

A Big Lump in A Bump - Giant Endometrioid Ovarian Adenocarcinoma – A Case Report

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Abstract

Endometrioid carcinoma accounts for 10% of the ovarian cancer and it's the second most common type of epithelial ovarian cancer. We hereby present a rare case of giant abdominopelvic mass that occurred in a 41 year old multiparous lady with retinitis pigmentosa which was assessed by ultrasound and Computed tomography. She underwent primary cytoreductive surgery with frozen section with bilateral pelvic lymph node dissection with infracolic omentectomy. In histopathology diagnosis of ovarian cancer with endometrioid pattern was made. Diagnosis play an important role in detection, staging and planning of treatment for adnexal neoplastic masses.

Keywords: Endometrioid Adenocarcinoma, Adenocarcinoma Ovary.

Introduction

Epithelial ovarian cancer accounts for 90% of the ovarian cancer. They are further subclassified into serous, endometrioid, mucinous, clear cell and papillary. Endometrioid ovarian cancer are classified under epithelial ovarian tumour and accounts for 10% of all primary ovarian tumour. It closely resembles endometrial endometrioid adenocarcinoma. They are further subclassified into benign, borderline and malignant. Most

of the cases are invasive and malignant. It can result from degeneration of an endometriotic cyst and can be associated with endometriosis. It can be bilateral in 50-60% cases. Giant endometrioid adenocarcinoma is very rare. Thereby we report a giant endometrioid ovarian carcinoma that occurred in a 41 year old lady with significant increase in abdominal circumference.

Case Report

A 42-year-old perimenopausal multiparous lady who is a known case of retinitis pigmentosa got admitted to the hospital with complaints of abdominal distension and discomfort for six months with history of significant loss of weight and appetite for 4 months duration. Patient was poorly built and nourished with a BMI of 22 kg/m². On general examination, mild pallor and bilateral grade 2 pitting pedal edema was present. There was no regional lymphadenopathy. Breast, thyroid and systemic examination were normal. On abdominal examination there was a huge mass corresponding to 36 weeks gravid uterus size occupying all the quadrants of the abdomen, firm in consistency and fluid thrill was present suggestive of ascites. Per vaginal examination showed bilateral forniceal fullness. Per rectal examination was normal. Hemoglobin was 7.3g/dl, CA-125- >5000IU/dl. CECT

abdomen and pelvis showed bilateral multiloculated adnexal mass of size 31.7 x 22 x 25.7 cm and 14.1 x 12.1cm with enhancing solid components in it, multiple thick septations, uterus normal size, right hydronephrosis and moderate ascites. The above findings suggested the probability of the mass being serous cyst adenoma ovary. Ascitic fluid tapping was done under ultrasound guidance which showed presence of malignant cells. Other preop workup done were normal

CECT Abdomen & Pelvis

After optimizing her general condition, the patient was taken up for primary cytoreductive surgery which includes total abdominal hysterectomy with bilateral ovarian mass resection, bilateral pelvic lymphadenectomy, infracolic omentectomy and pouch of douglas peritoneum excision. Hemorrhagic ascites of around 1 litre noted and suctioned out. Intraoperatively 40 X 30 X 30 cm hyper vascular tumour of right ovarian origin seen extending upto epigastrium adherent to the omentum and small bowel was noted and a left ovarian mass 10 X 15 cm adherent to the serosa of the sigmoid colon and rectosigmoid was also noted. There was no evidence of peritoneal disease. Surgical staging was stage III C. The ovarian masses were sent for frozen section and it was reported to be epithelial adenocarcinoma ovary with predominant endometrioid type.



Figure 1: Showing a huge abdominal mass with massive ascites

On gross examination of the right ovarian mass weighing 13 kg which was capsulated with bosselated surface, papillary excrescences were noted and demonstrated presence of ovarian surface involvement. On cut section variable solid-cystic areas and variable amount of necrosis. Examination of the left ovarian mass was like the same above but it weighed around 700 gms. Tissue samples were fixed in 10% formalin and embedded in paraffin. Sections were stained with hematoxylin and eosin.



Figure 2: Right ovarian mass with bosselated surface with thick septae. The ovarian cyst is multiloculated with solid and cystic areas



Figure 3: Left ovarian mass – cut surface showing solid cystic mass in enlarged ovary & cystic areas filled with brown viscous fluid

Histologically, lesion was composed of confluent villoglandular pattern having back to back glands, fused and dilated glands with papillary projections. Cribriform and branching patterns were also noted with glands lined by tall columnar cells. Tumour nucleus was elongated,

hyperchromatic. Abundant mitotic figures were present with subnuclear vacuolation with malignant cells invading the stroma. The tumor was reported as grade 3 poorly differentiated endometrioid type of ovarian adenocarcinoma. Lymph node were free from tumour deposits. Abdominal fat showed minimal foci of endometriosis. She did not develop any cardiorespiratory problem in the postoperative period.

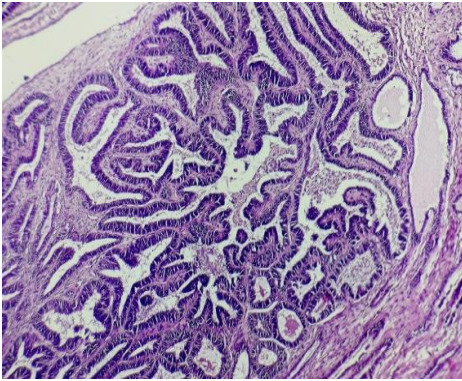


Figure 4: Malignant tumour with villoglandular pattern

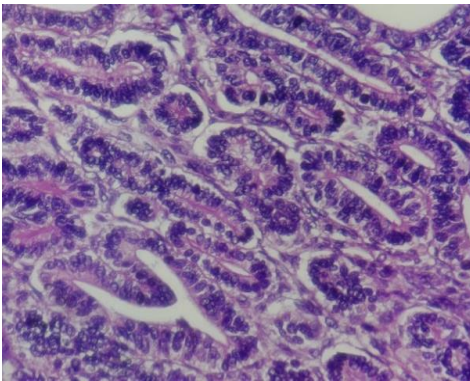


Figure 5: Columnar endometrioid tumour cells having sharp luminal surface

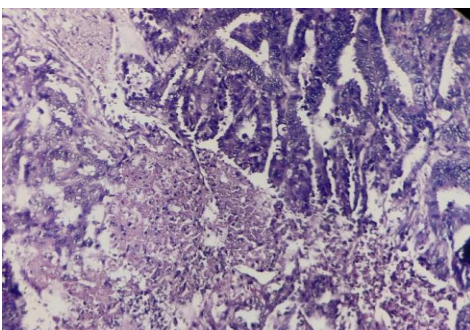


Figure 6: High grade endometrioid tumour with coagulative tumour necrosis

The patient is undergoing adjuvant chemotherapy with carboplatin and paclitaxel and is currently undergoing clinical instrument follow up without any recurrence.

Discussion

Endometrioid ovarian adenocarcinoma affects the 5th and the 6th decade. They have 40-50% association with endometrisis and 10-20% coexists with endometrial carcinoma. The predisposing factors are usually hyperestrogenism. Most of the patients are asymptomatic and present as pelvic mass to the health care centres. Pain can be present in early stage of the disease and the tumour can be incidentally detected on screening exams. However some patients can have abdominal pain, discomfort and dysuria. Ovarian endometrioid type of ovarian carcinoma accounts for two pathological types; endometrial carcinogenesis and epithelial differentiation of germinal epithelium.

Diagnostic imaging plays an important role in detection and characterization of the adnexal masses. Ultrasound is the first level imaging technique because of inexpensive costs, wide diffusion of the equipment over the territory, scarce contraindication, colour doppler and has a sensitivity of 84% and precision of 82% in diagnosing ovarian cancer. CT has a sensitivity of 82% and precision of 88% in diagnosing ovarian cancer. Additionally, CECT examinations also allows clinicians to evaluate the spatial and dimensional ratios through multiplanar reconstruction as well as characterize the densitometric aspect and contrastographic pattern of the neoplasm. CT also helps in detecting the advancement of the disease.

Endometrioid carcinoma has various patterns like spindle cell, ciliated cell, clear cell, oxyphilic variant which are large polygonal cell with abundant eosinophilic cytoplasm with central nuclei and prominent nucleolus. To rule out metastasis with primary tumour IHC is essential with vimentin, epithelial membrane antigen and

cytokeratin. The ovarian tumour shows positivity for cytokeratin and epithelial membrane antigen.

FIGO staging and grading of the tumour is essential for guiding patients management. The tumours are differentiated into G1- Well differentiated, G2-moderately differentiated, G3-poorly differentiated. As per FIGO stage 1 and stage 2 disease can be treated primarily by surgery. Surgery is the treatment of choice in early and as well as advanced disease. Systemic chemotherapy is administered in patients at high risk of recurrence (FIGO IA and IB G3 ; IC and II stage) and in the advanced stages (FIGO III -IV).In advanced disease neoadjuvant therapy to be considered followed by interval cytoreduction. Endometrioid ovarian cancer has a survival rate of 5-10 years.

Conclusion

Endometrioid ovarian cancer is usually associated with endometriosis. This case is presented because of its rare variety and huge mass. To our best knowledge, our case is the largest ovarian endometrioid carcinoma described in the scientific literature. The patient is currently on follow-up, in good clinical condition.

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