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Case Report

Torsion at thirteen: a case report of paraovarian cyst with ovarian torsion in an adolescent girl

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ABSTRACT

Paraovarian cysts represent 5-20% of all adnexal masses; identified in 15.7% of patients undergoing operative laparoscopy. It is diagnosed when complications like cyst torsion, rupture, haemorrhage and neoplasm. Ovarian torsion contributes ~2.7% of all acute abdomen in children, as early as 5 years of life. A 13 years old girl came to OBG department with complaints of mild pain abdomen in lower left abdomen. Vitals stable, body mass index (BMI) 33.6 kg/m^2. On palpation, mild tenderness noted in the left iliac fossa. Ultrasound showed a paraovarian cyst. Patient attenders were not willing for surgical intervention, patient discharged against medical advice. Patient presented to emergency department 10 days later with complaints of pain abdomen since morning, localised to left lower abdomen with vomiting. History of fever since 5 days, now resolved. Patient vitals-pulse of 102 b/min, blood pressure (BP) 100/70mm of Hg. Biomarkers within normal limits. Ultrasound showed bulky (volume ~110 cc) left ovary with absent vascularity on Doppler; a cystic lesion in left adnexa measuring ~7.1×5.9×6.1 cm (vol ~137 cc) likely paraovarian cyst. She underwent Exploratory laparotomy with left salpingo-oophorectomy with left ovarian cystectomy done. Post-operative period uneventful. Histopathology reported as features consistent with torsion of left ovary with paraovarian cyst. In this case of an adolescent girl, if operative intervention was done at first presentation, isolated left paraovarian cystectomy with fertility sparing surgery. The role of expectant management in paraovarian cyst is being studied. Hence, paraovarian cyst should be considered in differential diagnosis of adnexal mass.

Keywords: Benign ovarian mass, Paraovarian cyst, Teenage, Oophorectomy

INTRODUCTION

Paraovarian or paratubal cysts represents 5-20% of all adnexal masses.[1] Paraovarian cyst draws clinical attention in the event of complications like cyst enlargement, torsion, rupture, haemorrhage and neoplasm. Located near the attachment of mesovarium and as it grows, separates the ovary from the fallopian tube, stretching the tube and fimbriae over its upper pole. There are no clear guidelines for the management of paraovarian cyst and its complications.[2] They are identified in 15.7% of patients undergoing operative laparoscopy.[3]

CASE REPORT

A 13 years old girl, attained menarche 3 months back came to the emergency department with complaints of pain abdomen since morning, localised to left lower abdomen, intermittent in nature, non-radiating type, associated with 2 episodes of vomiting which was non projectile and containing food particles. History of on and off fever since 5 days. Patient was conscious and oriented with pulse of 102 b/min, 0 BP 100/70 mmHg BMI of 33.6 kg/m^2. On examination, abdominal obesity was present. Left iliac fossa tenderness was noted. Tympanic note heard in all quadrants of abdomen. Investigations were under normal limits. CA 125 and LDH was within normal limits. Alpha

fetoprotein 0.96 ng/ml. Beta hCG <2 IU. Abdominopelvic ultrasound showed bulky (volume ~110 cc) and edematous left ovary with whirlpool sign and follicular rim sign with absent vascularity on Doppler; a well-defined, round, cystic lesion measuring ~7.1×5.9×6.1 cm (vol ~137 cc) noted in the left adnexa likely paraovarian cyst. She underwent Exploratory laparotomy with left salpingo-oophorectomy with cystectomy. Intraoperatively a 7×7 cms of left paraovarian cyst, 5×5 cms of ovarian cyst, 2 and half turns of torsion present. Left ovary was dilated and congested. Left paraovarian cyst capsule- was intact, smooth and glistening; cut surface exuded minimal serous fluid. A single left ovarian cyst without solid areas was noted. Left salpingo -oophorectomy with left ovarian cystectomy done. Right fallopian tubes and ovaries normal. Histopathology was reported as features consistent with torsion of left ovary with paraovarian cyst. Postoperative period was uneventful.

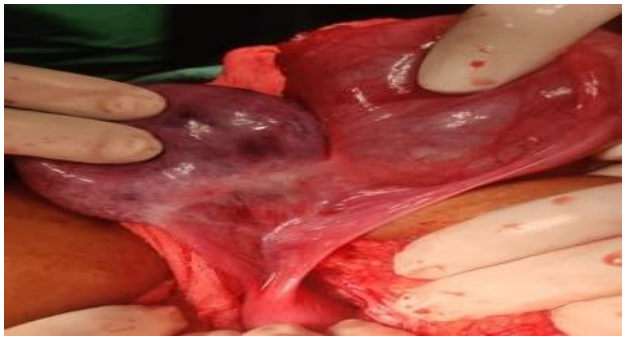

Figure 1: Left paraovarian cyst with congested left ovary.

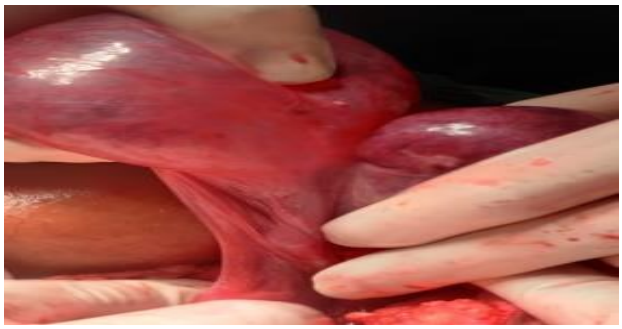

Figure 2: Two and half turns of torsion.

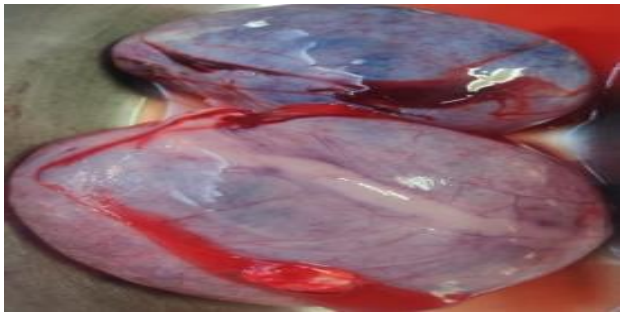

Figure 3: Left salpingo-oophorectomy with left ovarian cystectomy done.

DISCUSSION

Paratubal cysts and paraovarian cysts are cysts located within the mesosalpinx. They can develop from the mesothelium and also from paramesonephric tissues or mesonephric remnants.[4] Patient ages ranged from 8-15 years old, mean age of 12. 93% presented with abdominal pain, 53% localized to the side of associated torsion.[3] Association between obesity and paraovarian cyst has been identified.[5] Adnexal torsion is higher in paraovarian cyst than in ovarian cyst (2.1-16% versus 2.3%). As the paraovarian cyst has no pedicle on its own, it torts along with ovary or fallopian tube or both. Adnexal torsion is more common on the right side (3:1). Benign paraovarian tumours are managed by paraovarian cystectomy.[5]

In a study conducted by Tamar et al among 39 pediatric and adolescent patients with an operative diagnosis of adnexal masses located in the paraovarian area, majority of girls with torsion underwent a cystectomy procedure (84.2%), and the remainder underwent detorsion with cyst drainage and biopsy (15.8%).[6]

A case report by Higinio et al a 15-year-old adolescent female with abdominal pain since 6 months with suspected paraovarian cyst underwent surgical laparotomy and a paraovarian cyst was found which was diagnosed as a cystadenoma on histopathology.[7] In a rare case reported by Dayanand et al presenting as acute abdomen, there was torsion and rupture of a huge ovarian cyst with ipsilateral para-ovarian cyst with haemoperitoneum for which exploratory laprotomy with unilateral salpingo-opherectomy was done.[8]

CONCLUSION

Paraovarian cyst should be considered in the differential diagnosis of adnexal mass. The role of expectant management in paraovarian cyst is not well known. Fertility-sparing surgery should be considered in every case. Paraovarian cyst is managed based on the age, presence and severity of symptoms, cyst size and its complications. They cannot be expected to resolve in similar fashion; they are more prone for adnexal torsion, and regardless of its size, tumours have been reported. No society has come up with the strict numerical criterion to decide paraovarian cyst of up to which size can be managed expectantly. There is no role for hormonal treatment in paraovarian cyst. Paraovarian cysts found incidentally while surgery needs excision irrespective of its size to avoid possible complications.

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