Torsion of Huge Benign Serous Cyst-adenoma of Ovary in Adolescent Girl: A Case Report and Review of Literature

Rajshree Dayanand Katke

ABSTRACT

Ovarian cysts are an extremely common gynecological problem in adolescent girls. Majority of ovarian cysts are benign with few cases being malignant. Ovarian serous cyst adenomas are rare in children. A 14-year-old presented with abdominal pain and severe abdominal distension. Her Computerised Tomography Scan (abdomen + pelvis) revealed the findings as large peripherally enhancing cystic lesion measuring 20x12x12cm seen arising from right side of pelvis.

Her Tumour Markers were within normal limits. She underwent laparotomy and after surgical removal, the mass was found to be ovarian serous cystadenoma on histology. In conclusions, germ cell tumours the most important causes for the giant ovarian masses in children. Epithelial tumors should not be forgotten in the differential diagnosis

Keywords: Adolescent, Ovarian Cysts, Ovarian Neoplasms, Serous Cystadenoma

M.D. (Obstetrics & Gynaecology), FMAS, FICOG,
Medical Superintendant Associate Professor & HOU Obstertrics & Gynecology Department, Cama & Albless Hospital, Grant Government Medical College & Sir J. J. Group of Hospitals, Mumbai, Maharashtra, INDIA.
Corresponding author mail: drrajshrikatke@gmail.com
Blog: drrajshreekatke.blogspot.in

Conflict of interest: None

INTRODUCTION

Cystic lesions of the ovary are most common during infancy and adolescence, which are hormonally active periods of development. 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.

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.

Depending upon the epithelial cell type they are classified as serous, mucinous, endometriod, clear cell and mixed[2]. Because of their complex solid cystic appearance on imaging they tend to mimic a malignant neoplasm pre-operatively.

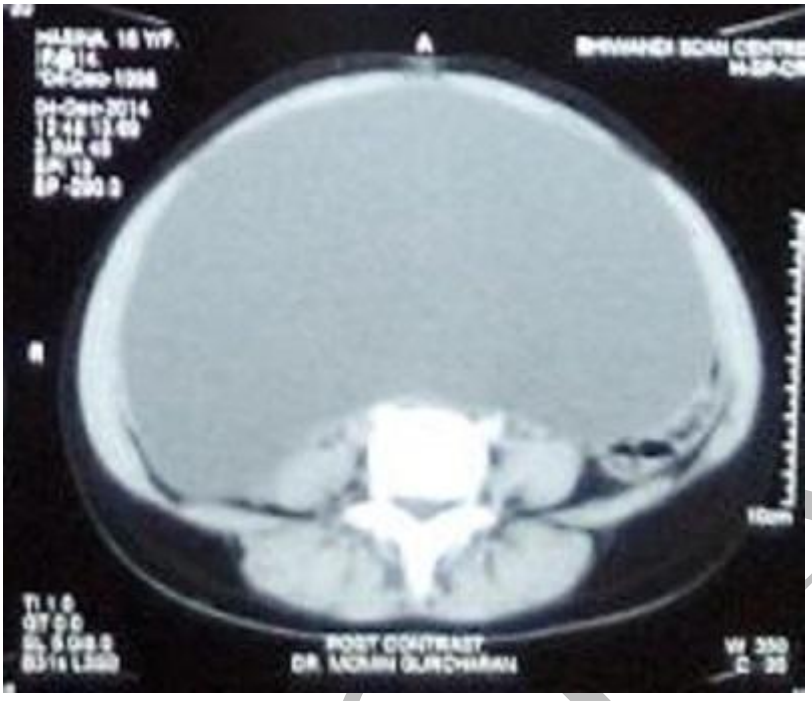
CASE REPORT

A 16 year old unmarried girl presented with complaint of pain and lump in abdomen since 3years which was gradually progressive in nature. Patient had consulted private practitioner and taken some treatment at private Hospital but her symptoms were not relieved and because of huge tumour in the abdomen she has been referred to our Institute.

Her menstrual cycles were regular and there was no significant history of any medical or surgical disorder in the past.

On examination her general condition was fair,thin built, her weight was 50 kg. Vitals were stable, pulse 86beats/min, blood pressure 120/80mmhg. Respiratory and cardiovascular system examination findings were normal. Abdomeninal examination on Inspection there was huge distension of abdomen all over abdomen,skin over the abdomen was thinned and shiny.on palpation the tumour was 36 weeks of uterine size, firm to hard in consistency, mobility restricted, margins were ill defined was arising from the lower pelvis and extending till xiphisternum and both sides of iliac fossae

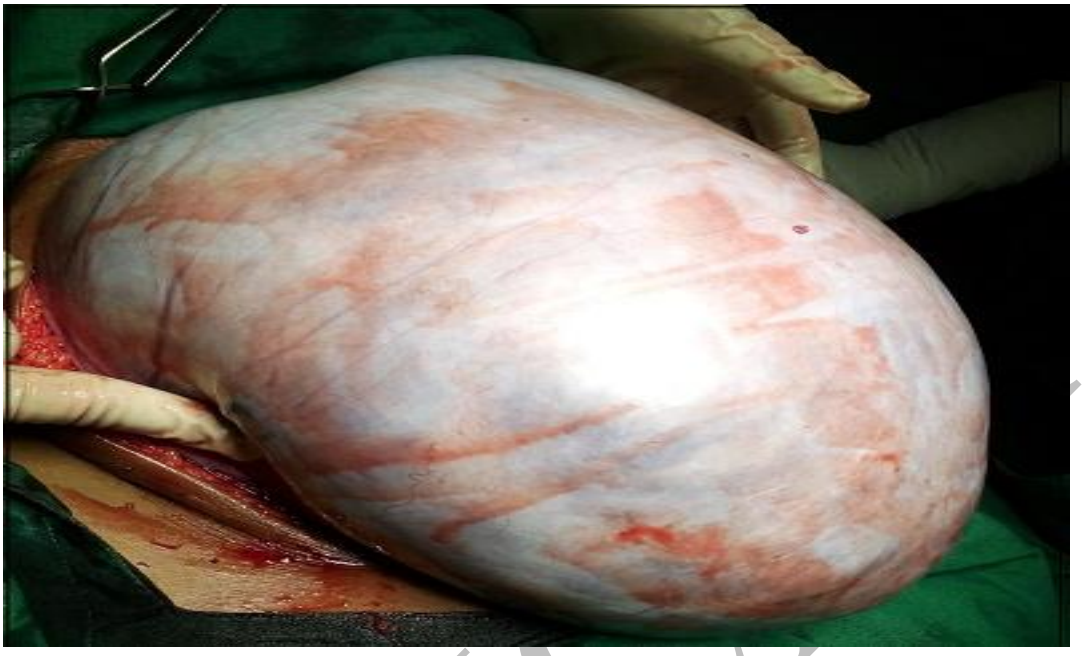
Her haematological investigations were within normal limits. Her liver, renal functions were also in normal values. On Computised Tomography, CT Scan (abdomen+pelvis) revealed the findings as large peripherally enhancing cystic lesion measuring 20x12x12cm seen arising from right side of pelvis extending into bilateral iliac fossa, lumbar region, epigastric region, pushing the bowel loops laterally and uterus and bladder posteriorly. Right ovary is not separately visualized and left ovary is normal. No free fluid in pelvis present.



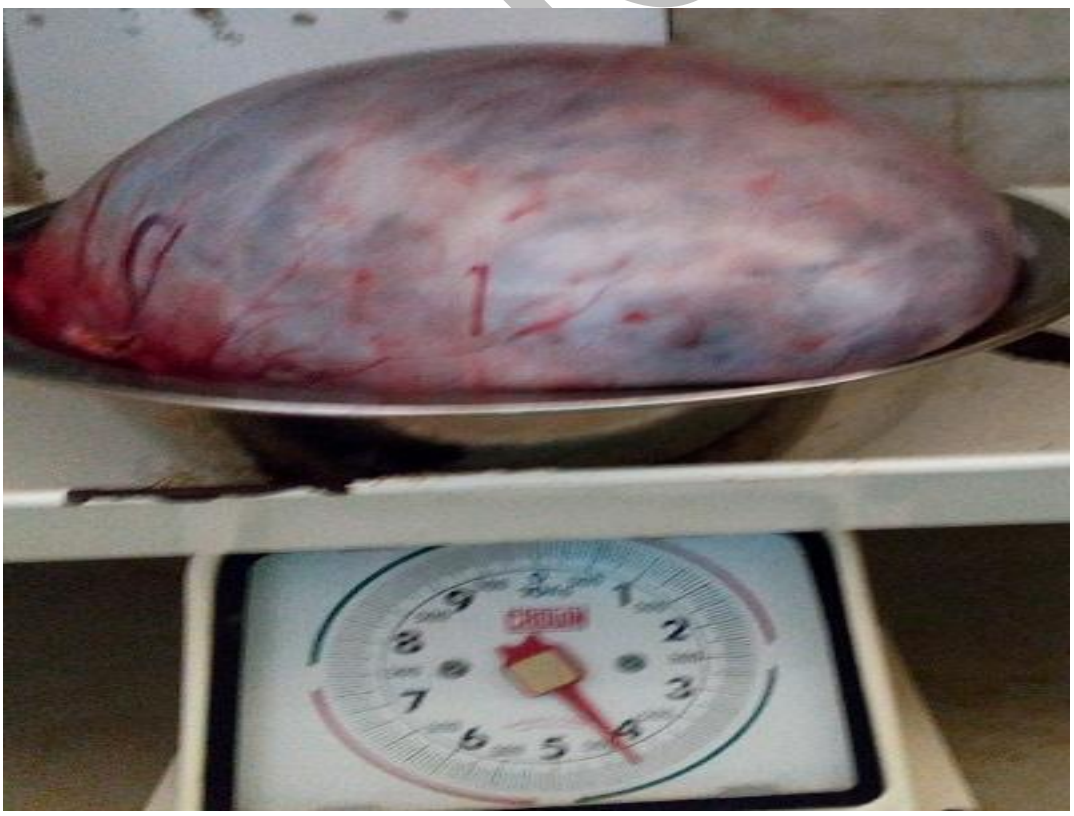
Her Tumour markers CA-125 was 19IU/ML (0-35 IU/ML NORMAL RANGE) .Patient taken for exploratory laparotomy keeping the frozen section facility ready.

On opening the abdomen there was minimal fluid in the abdomen taken for cytology. There was a huge tumour of 30cm*25cm*20cm, arising from the Right ovary, capsule was intact, firm to hard in consistency, solid in nature extending from lower pelvis to xphisternum. The Right fallopian tube over stretched and flattened over the ovarian tumour with Torsion at the pedicle. The Right side ovarian Tumour with excision with right salpingectomy done. Frozen section revealed the report of ovarian cyst adenoma.

In situ-approximately 24x23x12cm right ovarian mass greyish white, cystic well encapsulated, adhered to fallopian tube.



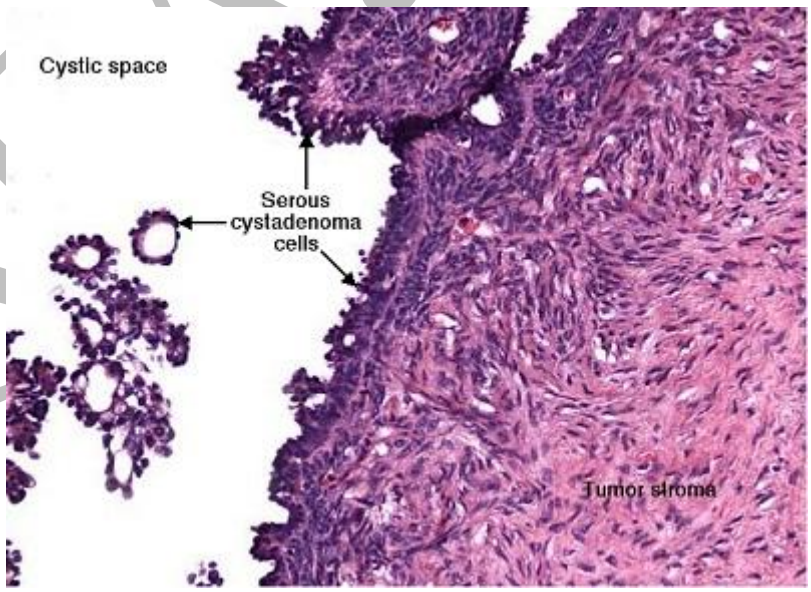
Torsion of right ovarian cyst was present. The right ovarian mass was excised intact weighing 4.5 kg.



Frozen section report was suggestive of benign serous cystadenoma of right ovary.

Pt withstood the surgery well with no intra-operative or postoperative complications.

Final histopathology report confirmed diagnosis of serous cystadenoma.



On day 9 of surgery complete suture removal was done. Wound healthy.

DISCUSSION

Children with an ovarian mass might have no symptoms, and the mass might be detected incidentally or during a routine examination. Other children present with lower abdominal pain or an increase in abdominal girth that may be accompanied by nausea, vomiting, dysuria, increased urinary frequency, urinary retention, constipation, weight loss, menstrual abnormalities, dyspnea, orthopnea, ascites, supine hypotension, hydronephrosis, or pleural effusion.[3] Ovarian masses in children more frequently are associated with acute complications such as torsion, hemorrhage, and rupture.2

Torsion of the ovary usually occurs with torsion of the fallopian tube as well on their shared vascular pedicle around the broad ligament, although in rare cases the ovary rotates around the mesovarium or the fallopian tube rotates around the mesosalpinx. In 80%, torsion happens unilaterally, with slight predominance on the right[4]

In the modern era of medicine, such huge ovarian tumours have become rare in the current medical practice, as most of the cases are diagnosed early during routine gynaecological examinations or incidental finding on the ultrasound examination of the pelvis and abdomen. Most of the patients who have large tumours they present mainly with the pressure symptoms over the genitourinary system leading to urinary complaints and also pressure over respiratory system leads to respiratory embarrassment[5].

The role of imaging modalities like CT scan and MRI gives better idea about the extension of the tumour in the various quadrants of the abdomen and consistency of the tumour. Management of ovarian cysts depends on the patient's age, the size of the cyst and its histo-pathological nature. Conservative surgery as ovarian cystectomy and salpingo-oophorectomy is adequate for benign lesions. Frozen section is very important to know the malignant variation of this tumour and that helps in the management of the patient.[5] Extensive laboratory evaluation usually is unnecessary in cases of a simple ovarian cyst.

When malignancy is suspected, tumor markers such as cancer antigen 125, α1-fetoprotein, human chorionic gonadotropins α and β, carcinoembryonic antigen, inhibin, lactate dehydrogenase, estradiol, and testosterone can assist in making a definitive diagnosis and in guiding the treatment.[6]

In cases of an ovarian mass that is growing, persistent, or symptomatic, or when malignancy is suspected, surgery is required[7]. The goals of surgical therapy are first, removal of the neoplasm and appropriate staging, and second, preservation of fertility.10,11,13

While uncommon in children and adolescents, giant ovarian cysts larger than 15 cm in diameter can be encountered. Very few cases of giant serous cystadenoma in adolescents have been reported14-20. Grapsa and colleagues21 tallied 14 cases of unilateral serous cystadenoma, with sizes ranging from 6 to 21 cm, in their retrospective analysis of 86 cases of ovarian tumor in adolescents; accordingly, the medical history was unremarkable in all patients with cystadenoma in their study

In patients with epithelial ovarian cancer, conservative surgery of an ovary and the uterus can only be considered in adequately stratified patients with serous, mucinous or endometrioid tumor, excellent prognostic factors (stage IA, grade 1 or perhaps 2) and a careful follow-up. Removal of the ovary should be carried out when childbearing is complete[8].

CONCLUSION

Huge Ovarian mass is an uncommon finding in a female adolescent. In adolescents with ovarian masses, physiologic ovarian cysts are most common, while ovarian neoplasms are relatively infrequent. Physicians should be aware of the clinical manifestations, complications, evaluation, and proper management of ovarian masses, who present with lower abdominal pain, increased abdominal girth, or palpable abdominopelvic mass.

Here we reported a case of 16 years female with huge serous cystadenoma successfully managed by surgical expertise and could go back to her normal life .

REFERENCES

1. Ilhan ciftci1, tamer sekmenli2, serdar ugras3 ovarian huge serous cystadenoma in

adolescent girl: a case report, national journal of medical research , volume 3 | issue 2 | apr – june 2013 page 187-189

2. Katke RD et al. Bilateral serous cystadenofibroma of ovary with paratubal cyst: a rare case report Int J Reprod Contracept Obstet Gynecol. 2014 Sep;3(3):764-766

3. Schultz KA, Sencer SF, Messinger Y, Neglia JP, Steiner ME. Pediatric ovarian tumors: a review of 67 cases. Pediatr Blood Cancer. 2005;44(2):167-173.

4. Katke RD, Gohil D. Rupture and torsion of a huge ovarian cyst with ipsilateral

para-ovarian cyst presented as haemoperitoneum and acute abdomen: A rare case report and review of literature. Int J Res Health Sci [Internet]. 2014 Oct 31;2(4):1170-3

5. Katke RD. A huge benign mucinous cystadenoma of ovary: a case report and review of literature. Int J Reprod Contracept Obstet Gynecol. (2014), [cited January 28, 2015]; 3(2): 456-459.

6. Deligeoroglou E, Eleftheriades M, Shiadoes V, et al. Ovarian masses during adolescence: clinical, ultrasonographic and pathologic findings, serum tumor markers and endocrinological profile. Gynecol Endocrinol. 2004;19(1):1-8.

7. Postma VA, Wegdam JA, Janssen IMC. Laparoscopic extirpation of a giant ovarian cyst. Surg Endosc. 2002;16(2):361.

8. Katke RD successful outcome of pregnancy in borderline malignant ovarian tumor journal of case reports 2014;4(2):391-394.