

## A Case of Giant Paratubal Cyst: A Rare Case

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**Introduction:** Paratubal cysts represent remnants of the paramesonephric or mesonephric ducts. Among the two remnants, paramesonephric duct is more common. They are generally also called as "hydatid cyst of morgagni". Cyst is usually small, round, blind cyst attached by a pedicle to the fimbriated end of the fallopian tube.

**Case report:** 15 year old girl presented to opd with h/o mass per abdomen, evaluation showed intra-abdominal tumor and was underwent laparotomy. Histopathology report showed Paratubal cyst. The case report here describes about the giant Paratubal cyst with review of literature.

**Conclusion:** Paratubal cysts can become extremely big before causing symptoms. Torsion is another urgent issue regarding PTCs, necessitating urgent surgery for preservation of the ovary and the tube. Paratubal cysts are very difficult to diagnose with sonography, therefore their management should be approached as any other adnexal mass. Negative for immune-histochemistry. High index of suspicious is necessary to diagnose these cases.

**Keywords:** Paratubal cysts, Hydatid Cyst Of Morgagni

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### I. Introduction

PTCs originate from the mesothelium and are presumed to be remnants of the Müllerian duct and Wolffian duct<sup>1</sup>. PTCs is a closed fluid filled sac that grows near to the ovaries and fallopian tube, may and may not be attached to the these organs. Many located at the broad ligament lies between ovary and uterus. These cysts are usually located unilaterally and may occur bilaterally<sup>2</sup>. Incidence of PTCs are not well know, but in Italian population an incidence of 29 per 1000 ( $\approx$  3%) has been reported with peak age of occurrence in the 3<sup>rd</sup> and 5<sup>th</sup> decades of life<sup>4</sup>. They are benign lesions but in long standing cases it may turn into malignancy.

### II. Case Report

15 yr old unmarried female presented to surgery OPD with H/O mass per abdomen which was noticed 20 days back. Patient was asymptomatic. Her bowel and bladder habit were regular. Her age of menarche at 14yrs, menstrual history shows no abnormality. On examination patient was well built and nourished. Her vitals were stable. her abdomen was soft, non tender, mass felt in left lumbar, umbilical, left iliac fossa. Measures about 14x16cm. Firm in consistency. Borders were round and inferior border could not be made out. Dull on percussion. No organomegaly and fluid thrill noted. Per vaginal examination was not done as patient is unmarried. Patient USG abdomen and pelvis suggestive of large thin walled peritoneal cystic lesions measuring about 15x14 cm in the lower lumbar extending to left iliac fossa. A thin incomplete internal septation with no solid component was noticed. Both ovaries are visualised, normal in size, no free fluid in peritoneum. Diagnosis of ? Mesenteric cyst ? ovarian cyst was made. Since no definite diagnosis could be revealed, she was advised CT scan. CT scan showed large cystic mass as seen on USG. Both ovaries were seen normal. Uterus was normal. With diagnostic dilemma between mesenteric cyst, an ovarian cyst and suspicious of malignancy, a decision of laparotomy was made.

Abdomen was opened by vertical midline infra umbilical incision. A giant cyst approx. 20x18x8 cm was seen attached to left fallopian tube, left sided fimbrial end was seen separately. Cyst is excised in toto. Uterus, bilateral ovary and fallopian tube were normal.

Histopathological report of cyst suggestive of cyst wall lined by single layer of cuboidal to tall columnar ciliated epithelium and secretory cells with sub epithelium showing fibrocollagenous stroma, these cells have round to oval located bland nucleus and moderate eosinophilic cytoplasm, no atypia, mitosis, invasion noted.



Intra op fig



Intra op fig

Postoperative period was uneventful, was discharged on postoperative day-7. Patient is now on regular follow up.

### **III. Discussion**

Paratubal cysts (PTCs) and paraovarian cysts are lined by single layer of ciliated columnar or flattened epithelial cells fluid-filled cysts in the adnexa adjacent to the fallopian tube and ovary. Paratubal cysts and paraovarian cyst terms are used interchangeably<sup>1</sup>. These cysts constitute about 10% of adnexal masses. Most of the PTCs and paraovarian cysts are very small in size ranging from 2 mm to 20 mm, occurring asymptotically and were found incidentally during abdominal and pelvic examination or during surgery<sup>3</sup>. It is been concluded that these cysts are difficult to diagnose before surgery with usg and preoperative diagnosis was only possible in 6.6% of the cases<sup>2</sup>. Paratubal cyst are mostly asymptomatic, occasionally give rise to clinical problems due to enlargement, hemorrhage, torsion( 2.1 to 16%), or malignancy. When enlargement of paraovarian or Paratubal cyst occurs, patient might presents with pain in the lower abdomen with or without mass per abdomen and irregular menstrual cycle<sup>5,6</sup>.

It has been noted that these cysts tend to be more common in women with unexplained infertility (52.1% versus 25.6% in controls,  $p < 0.001$ ) and suggested that they may play a role in infertility<sup>7</sup>. It has been proposed that these cysts interfere with tubal pick-up and function<sup>8,9</sup>. Neoplasms constitute 2.9% of the reported cases and most neoplasms are carcinoma. Most of the neoplasm in this condition are reported in the adult population, such as cystadenocarcinoma and pappillary carcinoma. And in adolescent population papillary serous cystadenocarcinoma were reported<sup>5</sup>.

Laparoscopic unroofing and usg guided needle aspiration, which have been used for common ovarian cysts as minimally invasive treatments, are unsuitable for paraovarian cysts because of risk of malignant change. Laparoscopic cystectomy and extraction of the cysts using bipolar electrosurgery is the method of choice in management of large paraovarian cysts. In our case, in view of diagnostic dilemma and inconclusive diagnosis laparotomy was done<sup>5,10,11</sup>.

### **IV. Conclusion**

Surgeons should always be aware of giant Paratubal or paraovarian cysts in differential diagnosis, in young girl patient presenting with lower abdomen mass. A careful and detailed evaluation is necessary. Possible complication of giant Paratubal cyst like malignancy, future fertility, acute abdomen with torsion and rupture of the cyst and compression due mass effect over surrounding structures and resulting morbidity to be kept in mind and managed accordingly.

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