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Case Report

A giant ovarian tumor in perimenopausal women: A case report and review of literature

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ABSTRACT

Aim: To remind clinicians of the challenges in diagnosis management, and precautions to be taken when performing surgery for giant ovarian tumor.

Case: Our reported case is a 50-year old multiparous perimenopausal woman presented with marked progressive abdominal distension, difficulty in breathing and amenorrhea at the gynaecology OPD General Hospital, Sanjay Gandhi Postgraduate Institute of Medical Sciences Lucknow. The tumor was removed by laparotomy without any spill and her preoperative and Postoperative periods were uneventful.

Materials and Methods: The details were collected by history-taking, clinical examination, laboratory investigations, abdominal ultrasonography, CECT abdomen and by histopathological study of the excised surgical specimen.

Results: The case was reported as a huge mucinous cystadenoma of ovary with good surgical outcome.

Conclusions: Such huge ovarian tumor is rare now a days because of awareness and accessibility to better imaging modalities. These tumors are potentially dangerous in its massive form if not timely diagnosed and managed. They have excellent surgical results and survival rates.

Key message: Early detection of ovarian tumor is the key to success.

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1. Introduction

Ovarian mucinous cystadenoma is a benign tumour that arises from the surface epithelium of the ovary. It is known for their potential to grow to massive proportions. About 80% of mucinous tumours are benign, 10% are border-line and 10% are malignant.¹ They are usually unilateral only 5% presenting bilaterally. Peak incidence occurs among women between 30 to 50 years of age.¹

Mucinous ovarian tumors are among the most difficult ovarian neoplasms for surgical pathologists to interpret² and accounts for account for 15% of ovarian neoplasms.¹ They usually present as a large cystic mass, often multiloculated, containing sticky gelatinous fluid. In most cases they

present with pressure symptoms, occasionally they reach such enormous size without any significant symptoms. Management of such case depends upon age and parity of patient, size of cyst and the histopathology of cyst.¹

Here we present a case where the patient could not access medical care, which led to the presentation of a very large mucinous cystadenoma which responded remarkably to surgical excision.

2. Case Report

A 50 years old, mother of two, resident of north India, housewife, presented to gynaecology out patient department with complaint of heaviness and progressive abdominal swelling since 7 months, difficulty in breathing and amenorrhea since 4 months, the swelling was accompanied by dull aching pain in back and breathlessness. There was

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no significant history of gastrointestinal disturbances, no past history of any medical disease or surgery. There was no family history of breast, ovarian or uterine malignancies. Patient took homeopathic treatment for 7 months at local place but had no relief, and referred to gynecological OPD of Sanjay Gandhi institute of medical sciences, Lucknow.

On evaluation, she had a normal breast and thyroid examination. Her blood pressure was elevated (160/90 mm Hg) and ECG was abnormal, an Echocardiography done after cardiac consultation which showed normal study. Pulse rate and body temperature were normal. Her pulmonary, cardiorespiratory and neurological functions were normal. Per abdominal examination revealed an infra umbilical mid-line scar of previous two cesarean sections with massive abdominal distention from pelvis to epigastrium (Figure 1), with evident dermal striae, no abdominal tenderness and had a positive fluid thrill test. On per vaginal examination cervix was firm, uterus exact size could not be made out, fullness in cul de sac & both adnexae.



Fig. 1: Preoperative picture of giant ovarian tumor

Her ultrasound report of whole abdomen showed a large cystic mass filling the abdomen cavity of size 26 cm in diameter with bowel displaced in posterior and upper abdomen. Uterus and right ovary seen normal but left ovary not visualized. Her CECT report of abdomen showed a large cystic mass of around 28 x 11 cm arising from ovaries. Bilateral ovaries could not be separately visualized from the lesion, the lesion was causing mass effect in form of posterior displacement of small and large bowel loop, and anteriorly lesion is closely abutting abdominal muscles, lesion was closely abutting fundus of urinary bladder with loss of perirectal fat pad however there was no evidence of intraluminal extension. Laterally the lesion was reaching up to bilateral lateral pelvic wall, however fat planes are well maintained. Her routine investigations and tumor markers including CA-125 and CEA were within normal range.

Case was discussed in a multidisciplinary team that included gynecological oncologists, radiation oncologists, general surgeons, anesthetists. They considered her a high

risks case because of possibility of hemodynamic instability and bleeding during surgery and the postoperative risks of deep vein thrombosis, pulmonary embolism and need of ventilator support. Despite the risk staging laparotomy was decided in this case after proper counseling.

On exploratory laparotomy a huge ovarian mass of smooth surface and cystic in nature of around 35-40 cm was seen arising from left ovary and occupying whole abdomen from pelvis up to diaphragm. The cyst was displacing liver, spleen and bowel loops (Figure 2). After proper surgical evaluation, for obvious signs of malignancies complete removal of cyst (Figure 3) followed by total abdominal hysterectomy and bilateral salpingoopherectomy was performed. Uterus along with Right ovary and tubes were normal. The lymph nodes were not involved. Resected left ovarian mass was weighted 11 kg. Patient lost 11kg of weight post surgery (pre-surgery weight = 68 kg and her postoperative weight = 57 kg). Histopathology of resected ovarian specimen turned out to be mucinous cystadenoma of ovary. Patient stood the surgery well with no intra operative and postoperative complication.



Fig. 2: Intraoperative picture of ovarian mass arising from left ovary, uterus both tubes and right ovary appears to be normal

3. Discussion

Giant Ovarian tumors (GOCs) are defined as those tumors whose size is >10cms in diameter,³ some define it as those reaching up to umbilicus⁴ but these have become rare in current scenario due to availability of better imaging techniques.

Mucinous tumors of the ovary represent a spectrum of neoplastic disorders, including benign mucinous cystadenoma, pseudomyxoma peritonei, mucinous tumors of low malignant potential (borderline), and invasive mucinous ovarian carcinoma. These tumors are related closely to each other. Benign mucinous cystadenomas



Fig. 3: Gross picture of the intact ovarian tumour shows smooth outer surface without external growths (40cm x 35 cm in diameters and 11.2 kg in weight).

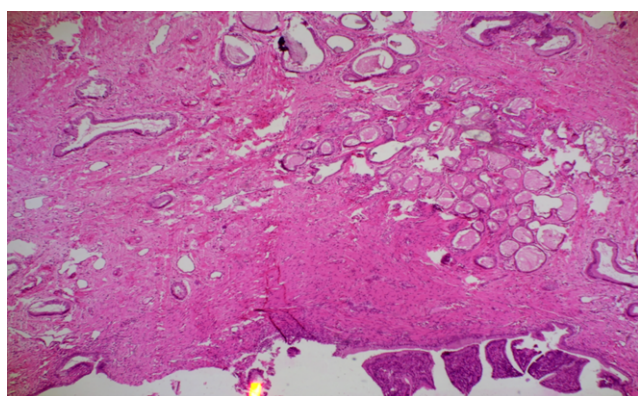


Fig. 4: Histopathology showing mucinous cystadenoma

make up the majority (81%) of mucinous tumors, as the present case also belongs to this category. These tumors can grow to extremely large sizes, as was the case of our patient. They usually occur as large multicystic masses with mucus-containing fluid, presenting commonly in reprod. The present case also comes in the same age group. The large size can itself be suggestive of mucinous histology. As in our patient's case, most mucinous tumors are typically unilateral.⁵

Consideration also needs to be given to the fact that though benign, borderline to invasive disease may exist as a continuum in a cystadenoma. Only a limited number of sections can be evaluated intraoperatively because these tumors are quite large; hence, this may contribute to inaccuracies in diagnosis with frozen sections. We subjected the whole tumor mass for histopathological examination. Weight of tumor is also related with nature of tumor. A

review of 20 cases with lesions exceeding 20 kg confirmed a low malignancy rate.⁶ The tumor of our case was weighed 11 kg.

This patient presented to the tertiary hospital after taking treatment for 7 months at local level and being referred to our hospital once she has no relief. In low-resource settings, late presentation is a common feature due to socioeconomic factors as well as cultural beliefs and fear of surgery leading most to present when the symptoms become unbearable.⁷ Exactly same situation happened with our case. It is therefore crucial that community health workers be involved in lookout and follow-up of community members with unusual abdominal swellings.

The gold standard of treatment of any ovarian mass includes intact removal of the involved adnexa with intraoperative pathological evaluation-laparotomy, total hysterectomy, bilateral salpingo-oophorectomy, and staging procedure, including lymphadenectomy.⁸ Spillage of these cyst may lead to pseudomyxoma peritonei. Surgery in patients with such huge masses has a high risk for fatal complications described in the literature include pulmonary and cardiac failure. Conservative procedures such as ovarian cystectomy may be preferred in patients with ovarian tumours who desire to retain their fertility. Since our case was perimenopausal lady the decision for complete surgery was clear 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.

An abdominal wall reconstruction might be necessary after tumor excision, because of the laxity and redundancy of the skin.⁹ We planned reconstructive surgery but could not do because of financial issues.

In such case part of the patient presurgery preparation, included lung preparation to improve pulmonary function postsurgery.⁶ This may involve incentive spirometry to breathe deeply and exercise the lungs before and after surgery¹⁰ for better outcome.

4. Conclusion

In today's modern era giant ovarian tumors are rare due to better imaging modalities, early detection and appropriate management. Benign mucinous cystadenomas can grow to massive sizes and provide a huge surgical management challenge. Community health workers in developing countries can be involved in scouting such cases to avoid delays in care.

5. Source of Funding

None.


6. Conflict of Interest

None.

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