

A huge ovarian mucinous cystadenoma (8.5kg) leading to bilateral hydronephrosis: a case report and review of literature

Abstract

Large ovarian masses are rare in modern world due to early diagnosis, increased awareness and improved technology but still they are occasionally seen in developing countries. They are known to cause pressure symptoms to the surrounding structures. Even though they appear frighteningly large; they are amenable to surgical debulking with good results in survival and post-operative recovery.¹ This is case of 54-year old woman with huge ovarian Tumour and multiple pressure symptoms. The removal of ovarian Tumour with Total Abdominal Hysterectomy with other side removal of ovary and Fallopian tube, as frozen section study revealed as benign mucinous cystadenoma of ovary. Histopathological examination confirmed it as mucinous cystadenoma. Even though mucinous cystadenoma is rare before puberty and after menopausal though it can occur at any age. Our case emphasizes upon early diagnosis and treatment of ovarian tumour helps in avoiding complications arising from pressure symptoms such as hydronephrosis, hypertension etc.²

Keywords: mucinous, cystadenoma, laparotomy, CA125, hydronephrosis, ovarian tumour

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Introduction

The commonest tumour of ovary is epithelial tumour. They may originate from tube, endocervix, endometrium or bladder epithelium. Mucinous cystadenomas consist of 15-20% of all epithelial tumours. It's reported to in middle-aged women in India. Common between 3rd and 5th decade. They may reach enormous size filling the entire abdominal cavity.^{3,4} Sometimes they may get complicate by torsion, haemorrhage, rupture etc. hence early diagnosis and prompt treatment is key for successful management.⁵ We here by present a similar case of huge mucinous cystadenoma with multiple pressure symptoms managed successfully with surgical approach.

Case report

A 54yroid multiparous postmenopausal woman came to our gynaecology outpatient department with complaints of huge abdominal distension which gradually developed over 2years. It was associated with breathlessness, pain in abdomen, and occasional constipation since 2-3months. Patient had history of thyroid surgery 12years back for thyroid swelling. Patient was euthyroid and was not on any medications. On General examination her vitals were stable.

Systemic examination showed no abnormality in respiratory and cardiovascular system. Per abdominal examination revealed a huge mass arising from the pelvis corresponding to 36weeks of gestation extending from xiphisternum to pubic symphysis felt. It was solid to cystic in consistency with restricted mobility and no external ballotability (Figure 1). Per speculum examination revealed high up cervix. Per vaginal examination was suggestive of mass of 36weeks gestation size arising from pelvis which was solid to cystic in consistency with restricted mobility and bilateral forniceal fullness was present. Ultrasound examination was suggestive of large 33x28x21cm of left ovarian complex cyst with bilateral

hydronephrosis. Uterus and right ovary and rest of abdominal organs were normal size. Computed Tomography scan showed large complex cystic mass of size 18.6cmx26.1cmx29.1cm with multiple septae within arising from pelvis extending into the abdomen displacing and pressing abdominal organs in vicinity like bowels, bladder, ureter, blood vessels etc. There were areas of septal calcifications within. Both ovaries were not seen separately (Figure 2). Contrast administration showed peripheral and septal wall enhancement. No solid enhancing component seen. All findings were suggestive of ovarian neoplasm likely benign in origin but needed confirmation by biochemical markers and histopathological examination.

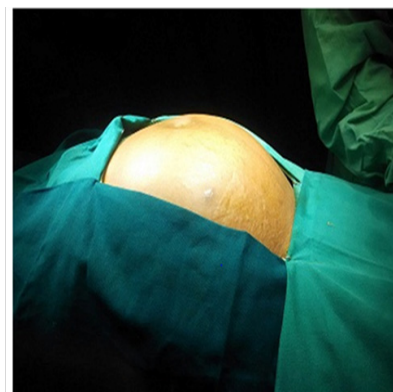


Figure 1 Patient with large lump of 36 weeks gestation size.

Her tumour marker levels were CA 125-15.77IU/ml, AFP -2.35IU/ml (0.6-2.6), CEA -2.31ng/ml all within normal limits. Thyroid profile was within normal Limits. T3-100ng/dl (82-179 normal), T4- 7.47ug/dl(5-12.5), TSH- 5.65mIU/ml (0.4-4.0).

Exploratory laparotomy was done and In situ findings showed

a large grayish white smooth mass of 30cmx25cmx25cm size huge tumour of ovary extending from pelvis reaching to xiphisternum (Figure 3) Solid to cystic in consistency, surface was smooth with restricted mobility. Ovarian mass was explored out, pedicles traced and dissection of ureter done, pedicles clamped and ovarian mass was excised and sent for frozen section which reported as mucinous cystadenoma of ovary. Total abdominal hysterectomy with right salpingoophorectomy done. On Gross tumour weighed to 8.5kg (Figure 4).

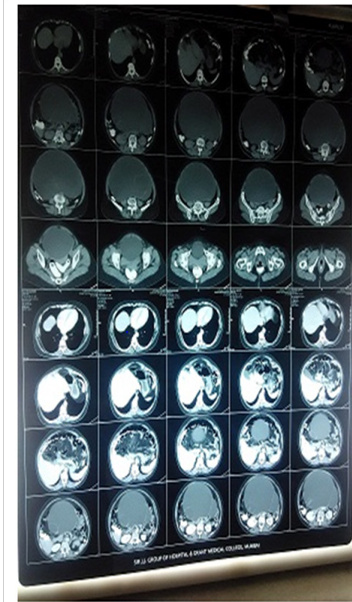


Figure 2 CT scan view of large ovarian mass.



Figure 3 Intra operative view of huge ovarian mass.

Cut section showed thick brownish coloured fluid oozing out from multilocular cyst was seen. Microscopic examination of serial sections revealed a cyst wall lined by tall columnar epithelium with vacuolated cytoplasm. At places, the epithelium shows papillary projections and stratifications. The subepithelial tissue showed fibrocollagenous tissue and mixed inflammatory infiltrate. Few of the cysts are dilated and show mucin in the lumen. There was no atypia or malignancy. Final histopath report confirmed diagnosis of mucinous cystadenoma of ovary. Post operatively patient recovered well with no complications. Patient was post operatively stable and healthy and discharged.



Figure 4 8.5kg of huge ovarian mass.

Discussion

There are 4 major categories of ovarian tumor:

- i. Epithelial tumor (65%-75%) Serous or Mucinous cystadenoma or carcinoma, Clear cell carcinoma, Brenner tumor.
- ii. Germ cell tumor (15%) Dysgerminoma, Embryonal cell cancer, Choriocarcinoma, Teratoma.
- iii. Sex cord stromal tumor (5%-10%) Granulosa cell tumor, Thecoma, Fibroma.
- iv. Metastatic tumor (10%) - uterine, stomach/colon, breast, lymphoma.

These tumors are usually evaluated using Ultrasound, CT scan, MRI. These ovarian tumors may be multiseptated, cystic masses with thin walls. They may contain varying amounts of solid tissue which consist of proliferating stromal tissue, papillae or tumor malignant cells. Tumor marker helps us to detect origin of tumor. Mucinous cystadenomas are divided into three categories; Benign, Borderline, and Malignant. Survival is largely dependent on the histology of the tumor, with a 10 year survival rate of 100% for benign tumors, 60% for borderline tumors and only 34% for the malignant subtype.

Benign mucinous tumors tend to present earlier, while malignant tumors are seen often late in life. Mucinous tumors are the commonest large ovarian tumors. They grow into enormous sizes and are the largest gynaecological tumors. They may macroscopically reach massive dimensions like in this patient it weighed 8.5kg. They are usually asymptomatic and the patient presents with abdominal swelling because of its size. Depending on its size, if very large produces pressure symptoms such as increased urinary frequency, dull abdominal pain, respiratory embarrassment and oedema or varicosities in the lower limbs. Urinary symptoms arise from partial occlusion of the ureter at the brim of the pelvis since this obstruction leads to stasis of urine and consequent urinary tract infection. Some

gastrointestinal symptoms may be present. This patient presented with increasing abdominal distension with pressure symptoms like respiratory compromise, abdominal pain, disturbed bladder and bowel habits. Modern methods of investigation particularly ultrasonography can identify the nature of the tissue as in this case. A lining of tall columnar epithelia cells with apical mucin and the absence of cilia histologically characterize benign mucinous tumours. Laparotomy with frozen section is the standard treatment in these patients.⁶ In case of very large and suspicious mass, the mass is removed intact without spillage but this may necessitate the use of very large abdominal incision. The reason for this precaution is to prevent spillage of mucinous material within the peritoneal cavity and possible development of Pseudomyxomaperitonei. Conservative procedures such as ovarian cystectomy may be preferred in patients with ovarian tumours who desire to retain their fertility. However when faced with a huge mass saving the ovarian tissue may be difficult. It is difficult to shell out the cyst from the ovarian tissue and also if the cystectomy procedure is not completed thoroughly, recurrences may occur.

Conclusion

These giant tumours are associated with pressure symptoms, urinary tract changes, respiratory embarrassment and debilitation. This case emphasises that while operating on such huge tumour care has to be taken to manage these complications as well as the problems associated with sudden decompression.⁷ Our case also emphasises that management of ovarian cyst depends on the patients age, the size of the cyst and its histopathological nature for large ovarian masses with a risk of malignancy we suggest laparotomy and intraoperative frozen section.⁸

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Conflict of interest

The author declares no conflict of interest.

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