

Intestinal Type Borderline Mucinous Ovarian Tumour

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ABSTRACT

A 26 years old para 4 lady presented with abdominal distension following a home delivery 18 months back and lactational amenorrhoea following since. Examination and investigation findings revealed a large ovarian tumour (28x28 cm) occupying the whole of the abdomen. Tumour markers were normal except for a slightly raised lactate dehydrogenase enzyme. Patient underwent staging laparotomy- left salpingoophorectomy, right tubal ligation with omental biopsy and peritoneal fluid cytology. Histopathology report revealed borderline mucinous ovarian tumour of intestinal type. Her postoperative period was uneventful and she was advised for follow-up.

Borderline ovarian tumours are uncommon tumours. In the younger age with stage I, fertility sparing surgery is enough and has excellent prognosis, but follow up is important.

Keywords: borderline ovarian tumour; follow-up, prognosis

INTRODUCTION

The designation "borderline ovarian tumours (BOTs)" refers to ovarian epithelial neoplasms that demonstrate higher proliferative activity when compared with benign neoplasms but do not show stromal invasion. Borderline ovarian tumours are uncommon tumours with an incidence of 2.5/100,000 women years.¹ The mean age at diagnosis ranges from 38-56 years, 10 years younger than for the malignant tumours of the ovary.²

The majority of mucinous BOTs present early as stage I disease. Unilateral oophorectomy or salpingoophorectomy preserves fertility, leaving one functional ovary and uterus.^{3,4}

The prognosis of mucinous BOTs is dependent on their stage. They typically manifest as low stage disease and show excellent prognosis.⁵

CASE REPORT

A twenty-six years old para four lady had presented with abdominal distension following her last childbirth at home 18 months back and lactational amenorrhoea

following since. She had occasional mild lower abdomen pain for past three months and difficulty in breathing in sitting posture. There was a huge mass in the abdomen corresponding to 36 weeks' gestational size, (28x28 cm) smooth surface, regular margin, mobile from side to side and lower pole was reachable. On speculum examination, cervix was healthy and on vaginal examination, uterus was anteverted, normal sized and deviated to right side and mass could be felt on the left side. Urine for pregnancy test was negative. Her complete blood count, liver and renal function tests were normal. Ultrasonography revealed (22x15 cm), multiseptated cystic mass in midline with normal uterus. Computer tomography scan reported large complex cystic lesion (23x21x14 cm) in the abdomen and pelvis with slight predominance to right side with mass effect. Few septations containing minimally enhancing soft tissue (10x11mm) and (24x14 mm) were also seen. Minimal ascites was noted. The tumour markers serum beta human chorionic gonadotrophin (β hCG) <2 mIU/mL, carcinoembryonic antigen (CEA) 2.49 nanogram/mL, alpha fetoprotein (AFP) 0.5 IU/mL all were normal

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except slightly raised lactate dehydrogenase enzyme (LDH) of 501 U/mL.

Under general anesthesia, patient underwent staging laparotomy- left salpingoophrectomy, right tubal ligation, omental biopsy with peritoneal fluid cytology and was staged Ia.

Operative findings revealed straw coloured peritoneal fluid about 300mL, enlarged left ovary (28x25 cm), smooth surface regular margin intact capsule with stretched left fallopian tube over the mass. Uterus was normal, stretched and deviated antero-posteriorly. Right fallopian tube and right ovary were normal with smooth liver surface and normal gallbladder, large and small bowel, appendix and omentum. The cut section of left ovary revealed unilocular cyst containing ~1000 mL fluid, inner surface containing two small solid components (3x2 cm).

Peritoneal fluid cytology report was negative for malignant cells. Histopathology report of left ovary showed mucinous borderline tumour, intestinal type and fibro-fatty tissue in omentum.

The final diagnosis of the case was stage Ia borderline mucinous ovarian tumour, intestinal type.

Her postoperative period was uneventful, she was discharged on ninth day and was advised to come for follow up with CA-125, CEA, LDH and transvaginalsonography (TVS) reports.



Figure 1. Huge left ovarian tumour with normal uterus and right ovary.

DISCUSSION

Borderline ovarian tumours most commonly affect reproductive age typically during the fourth decade, about 27% are younger than 40 years.⁶ In our case, the patient presented at much younger age of 26 years. Most patients present with nonspecific symptoms, abdominopelvic pain or mass. Approximately, 16% of patients are asymptomatic at the time of diagnosis.⁷ In our case, the patient had presented with abdominal mass and mild lower abdominal pain.

Mucinous borderline ovarian tumour consists of two distinct histologic subtypes, intestinal type (90%) and endocervical-like (10%) histotypes.⁸ The intestinal type is usually large and unilateral which is similar to our case. At the time of diagnosis, approximately 82% are confined to the ovary with five year survival rate of 99 - 100%.⁹ Patients with these tumours rarely have a recurrence or die of the disease. Accurate diagnosis and distinction from advanced ovarian malignancy by surgical staging facilitate management of fertility preserving surgery.

Follow-up is usually a combination of clinical examination, TVS and CA-125 level. During the initial 2 years, patient is evaluated every three months then biannually for 3-5 years then annually thereafter.¹⁰ TVS or pelvic magnetic resonance imaging may be performed for local recurrence.

So, whenever ovarian tumour is diagnosed in younger age group, proper surgical staging is still required and if available, intra-operative frozen sections can help clinicians in making an appropriate decision on its surgical management. If borderline ovarian tumour is histopathologically proven, regular follow-up is important.

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