

CASE REPORT

OVARIAN HUGE SEROUS CYSTADENOMA IN ADOLESCENT GIRL: A CASE REPORT

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ABSTRACT

Ovarian cysts are an extremely common gynecological problem in adolescent. Majority of ovarian cysts are benign with few cases being malignant. Ovarian serous cystadenoma are rare in children. A 14-year-old presented with abdominal pain and severe abdominal distention. She underwent laparotomy and after surgical removal, the mass was found to be ovarian serous cystadenoma on histology.

In conclusions, germ cell tumors the most important causes for the giant ovarian masses in children. Epithelial tumors should not be forgotten in the differential diagnosis.

Keyword: Adolescent; Ovarian Cysts/diagnosis*; Cystadenoma, Serous/surgery; Ovarian Neoplasms/surgery; Ovarian cystadenoma

INTRODUCTION

Cystic lesions of the ovary are most common during infancy and adolescence, which are hormonally active periods of development ¹. Cysts are mostly non-neoplastic in children and could be categorized as follicular, simple, and corpus luteum cysts. ¹ Ovarian cysts rarely grow immense. Ultrasonography scanning permits early detection and appropriate treatment. Occasionally, ovarian cysts reach enormous dimensions without raising any symptoms. A few cases of giant ovarian cysts have been sporadically reported in the literature ¹.

We presented a case of a giant ovarian cyst in a 14-year-old girl, with characteristics of ovarian serous cystadenoma both grossly and microscopically.

CASE

The patient is a 14-year-old female who presented at our surgical department with a gradually increasing abdominal swelling first noticed one year ago. The swelling was accompanied by vague abdominal pain and constipation since six months before admission. There was no history of colicky pain, fainting attacks, vomiting or other gastrointestinal attacks. She had no previous history of any illnesses, allergies or operations. She had normal regular menses. Based on sonographic examinations, a giant abdominal cystic mass that occupied all of the abdomen and pelvic cavity was noted. On general examination she weighed 52 kg. and

vital signs were normal. There was no icterus, edema, or lymphadenopathy. Abdominal examination showed general distension (Figure 1). Intestinal sounds were normal. External genital examination was normal.

Abdominal ultrasonography was suggestive of a giant abdominal cystic mass. Uterus was normal. Bowels were compressed by the mass, and a mild left hydronephrosis was seen. Abdominopelvic computerized tomography (CT) findings were consistent with a large abdominopelvic cystic mass (Figure 2). The patient underwent laparotomy with a midline incision, under and up to the umbilicus. After opening the layers, a large tense, smooth-surfaced cystic mass was noted. The mass was removed from the incision (Figure 3). The cyst measured 35 × 25 × 25 cm, extended up to the undersurface of the left diaphragm, and totally weighed 4 kg. The mass originated from the right ovarian region. We excised the cyst with the ipsilateral fallopian tube and ovary. The left fallopian tube was adherent to the surface of the cyst. The right ovary and fallopian tube was explored and normally noted. There was no free fluid in the abdomen.

In pathologic examination: Cyst is lined by a single layer of epithelium overlying a fibrotic wall (Hematoxylin-eosin stain, original magnification, X 100) (Figure 4). Pathology confirmed serous benign cyst of the ovary.

The postoperative period was uneventful and the patient was discharged on the third day after the operation. After the post-operative six-month period, she is healthy with no recurrence of the disease.



Figure 1: Abdominal distension



Figure 2: Large abdominopelvic cystic mass in CT

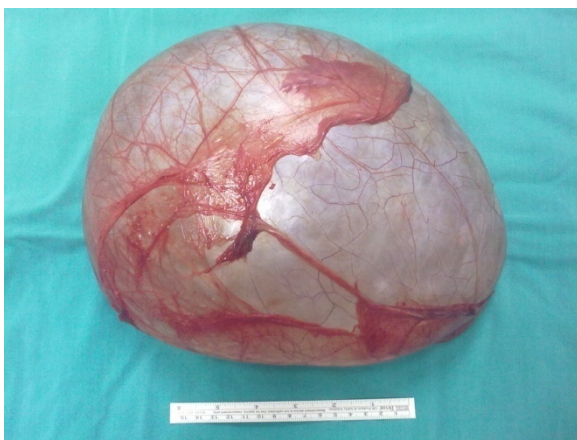


Figure 3: The mass removed from the incision

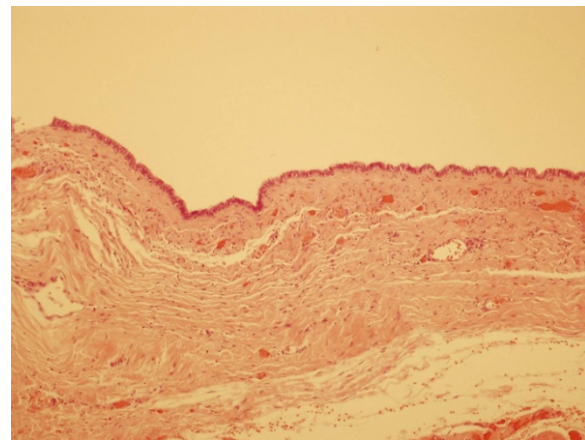


Figure 4: Cyst is lined by a single layer of epithelium overlying a fibrotic wall (Hematoxylin-eosin stain, original magnification, X 100)

DISCUSSION

Ovarian neoplasms may be divided according to original cell types into three main groups: epithelial, stromal, and germ cell. Taken as a group, the epithelial tumors are by far the most common type. The single most common benign ovarian neoplasm is the benign cystic teratoma; however, according to some studies, it is serous cystadenoma. The most common types of epithelial neoplasms encountered were benign cystadenoma, of which 75% were serous cystadenomas and 25% were mucinous cystadenomas². Serous or mucinous cystadenomas of the ovary, benign or malignant, are rare in children. They arise from müllerian germinal epithelium. Patients are usually post-pubertal².

The most common clinical presentations of ovarian cysts are abdominal pain, nausea and vomiting, and a history of previous episodes of similar pain and low-grade fever³.

In (pre)pubertal girls, the differential diagnosis with functional cysts can involve some delay. A functional cyst is mainly a unilocular and anechoic cyst with thin borders. Second differential diagnoses of ovarian cysts

are omental cysts. Omental cysts occur in all age groups, but most often they present in children and young adults. Other diagnoses may be mesenteric cysts, cysts arising from retroperitoneal structures like pancreatic pseudocysts, urinary retention, bladder diverticulum, hydronephrosis, cystic lymphangiomas, choledochal cysts, splenic cysts, multicystic dysplastic kidney, gastrointestinal duplication cysts and large uterine tumors⁴.

Malignant transformation is not well known but clonal origin of benign CA, borderline tumors and low-grade epithelial carcinomas is suspected⁵.

Management of ovarian cysts depends on the patient's age, the size and structure of the cyst and menopausal status. Surgical management of cysts is by laparotomic or laparoscopic cyst excision or cystectomy with oophorectomy. In addition, the contralateral ovary should be examined and where it looks suspicious, a frozen section will assist in deciding whether to remove it or not⁶. Some authors have emphasized that intact cyst removal, with gradual rolling of the mass off the inferior vena cava, is the optimal technique. On the

contrary, Hunter *et al.* have reported that gradual decompression prevents rupture of the cyst capsule and greater dissemination⁷. The potential complication of repeated paracentesis is the intraperitoneal spillage of cyst components. This could result in tumor seeding of the peritoneal cavity or paracentesis tract if the cyst is malignant. Other complications associated with repeated paracentesis include infection, bleeding, and an increase in the number and density of peritoneal adhesions, making eventual cyst removal even more difficult⁸.

In the cases of emergency surgery that do not allow waiting for results of tumor markers, decision of choice, laparoscopy versus laparotomy, can be based on size and structure of the enlarged ovary⁹. Low malignant recurrences have been reported more than ten years after initial surgery in the adult patient population, so it may be safe to assume that those diagnosed in adolescence should be observed into adulthood. Although adherence to long-term follow-up can be difficult, as evidenced by patient no. 5 who was lost to follow-up for four years, this should not alter the decision to perform a conservative surgical procedure in an attempt to preserve a patient's fertility¹⁰.

In conclusion, we know that germ cell tumors are the most important causes for giant ovarian masses in children. But epithelial tumors should not be forgotten in the differential diagnosis.

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