

MIXED BENIGN BRENNER TUMOR WITH MUCINOUS CYSTADENOMA

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CASE : A 70 yrs old case presented with abdominal Distention gradually increased to size more than 40 wks over 5 months.

M/H : Menopausal since 25 yrs

O/H : Married since 50 yrs back, Non – Consanguinous marriage

P2L2 , TL not done

P1- F/51 yrs / FTND

P2- M/48 yrs / FTND

Past history : she is k/c/o HTN since 6 Months, not on any medication. No Any other abnormalities .

O/E: BP- 140/90 mmHg , Pulse-90/min No pallor,edema,icterus

P/A : huge abdominal mass >40wks size, Filling all quadrants of abdomen, cystic in Consistency, non tender, mobility can not be Elicited

P/S : Cx flushed with vagina

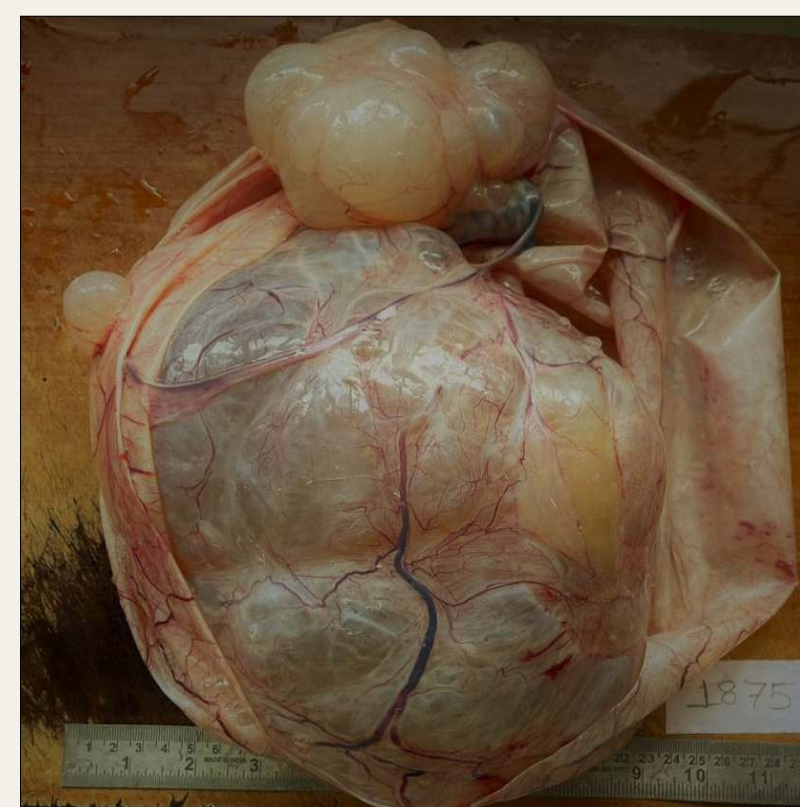
P/V: In all fornices fullness present due to large mass

Investigation :

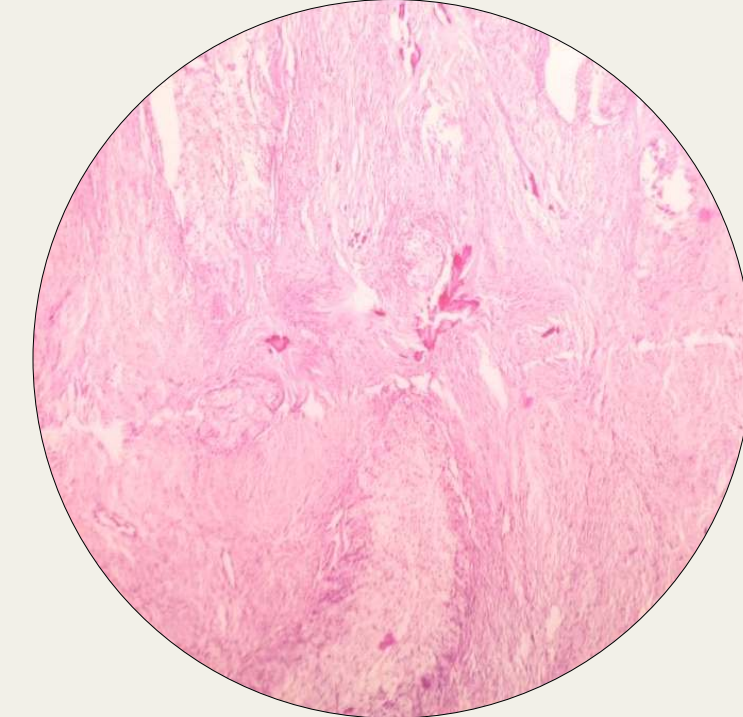
- All routine investigations were normal
- USG (Abdomen + Pelvis) shows E/O large, well defined cystic structure measuring approx. more than 20 cm noted in pelvis extending into abdomen with multiple septations and low level internal echo's within it S/O ? Serous cyst adenoma, not seen separately from right ovary. E/O hyperechoic lesion of size 2*1.5 cm noted at periphery of posterior wall s/o subserosal fibroid.
- MDCT Scan (abdomen + pelvis) shows large, well defined, smooth, thin walled (2-3 cm) homogenously hypodense, cystic lesion of approximate size 22.5*26.7*24.8 cm seen arising from the pelvis midline more on right side.

Multiple internal mildly enhancing, smooth thin septations noted. Cystic lesion extending anteriorly upto anterior abdominal wall and laterally along the bilateral flanks and superiorly extending upto the epigastric region. The bowel loops are displaced by this lesion. Small moderately enhancing solid intramural component of size 17*16mm and 35*25 mm noted at periphery. Right ovary not visualized separately from Cystic lesion. Left ovary seen separately. Uterine anterior wall moderately enhancing subserosal fibroid of size 51*46 mm noted .

- Patient underwent exploratory laparotomy with Total abdominal hysterectomy with B/L salpingo-oophorectomy through a midline incision , laparotomy did not reveal any abdominal lymphadenopathy .
- The surgical procedure was uneventful and lasted for 60 mins. Estimated intraoperative blood loss was 50cc. post- operative period was also uneventful patient was discharged from hospital on 16th post –op day.

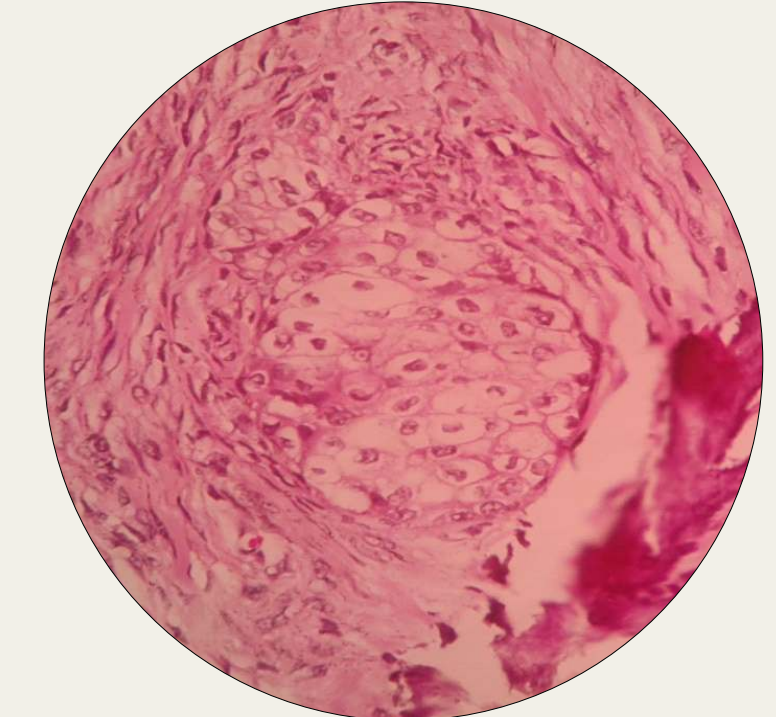


PATHOLOGICAL FINDINGS : Ovarian cyst measuring 50*41*15 cm and weighing 11.215Kg . External surface shows smooth and glistening bosselated appearance. Cut section shows predominantly Cystic with solid area. The cyst was multiloculated filled with mucinous fluid. The inner wall was smooth solid area measuring 6.5*4.5*2.5 cm . Cut section was gritty with yellowish white areas



Histological findings : Specimen confirmed **mixed Benign brenner tumor with mucinous cystadenoma** right ovary. Chronic non specific Cervicitis, atrophic endometrium, Adenomyosis- myometrium, left ovary and bilateral fallopian tubes with no Specific lesion

Peritoneal fluid cytology –
Negative for Malignancy



Microscopy: Section studied from cystic Area and with solid area shows, the Fibrocollagenous cyst wall lined with single layer of tall columnar mucin secreting epithelium and shows congested blood Vessels with spars MNCs infiltration. The Deeper Areas shows a tumor nest demarcated by bland nest of transitional epithelium. The cells are uniform in size with prominent cell border and pale to eosinophilic cytoplasm. The nuclei are oval with some having longitudinal grooves . Also noted hyalinised ovarian stroma shows multiple cyst and areas of calcification. No E/O atypia ,mitosis and architectural complexity is noted in the section studied.

DISCUSSION: Large/giant ovarian cysts are benign in most of the cases and histopathologically these cysts are either serous or mucinous^[1]. Brenner tumor of ovary is a solid ovarian tumor that is generally asymptomatic. Although they are predominantly solid on imaging and pathologic examination, association with serous and mucinous cystadenomas is up to 30%^[2]. It is generally accepted that Brenner tumors are derived from the surface epithelium of the ovary or the pelvic mesothelium through transitional cell metaplasia to form the typical urothelial-like components^[3]. The histological patterns observed in Brenner tumor are typically benign, with a few reports of borderline or malignant counterparts^[4].

Grossly benign Brenner tumors are well circumscribed, with a hard or fibromatous, gray, white, or slightly yellow cut surface. Occasionally the tissue becomes gritty because of calcific deposit. Borderline Brenner tumors are characteristically cystic and unilocular or multilocular with cauliflower like papillomatous masses protruding into one or more of the locules. Malignant Brenner tumor may be solid or cystic with mural nodules; they usually do not have any distinctive features.^[5] Microscopically, they are made of abundant dense fibrous stroma with epithelial nests of transitional cells resembling those lining the urinary bladder. The fibrous component is less prominent in borderline or malignant tumors than in benign lesions. Complex cystic tumors contain varying amounts of stroma and are more commonly found with borderline or malignant histologic findings, often in the form of papillary solid projections within a cystic mass.^[6]

Mucinous cystadenoma is a benign ovarian tumour. It is reported to occur in middle-aged women. It is rare among adolescents.^[7] or in association with pregnancy.^[8] On gross appearance, mucinous tumours are characterised by cysts of variable sizes without surface invasion. Only 10% of primary mucinous cystadenoma is bilateral.^[9] Histologically, mucinous cystadenoma is lined by tall columnar non-ciliated epithelial cells with apical mucin and basal nuclei. They are classified according to the mucin-producing epithelial cells into three types.^[10] The first two, which are always indistinguishable, include endocervical and intestinal epithelia. The third type is the müllerian, which is typically associated with endometriotic cysts.^[11]

Extremely large ovarian cysts are traditionally managed by laparotomy. But the recent advances in endoscopic surgery have offered alternative choice by laparoscopic treatment of such extremely large ovarian cysts.^[12] However, laparotomy and total excision of cysts are the choice of treatment in case of large ovarian cyst cases, until or unless prior to laparoscopic surgery ultrasound guided decompression or aspiration of the cyst is done.^[13] Surgery is essential for large ovarian tumors even if benign.^[14] Until now, there has been no randomized controlled trial for the laparoscopic management of ovarian cysts >20 cm, so laparotomy remained the ideal method for the excision of the giant ovarian cysts .

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