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Case Report

Giant Serous Ovarian Cystadenoma in a 13-Year-Old. A Case Report

C Minas[1], Maria Sialarou[1]* and Z Zachariou[2]

[1]*Makarios Children's State Hospital, Cyprus*

[2]*Medical School, University of Cyprus, Cyprus*

***Corresponding Author:** Maria Sialarou, Arch. Makarios III, Nicosia, Okipi-Ministry of Health Cyprus, Cyprus.

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Abstract

Aim: Presentation of a serous cystadenoma of the ovary in adolescence; and literature review.

Case Description: A 13-year old girl presented at the emergency department with acute abdominal pain since the last 2 days. U/S and MRI of abdomen and pelvis were performed and a huge cystic lesion involving the abdomen was revealed which was returns similar intensity to fluid. The patient underwent emergency operation and the mass which was rotated clockwise was removed en-block with the right ovary. Histological examination revealed a serous cystadenoma. She was discharged after four days and the post-operative follow up was uneventful.

Keywords: *Serous Cystadenoma; Adolescence; Ovarian Mass*

Introduction

Tumors of the ovaries are usually encountered in adults. Rarely they appear in children. Only a few cases are reported in the international literature up to date.

Epithelial tumors are only 8 - 10% of all the ovarian tumors, with benign cystadenoma being the most common of them, of which serous (75%) and mucinous (25%).

Patients with cystadenomas usually are asymptomatic or painful due to complications as torsion, hemorrhage and rupture. Constipation, ureteric compression, abdominal enlargement, or even abdominal compartment syndrome especially at huge sizes are described.

A thorough clinical, laboratory and imaging scanning is mandatory because early management will prevent unwanted complications concerning the patient's life and fertility.

Case Report

A 13-year old pre-menarchal girl was admitted from the emergency department. She complained for abdominal pain that gradually worsened the last two days, with the pain trigger point mainly in the right lower quadrant. No vomiting or constipation was referred.

The recent patient's medical history was referred to constipation the last 6 months. The last 2 years she was on medications (metformin) for insulin resistance. Physical and clinical examination showed abdominal distension, diffuse as acute abdomen. Laboratory findings (full blood count, serum biochemistry) revealed inflammatory notes slightly elevated. WBCs: 13600 (80,7% PMNs) Hb: 12.3 mg/dL Hct: 37%, CRP: 91.4, Urea: 33 unit, Creatinine: 1.16 mg/dL, Na: 135, K: 4.3, SGOT: 16 units/L, SGPT: 16 units/L, Amylase: 64, Total bil: 1.16. Tumor markers levels were in normal limits except CA-125. A- fetoprotein: 1,3 ng/mL (n.r: < 7.2), human chorionic gonadotropin: < 1,2 IU/L (n.r: < 5.00), CA19-9: 8,8 IU/ml (n.r < 37.0), CEA: 0,6 ng/mL (n.r: 0.0 - 5.0) CA-125: 49.8 IU/ml (n.r: < 37).

A transabdominal ultrasound was suggestive of a huge abdominal cystic mass and an MRI of abdomen and pelvis were performed. Findings were consistent with a huge cystic lesion involving the abdomen and measure about 12 x 23.4 x 23.2 cm. The abnormality returns similar intensity to fluid. Within the right lower posterior aspect of the lesion there was a curvilinear low signal intensity structure. The lesion was displacing the liver to the right and the pancreas and kidneys in the posterior aspect. In the area of the pelvis the uterus appeared retroverted and the ovaries were just shown. The MRI suggested lymphangioma, intestinal duplication as differential diagnosis.

Surgical intervention was decided due to acute abdomen and exploratory laparotomy was performed a midline incision, below and above to the umbilicus. A giant cystic mass with smooth surface was found to originate from the right ovary (Figure 1). The cyst occupied the whole abdominal cavity and was rotated 4 times clockwise revealed (Figure 2). Minimal fluid was found within the peritoneal cavity above the urinary bladder and douglas region. The left ovary was of normal size and shape.

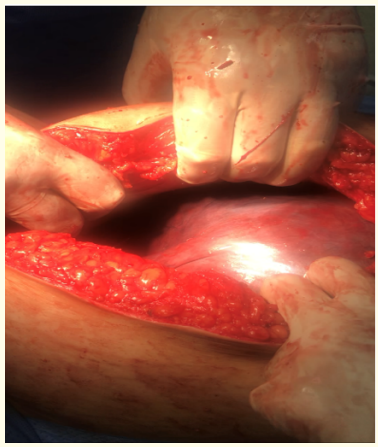

Figure 1

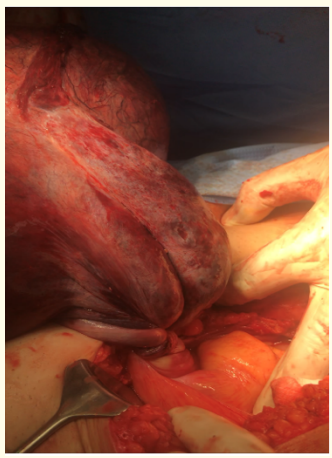

Figure 2

Right salpingo-oophorectomy en block with the cyst was performed because there was no normal ovarian tissue. Dimensions of the mass were 22 x 13 x 23 cm and it was 4,8 kg (Figure 3).

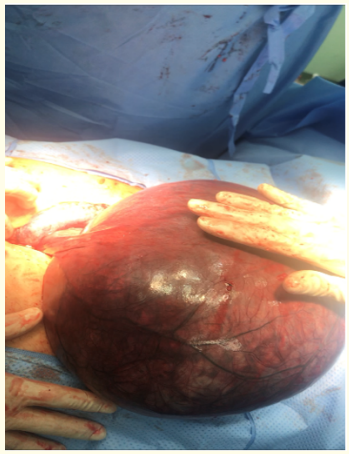

Figure 3

Histological examination revealed a serous cystadenoma. The patient was discharged after 4 days and the post-operative follow up was uneventful. Tumors markers 2 months later were in normal limits; CA-125: 19.9 IU/ml (n.r: < 35.0) A- fetoprotein: 1,7 ng/mL (n.r: < 7.2), human chorionic gonadotropin: < 1,0 IU/L (n.r: < 5.00), CA19-9: 7.3 IU/ml (n.r < 37.0), CEA: 0,9 ng/mL (n.r: 0.0 - 5.0).

Discussion

Large tumors of the ovaries in children are very uncommon. Only 8 - 10% of all the neoplasms are epithelial tumors with the majority of them being cystadenoma; of which 75% are serous and 25% are mucinous cystadenoma. Beside epithelial tumors; stromal and germ cells tumors are the other two groups of ovarian tumors according to original cell types. Serous cystadenoma origin from mullerian germinal epithelium and according to the amount of the fibrous tissue can be classified into cystadenoma, cystadenofibroma, adenofibroma, papillary cystadenoma, papillary cystadenofibroma, and papillary adenofibroma.

In general, they are asymptomatic and this occurs due to their slow growth rate. The first and the most common symptom is that of a large palpable abdominal mass. Abdominal distension, constipation, ureteric compression, non-specific chronic abdominal pain and even abdominal compartment syndrome are referred.

First line imaging is an ultrasound scan followed by the computed tomography and the magnetic resonance imaging to confirm diagnosis. They will reveal with high diagnostic precision the type of the tumor and from where it is originated.

Tumor markers may be helpful in diagnosis though nonspecific. They can also be used for postoperative monitor or relapse. Alpha fetoprotein, cancer antigen 125, cancer antigen 19-9 are used most times to monitor postoperatively for complete resection or relapse of the mass.

Differential diagnosis of other ovarian masses are: mesenchymal hamartoma, lymphangiomas, mesenteric and omental cysts, urachal cysts, choledochal cysts, hydronephrosis, appendiceal abscess, intestinal duplication, abdominal tumors; as teratomas, and pancreatic or splenic cysts.

Surgery is both diagnostic procedure (in case that U/S, CT, or MRI are not helpful) and the inevitable treatment for large symptomatic cysts. Even though cyst excision or cystectomy with oophorectomy are prescribed ovary-sparing surgery is almost impossible at these tumors due to the big size [1-8].

Conclusions

Cystadenomas are the most common benign epithelial tumors of the ovaries. They may be asymptomatic or painful due to complications as torsion, hemorrhage and rupture. Constipation, ureteric compression, abdominal enlargement, or even abdominal compartment syndrome especially at huge sizes are described. Diagnosis is established by transabdominal ultrasound, CT or MRI scan, even though exploratory laparotomy or laparoscopy may be necessary.

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