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BORDERLINE TUMOR OF THE OVARY: A CASE REPORT AND REVIEW OF LITERATURE

General Surgery

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KEYWORDS

INTRODUCTION

Borderline ovarian tumors are mainly a group of epithelial ovarian tumors usually presenting at a younger age at an early stage with higher rates of curability. (1) " Carcinoma of low malignant potential" was a term coined by the International Federation of Gynaecology and Obstetrics in 1971. Subsequently, The World Health Organisation (WHO) named these tumors as "Borderline ovarian tumors" in 1973 which is used until today. (2) These tumors lie in between ovarian cystadenomas (benign) and ovarian cystadenocarcinomas (malignant).

The tumors on histology showed atypical epithelial proliferation without stromal invasion with an overall good prognosis. (2)

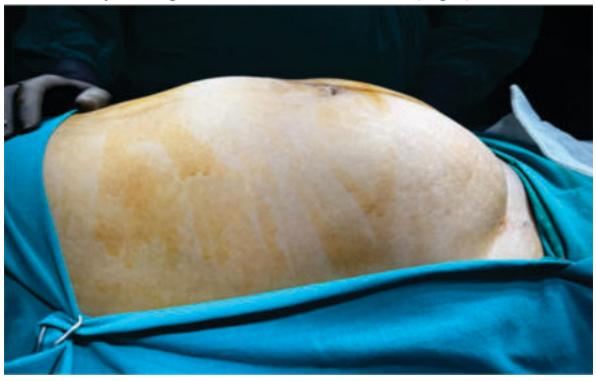
Extensive studies amongst Indians have still placed these tumors in the grey zone due to lack of clarity in the behaviour of the tumor considering the presentation in the younger age group and also keeping in mind the fertility sparing component in the treatment.

Case Presentation

A 43 year old female, resident of Mumbai, presented to the Emergency Department with complaints of Abdominal Lump since 2 months. It was associated with fullness and discomfort. There was no associated nausea, vomiting, fever, pain or change in bowel habits. She had a history of Exploratory laparotomy with left ovarian cystectomy with oophorectomy 2 years ago. She did not have addiction history.

Menstrual History- Regular, 28-30 cycles, Moderate flow
Obstetric History- 3 Full term Normal delivery

There was no significant familial history of similar complaints.
On Examination, patient was vitally stable with distended abdomen mainly in the epigastric region with no tenderness, guarding or rigidity. Auscultatory findings were within normal limits. (Fig-1)



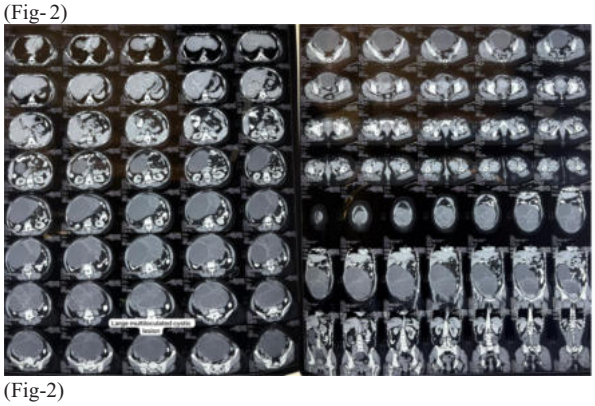
(Fig-1)

Her Routine Blood Investigations (Complete Blood count, Electrolytes, liver and renal function tests, erythrocyte sedimentation rate) were within normal limits

Tumor markers Carcino embryonic antigen (CEA)- 0.66, Lactate Dehydrogenase (LDH) - 128.7, CA 125- 20.7, Alpha feto protein (AFP)- 1.1, Beta HCG- 0.27 were all within normal limits

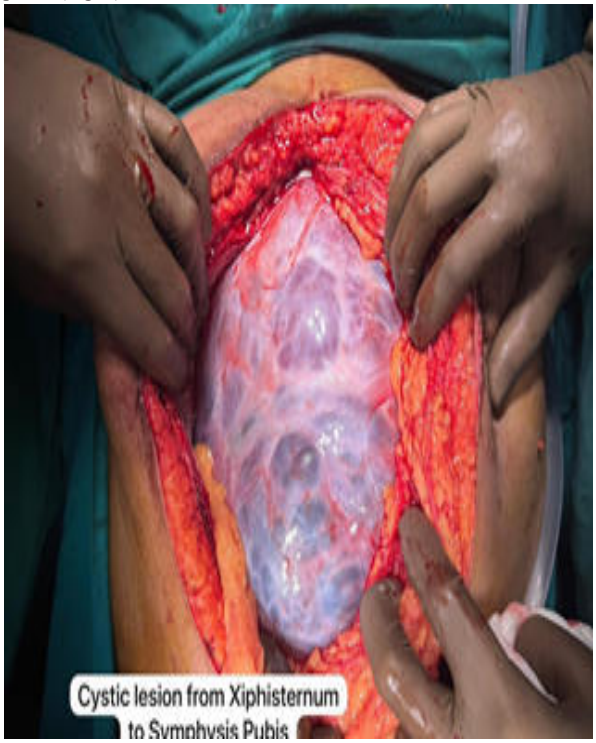
Contrast Enhanced CT Scan (CECT) was done that was suggestive of Large, well defined, multi loculated complex cystic lesions (14.9 x 20.3 x 28.1cm) from right adnexa with mass effect over peritoneal structures and bowel loops.

Volume 3.5 L, most likely suggestive of Ovarian Epithelial Neoplasm. (Fig- 2)



(Fig-2)

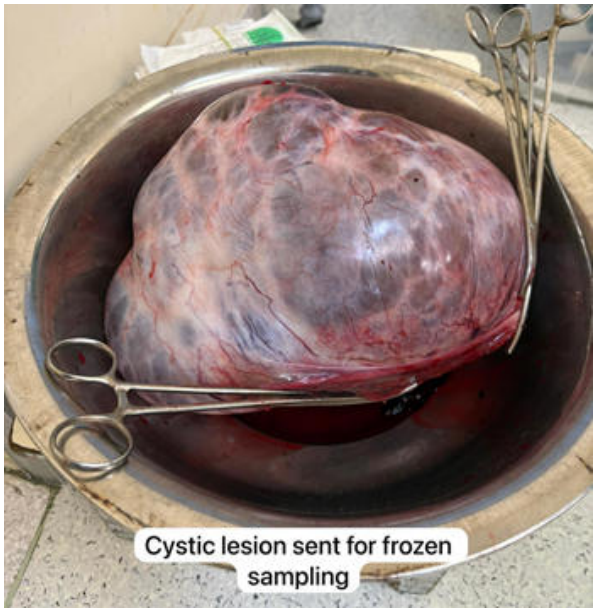
On Exploratory Laparotomy, a large 15 x 20 cm cystic lesion of right ovary was seen extending from the xiphisternum to the symphysis pubis. (Fig- 3).



(Fig-3)

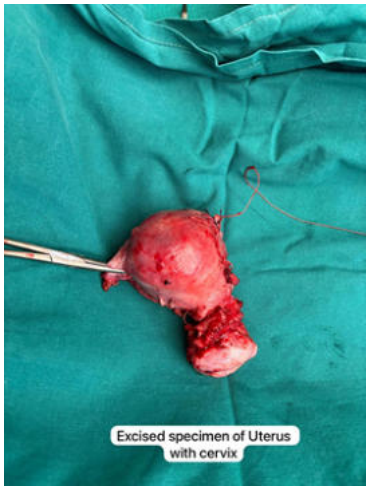
It was excised at the pedicle and sent for frozen section that was suggestive of Mucinous neoplasm, hence decision was taken to do Hysterectomy with Omentectomy. (Fig-4, 5)

(Fig-4)



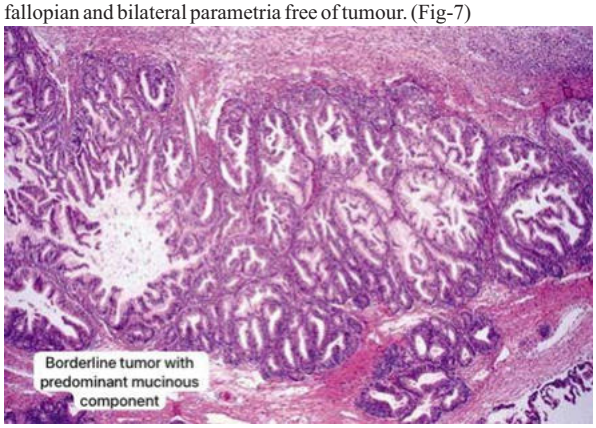
(Fig- 5)

She underwent hysterectomy with omentectomy which was sent for histopathology. (Fig-6)



(Fig-6)

The findings were suggestive of Mucinous Borderline tumor (Endocervical type) with microinvasive carcinoma with omentum, fallopian and bilateral parametria free of tumour. (Fig-7)



(Fig-7)

DISCUSSION

Borderline tumours are usually difficult to diagnose clinically and usually present as abdominal girth and abdominal mass and most of the patients usually remain asymptomatic (3).

The etiology of this is usually the same as other ovarian tumours, some mucinous tumours are attributed to be of appendicular origin (metastasis).

Other factors include- oral contraceptive uses, age of menarche, first pregnancy, menstrual history, smoking history, familial history of ovarian cancer.

There are different types of borderline ovarian tumours with majority being of the Serous variant followed by mucinous variant. Other lesser known variants include- Endometroid, Clear cell, Seromucinous and borderline Brenner tumours. (4) Most of these tumours usually have a normal CA 125 level and are diagnosed histopathologically. They are mainly detected at Stage 1 and have a good outcome. (5)

The management primarily was Hysterectomy with bilateral salpingo-oophorectomy in patients with completed family. In younger patients where fertility was to be preserved, cystectomy sparing the ovary and uterus could be attempted with serial follow up with CA 125 levels every 3 months for first 2 years and every 6 months for 3 years and yearly henceforth with a longer follow up. In cases of Recurrence, Cyto reduction produced the desired outcome and results. (6)

The lack of preoperative diagnosis and the uncommon nature of the borderline neoplasms of the ovary puts the whole management process in the grey zone. (7)Despite this, Most of these tumours responded to just surgery with subsequent follow up without the need for peri-operative chemo-radiation. More than 90% of the tumours showed Diploid DNA carrying excellent prognosis and reduced mortality rates. (8) Considering the fertility aspect as well, patients on hormonal therapies including ovulation induction therapies post surgery had minimal recurrence and did show good survival rate. (9)

CONCLUSION

Borderline Ovarian tumours usually hold excellent prognosis and the most common treatment modality includes Surgery. In younger patients in whom fertility is to be preserved, uterus and ovarian sparing surgery is attempted with risk of recurrence explained to the patient and need for follow up due to appearance of later recurrence. Despite the uncommon nature of the tumour and lesser studies, the survival outcomes remain excellent.

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None.

Conflict Of Interest
No potential conflict of interest was noted.

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