

Giant mucinous cystadenocarcinoma of ovary: A case report and review of literature

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ABSTRACT

Giant cystadenocarcinomas of the ovary are rarely described. Huge ovarian masses are mostly benign, but malignancy should be ruled out by investigations and clinical assessment. Giant cysts require resection because of compressive symptoms or risk of malignancy and their management invariably requires laparotomy to prevent perforation and spillage of the cyst fluid into peritoneal cavity. Here, we present a case of a 42-year-old female with severe and rapidly growing abdominal distension operated for exploratory laparotomy for cystic mass excision. On histology, mass was found to be metastatic mucinous cystadenocarcinoma with omental metastasis. The diagnostic and management challenges posed by this unexpected and unusual presentation of an ovarian cystadenocarcinoma are discussed. The main aim of this report is to draw attention to huge ovarian epithelial cysts with unsuspected presentation contributing to a decrease in any underdiagnosis, misdiagnosis, and mismanagement that might occur.

Key Words: Chemotherapy, giant cyst, giant mucinous cystadenocarcinoma, laparotomy, metastasis, ovarian tumor

INTRODUCTION

In the modern era of medicine, such huge mucinous ovarian tumors have become rare in the current medical practice, as most of the cases are diagnosed early during routine gynecological examinations or incidental finding on the ultrasound examination of the pelvis and abdomen.^[1] Most of the patients who have large tumors present mainly with the pressure symptoms over the genitourinary system leading to urinary complaints and also pressure over respiratory system leading to respiratory embarrassment. The role of imaging modalities such as computed tomography (CT) scan and magnetic resonance imaging

gives better idea about the extension of the tumor in the various quadrants of the abdomen and consistency of the tumor. Management of ovarian cysts depends on the patient's age, the size of the cyst, and its histopathological nature. Conservative surgery as ovarian cystectomy and salpingo-oophorectomy is adequate for benign lesions. Four frozen section is very important to know the malignant variation of this tumor and that helps in the management of the patient. Surgical expertise is required to prevent complications as in huge tumors the anatomical planes get distorted.^[2] Here are four major categories of ovarian tumors:

1. Epithelial tumors (65-75%) — serous or mucinous cystadenoma/carcinoma, clear cell carcinoma, and Brenner tumor;

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2. Germ cell tumors (15%) — dysgerminoma, embryonal cell cancer, choriocarcinoma, and teratoma;
3. Sex-cord-stromal tumors (5-10%) — granulosa cell tumor, thecoma, and fibroma;
4. Metastatic tumors (10%) — uterine, stomach, colon, breast, and lymphoma.^[3]

Extra-large benign and malignant cysts of the ovary^[4] are uncommon and involve diagnostic and management challenges, and determination of cancer antigen (CA)-125 can help to identify epithelial tumors of the ovary. Giant mucinous cystadenocarcinomas are very rare with a huge abdominal enlargement. The epithelium of the cysts is usually cylindrical and mono- or multi-stratified and cuboidal epithelium is due to the pressure inside the cyst. The classical cells show clear cytoplasm and a hyperchromatic nucleus at the base. Giant mucinous cystadenocarcinomas are very rare. This report concerns an unsuspected giant mucinous ovarian cystadenocarcinoma in a 42-year-old woman with a huge abdominal enlargement. The main objective of this report is to call attention to ovarian epithelial cysts in the outpatient clinics and primary care services, contributing to a decrease in any underdiagnosis, misdiagnosis, and underreporting that might occur.

CASE REPORT

A 42-year-old multiparous woman came with rapidly increasing severe distension of abdomen and pain in abdomen since 6-8 months. The patient was postmenopausal since 2 years and there was h/o cholecystectomy done 2 years back otherwise there was no other significant h/o any medical or surgical disorder in the past. On examination, her general condition was fair, thin built, and her weight was 50 kg. Vitals were stable, pulse was 86 beats/min, and blood pressure was 120/80 mmHg. Respiratory and cardiovascular system examination findings were normal. Per abdomen examination and inspection, there was huge distension all over the abdomen and skin over the abdomen had thinned and shiny. On palpation, the tumor 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 fossa [Figure 1]. Her hematological investigations were within normal limits. Her liver, renal functions were also in normal values. Her CA 125 levels were 990 IU/ml. Ultrasound examination was suggestive of cystic mass of size 31 cm × 13.2 cm × 35 cm cystic lesion, arising from right adnexa with internal septations and calcifications within. It was extending from supraumbilical region to pelvis. Right ureter, seemed to be involved. CT of abdomen + pelvis showed solid cystic mass lesion of size 21.9 cm ×

18.5 cm × 12.3 cm extending from L2 to S1S2. Left ovary was obscured.

On opening abdomen *in situ*, findings were evidence of huge left ovarian tumor [Figures 2-4], cystic in nature, of 6 kg weight, and clamping of left ovarian pedicle done. Ovarian mass excision done and sent for frozen section report was mucinous cystadenocarcinoma of the left ovary. The patient was operated for exploratory laparotomy with debulking of left ovarian mass with total abdominal hysterectomy (TAH) with bilateral salpingo-oophorectomy with complete omentectomy. Her final histopathology report was suggestive of mucinous cystadenocarcinoma of right and left ovary, with left ovary showing focally capsular breach and right ovary capsule intact. Omentum shows metastatic deposits. All pelvic lymph nodes show reactive hyperplasia. There was no evidence of malignancy.

The patient withstood the surgery well with no intraoperative or postoperative complications. On day 10 of surgery, complete suture removal was done and wound was healthy. Hence, patient was discharged and referred to oncology department for further management. The patient received four cycles of adjuvant chemotherapy and was discharged in healthy condition.

DISCUSSION

In young people,^[5] the majority of ovarian cysts decreases in size or even disappears and therefore should be dealt with a careful expectant follow-up by ultrasonography. Benign cysts of <8 cm are conservatively managed, but cystectomy is indicated for cysts over 5 cm in postmenopausal women. Giant cysts require resection because of compressive symptoms or risk of malignancy and their management invariably requires laparotomy to prevent perforation and spillage of the cyst fluid into the cavity. Clinically, the differential diagnosis of large abdominal masses should include uterine enlargement (pregnancy and fibromyomatosis); pelvic endometriosis (pregnancy and abdominal cysts); abdominal pregnancy; urinary retention (full bladder); intestinal tumors; hydronephrotic kidney; pelvic retroperitoneal tumor; and accentuated obesity.

Women with abdominal-pelvic masses constitute a challenging condition in general practice because the clinical features and findings from physical examination are usually nonspecific. Moreover, concomitance with overweight and obesity can be additional diagnostic pitfalls. Imaging studies of the abdomen can contribute in ruling out the main alternative hypotheses. Although tumor markers can be a useful tool for differential



Figure 1: Preoperative picture of giant ovarian tumor



Figure 2: Intraoperative picture of mucinous cystadenocarcinoma of ovary

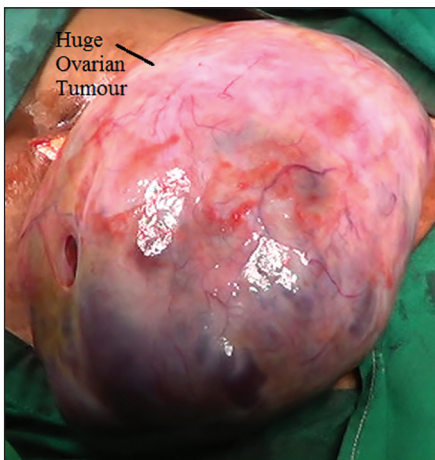


Figure 3: Intraoperative picture of ovarian tumor

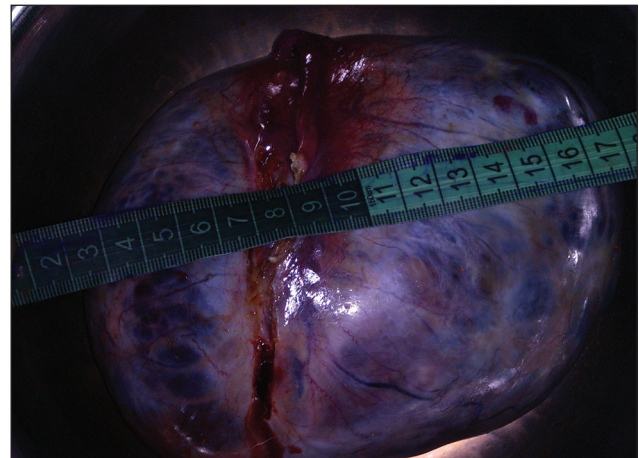


Figure 4: Gross specimen of mucinous cystadenocarcinoma of ovary

diagnosis of malignant cysts, some authors have described elevated levels of these markers in patients with benign tumors.

Major diagnostic difficulties are often posed if inner nodules are disclosed in these cystic cavities because this finding must be considered as indicative of a malignant tumor. In our present case study, the giant ovarian tumor was multilocular with diverse inner solid masses, and the histopathology evaluation characterized the diagnosis of cystadenocarcinoma. In our case, the woman described a progressive infraumbilical swelling and abdominal pain. Malignant tumors (anaplastic carcinoma, carcinosarcoma, fibrosarcoma, rhabdomyosarcoma, undifferentiated sarcoma), mixed nodules, and leiomyoma among others, were ruled out.

Based on cell origin, ovarian tumors are classified as Germ cell tumors (undifferentiated and extraembryonic); stromal tumors (granulosa-theca, Sertoli, and Leydig cells); and epithelial tumors (cystadenoma, borderline cystadenoma, and cystadenocarcinoma).

The interval between the symptoms' onset and clinical presentation of ovarian cancer is a major concern and diagnostic challenge involving this malignancy. Ovarian tumors are included among malignancies with shorter symptom-to-visit interval. Nevertheless, symptoms frequently develop insidiously and with intervals usually longer in the localized disease. Noteworthy is that delay in ovarian cancer detection has a direct relationship with poor outcome, but some examples of longstanding localized evolution have been reported.

CONCLUSION

Despite uncommon presentation and unexpected diagnosis, the cystadenocarcinoma was removed intact, successfully without any spillage or spread. Our present case study gives evidence of unsuspected malignant giant abdominal tumor in a woman. Our case report contributes to an increase in the suspicion index about uncommon conditions.

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Conflicts of interest

There are no conflicts of interest.

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