Abstract: Brenner's tumour is a relatively uncommon entity comprising only 1-2% of all ovarian malignancies. We report a case of a 35 year old female who presented with abdominal distension and upper abdominal pain for ten days. After thorough clinical examination and laboratory investigation she was found to have an ovarian tumour. She was taken up for surgery and found to have bilateral brenner's tumour with mucinous cystadenocarcinoma. After surgery she was started on a course of chemotherapy. This case is presented for its rarity.

Keyword: abdominal mass, Brenner's tumour, mucinous cystadenocarcinoma, ovarian tumour

Introduction
Ovarian cancer is not a single entity, but represents a spectrum of cancers involving the epithelial, sex cord stromal and germ cell origin. Epithelial ovarian cancers are the most common and present a challenge to the operating surgeon as they present at an advanced stage and are poor candidates for surgery. In contrast, other types of ovarian cancer are more localised and more amenable to surgical resection. Here we present a case of bilateral Brenner's tumour with associated mucinous cystadenocarcinoma.

Case report
A 35 year old female patient Mrs. X came with complaints of pain in the upper abdomen for ten days. The pain was a dull aching type, more in the left upper quadrant and was non-radiating. The patient also gave a history of abdominal distension gradually progressive over 3 months. History of vomiting and fever were present for two days. She was a nulliparous woman. The patient mentioned a history of menorrhagia. Otherwise her menstrual cycles were regular (once in 30 days) and lasted for 3 days. On examination the patient was moderately built and nourished. She was anemic and had bilateral pitting edema of the feet. Examination of the abdomen revealed a large mass 25 cm by 20 cm extending from the left hypochondrium to left lumbar region, a second mass 20 cm by 15 cm occupying right iliac and right hypogastric region and a third mass 6 cm by 6 cm in the left iliac region. None of the masses moved with respiration.

Consistency and borders were ill defined. There was no evidence of hepatosplenomegaly or free fluid. Rectal examination showed extrinsic compression of the right and anterior rectal wall. A mass was felt per vagina through the right fornix. Hematological investigations were within normal limits. Ultrasound of the abdomen showed a huge mass occupying the entire abdomen suggesting it to be an ovarian mass. Contrast enhanced computed tomography of the abdomen and pelvis was done. It showed a huge single heterogeneous mass (30*20*20 cm) arising from the pelvis extending up to the left hypochondrium.

CT scan
The uterus was pushed to the left side. There wasn't any evidence of vascular encasement, free fluid or lymph nodes. All this pointed towards an ovarian mass. CA 125 level was checked and was found to be greatly elevated to the level of 2857 U/ml (Normal < 35 U/ml). An exploratory laparotomy was planned and the following findings were noted: (i) A huge right ovarian mass of size 20 by 15 cm extending up to the left upper quadrant (ii) Large cystic left ovary measuring about 10 by 7.5 cm (iii) A huge fibroid of size 20 by 20 cm in the right broad ligament. (Fig. 2) There was no ascites. Omentum, peritoneum, liver, spleen and other organs appeared to be normal. Surgical staging, consisting of hysterectomy with bilateral salpingo-oophorectomy with removal of the broad ligament fibroid along with infracolicolic omentectomy was performed. The specimen was sent for histopathological examination. (Fig. 3)
Macroscopic appearance

Microscopic appearance

Biposy results came back as malignant brenner’s tumour with associated mucinous cystadenocarcinoma in both the ovaries. The swelling in the broad ligament turned out to be a leiomyoma as expected. The resected specimen of the omentum showed presence of tumour deposits. Surgical staging revealed the tumour to be T3aN0M0 (Stage IIIA). Post operative period was uneventful. CA 125 was measured again after 1 month. The value was 26 U/ml. She was started on adjuvant chemotherapy using paclitaxel and carboplatin and was advised to take 6 cycles of chemotherapy.

Discussion

The term Brenner’s tumour was first put into use by Robert Meyer in 1932. [2] Brenner’s tumour is a relatively uncommon entity constituting only around 1-2% of all ovarian malignancies. Most Brenner’s tumours are benign about 2-5% being malignant. [3] Around 8-10% of them are bilateral. The common age of presentation is around the fifth decade. In contrast to these classical presentations, our patient had a bilateral malignant Brenner’s tumour. Surgery plays three important roles in management of ovarian tumours. First, surgery permits histological confirmation of the disease. Second, surgery plays an important role in the staging of ovarian tumours as it allows us to assess the extent of spread of disease and involvement of other organs. [1] Finally, exploratory laparotomy allows debulking of the tumour, since patients who are optimally cytoreduced have better prognosis as compared to those with greater amounts of residual disease. [1][4] After completing primary surgery and chemotherapy in patients with any stage of ovarian cancer, the standard recommendation is observation with follow-up. Follow up should include a thorough physical examination, blood investigations and chest tomography if considered necessary. CA 125 should be measured in patients in whom the level was initially found to be high. [5] Patients, in whom the disease progresses during the initial therapy, should be treated by second line approaches. An attempt should also be made to screen the patient for any other coexisting malignancies (e.g. colorectal) and also screen the family members of the patient. Our patient remains well on the latest follow up. This case is presented for its rarity in literature.

References


