Case Report

Benign Mucinous cystadenoma of the ovary in perimenarchal girl: Case report

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Abstract:

It has been estimated that ovarian lesions make up 1.5% of all childhood malignancies. A small proportion of ovarian tumors in children (approximately 15% - 20%) are derived from the ovarian epithelium. Such epithelial ovarian tumors are commonly found in adults, but these tumors, including serous and mucinous types, are extremely rare in premenarchal girls.

We reported case of 11-year-old premenarchal girl with symptoms of lump in abdomen, intermittent retention of urine and constipation since 1-2 months *On* Per abdomen examination a single smooth surface cystic mass arising from pelvis extending up to lower border of umbilicus 20=22weeks size pregnant uterus ,lower border not reached. CT SCAN shows E/o hypo attenuating well defined thin walled minimally enhancing lesion of approximate size 11cm×7cm×13cm seen arising from pelvis and is superolateral to fundus of uterus and urinary bladder . Patient was posted for exploratory laparotomy with provisional diagnosis of germ cell tumour. Intraopreative finding of left sided cystic ovarian mass of approximately 10cm ×9cm. Left ovary not visualised separately from mass. Left sided oopherectomy was done. Mass was removed and send for frozen section report came as mucinous cyst adenoma. Final histopathological report came as mucinous cyst adenoma

Key-words: premenarchal girl, epithelial ovarian tumors, mucinouscyst adenoma

Background:

Ovarian tumours are relatively uncommon in children, gynaecological malignancies account for about 1–2% of all paediatric cancers, and roughly 60–70% of gynaecological malignancies are ovarian in origin. [1] It has been reported that 40% - 50% of childhood ovarian masses are nonneopalastic, and the majority of ovarian neoplasms in children arise from germ cells. [2,3]**n**It is well-known that germ-cell tumors are the commonest ovarian neoplasm in the first two decades of life constituting approximately two-thirds of all ovarian tumours. Epithelial ovarian neoplasms are extremely uncommon in children. Ovarian mucinous cystadenoma is benign and an extremely rare presentation in the premenarchal period. Mucinous ovarian tumor is rare in children, with only 16 cases in premenarchal girls reported to date.

Case report: We reported a case of 11 year old prepubertal girl came with complain of lump in abdomen, intermittent retention of urine and constipation since 1-2 months. Menstrual history – not attained menarche.

Examination: General condition fair, thin built, no e/o any lymphadenopathy.

Per abdomen examination :

Inspection - Uniform lower abdominal distension up to umbilicus.

Palpation - A single smooth surface, cystic mass arising from pelvis extending up to lower border of umbilicus 20 to 22weeks size pregnant uterus, lower border not reached.

No any organomegaly, no evidence of any free fluid.

Per speculum and per vaginal examination -Not done considering age of the patient. Provisional diagnosis of germ cell tumour was kept.

Investigations

Routine investigations were normal.

Tumour markers

LDH 321 U/L

CA 125 17.1U/ml

B-HCG 4.32 mIU/ml

Alpha fetoprotein 1.62ng/ml

USG

E/o anechoic cystic lesion of size approximately 10.8cm ×6.4cm with multiply echoes within it mass seen in the pelvis.

Both kidneys shows mild hydronephrosis

However the exact origin of mass could not be commented.

CT SCAN

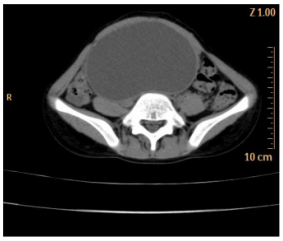
E/o hypo attenuating well defined thin walled minimally enhancing lesion of approximate size 11cm×7cm×13cm seen arising from pelvis and is superolateral to fundus of uterus and urinary bladder .

Left ovary is not distinctly visualised.

Both kidneys showed mild hydronephrosis with hydroureter (right >left) secondary to mass effect caused by above mentioned lesion. s/o Left ovarian cyst.

Patient was posted for exploratory laparotomy with provisional diagnosis of germ cell tumour.

Fig 1 CT Scan image of tumour



INTRAOPREATIVE FINDING

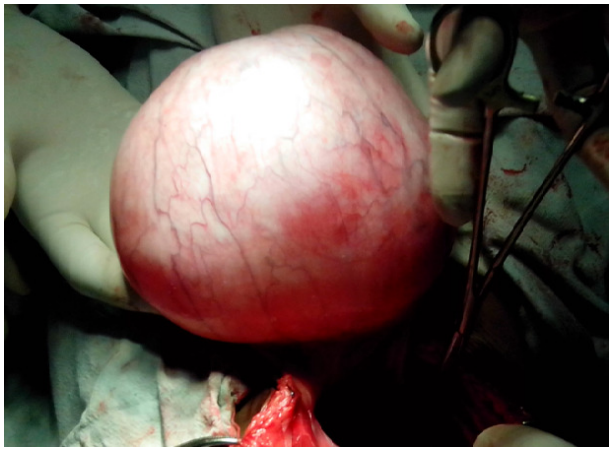
No e/o any adhesions or ascitis.

Left sided cystic ovarian mass of approximately 10cm × 9cm x 8cm. Left ovary not visualised separately from mass.

No e/o any lymphadenopathy.

Mass was removed and send for frozen section. Report came as mucinous cyst adenoma. Because clinically and frozen section suggest benign nature of lesion only ipsilateral ovariotomy was done. Post operative period uneventful.

Fig 2 **Intraopreative finding**

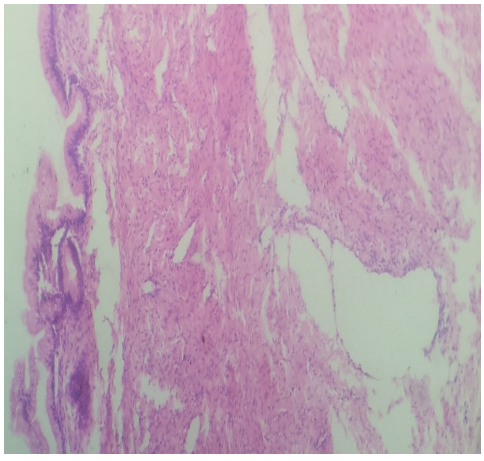


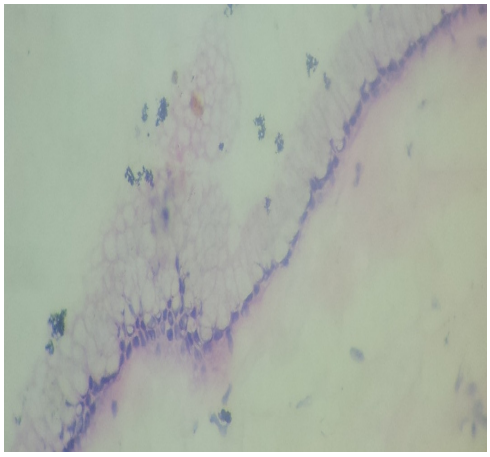
Histopathological

Gross examination specimen consist of single unilocular cyst measuring 13cm ×10cm× 7cm.on cut section 300cc of seromucinous fluid is present.

Microscopic examination section studied from cyst show fibrocollagenous cyst wall lined by mucin secreting tall columnar epithelium. There was no e/o any malignancy.

Fig 3 Microscopic images of mucinouscyst adenoma





Discussion:

Ovarian tumours in children and adolescent girls constitute an important part of gynaecological oncology. During infancy and childhood, the Predominant type of neoplasms are those of germ cell origin. Superficial epithelial ovarian tumors are unusual in adolescent girls (as compared with adult women) and extremely rare before menarche. Mucinous cystadenoma (MCA) in children that is a rare form of epithelial tumour & it is a benign cystic ovarian neoplasm. Mucinous ovarian tumor is rare in children, with only 16 cases in premenarchal girls reported to date.[4-6,5 -12] These cases are summarized.

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Table 1.

No.	Reference (year)	Age yr	Symptom	CA125	Side	Size	Operation	Outcome/follow up
1	South Med J (1982)	10 y	Abdominal pain	N.A.	Left	N.A.	Salpingo-oophorectomy	No recurrence/1.8 years after operation
2	Gynecol Oncol (1992)	12	Discomfort	elevated	Left	630 g	Salpingo-oophorectomy	No recurrence/1 year after operation
3	J Pediatr Surg (2001)	15 y	Abdominal distension	N.A.	Right	6800 g	Salpingo-oophorectomy	No recurrence/3 years after operation
4	J Pediatr Surg (2001)	11 y	Discomfort	N.A.	Left	15 cm	Salpingo-oophorectomy	Dead/2 years after operation
5	Eur J Pediatr Surg (2002)	13	Intermittent pain	normal	Left	1800 g	Salpingo-oophorectomy	No recurrence/ 1 year after operation
6	J pediatr Adolesc Gynecol (2005)	13	Abdominal distension	elevated	Left	7000 g	Salpingo-oophorectomy	No recurrence/ 2.5 years after operation
7	Clin Exp Obstet Gynecol (2006)	11	Acute abdomen	normal	Left	5.5 cm	Oophorectomy	No recurrence/ 2 years after operation
8	Pediatr Surg Int (2006)	13	Abdominal pain	normal	Right	34 cm	Salpingo-oophorectomy	No recurrence/ 4 years after operation
9	Pediatr Surg Int (2006)	14	Abdominal distension	normal	Left	26 cm	Salpingo-oophorectomy	No recurrence/2.6 years after operation
10	Eur J Gynecol Oncol (2006)	13	Abdominal distension	normal	Left	4000 cm3	Salpingo-oophorectomy	No recurrence/16.2 years after operation
11	Eur J Gynecol Oncol (2006)	13	Abdominal pain	elevated	Left	40 cm3	Oophorectomy	No resurrence/3.6 years after operation
12	J pediatr Adolesc Gynecol (2008)	14	Abdominal distension	normal	Right	7200 g	Salpingo-oophorectomy	No recurrence/1 year after operation
13	Scaudi Med J (2008)	12	Abdominal distension	normal	Left	8000 g	Salpingo-oophorectomy	No recurrence/9 months after operation
14	Eur J Gynecol Oncol (2006)	12 y	Abdominal distension	normal	Right	4100 cm3	Salpingo-oophorectomy	No recurrence/1.2 years after operation
15	J pediatr Adolesc Gynecol (2010)	13 y	Acute abdomen	elevated	Left	1120 g	Oophorectomy	No recurrence/8 months after operation
16	Our Case (2012)	12 y	Abdominal distension	elevated	Left	5869 g	Oophorectomy	No recurrence/2 years after operation

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Mucinous cystadenoma is usually unilateral, but it can be bilateral in 5-10% of the case. For diagnosis of the tumor first step is to perform abdominal and pelvic USG. CT and MRI may help. Mucinous cystadenomas are typically unilocular or multilocular cystic ovarian tumors with a lobulated smooth surface. They contain sticky, viscous fluid. One of the leading objectives of the treatment is to ensure fertility. To this aim, the surgical treatment of the tumor should be as conservative as possible. Choices of treatment are cystectomy, oopherectomy and salphingo-oopherectomy depending on the characteristics of the tumor. The tumor hardly ever occurs in the contralateral ovary which has been preserved. The prognosis is favourable, but recurrences have also been reported. Therefore, you should be alert to the recurrences during the follow-up.

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