasound. CT scan and MRI are more useful but can delay the treatment. High index of suspicion and prompt surgery is recommended

to salvage the fallopian tube and ovary. Several authors advocate detorsion of the pedicle with preservation of adnexal structures [9, 10]. Cystectomy is recommended in case of paraovarian cyst, and an attempt at ovarian salvage should be considered even in the event of torsion. The ovary should not be resected if the blood flow to the ovary is preserved in a twisted paraovarian cyst. Salpingo-oophorectomy can be used for case complicated by torsion with circulatory disturbance [11], as in our case. Awareness of this condition is warranted to achieve an early diagnosis and thus enabling the surgeon to perform a conservative surgery and salvage the fallopian tube and ovary.

I. References

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