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CASE REPORT

Malignant Brenner Tumor of Ovary

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ABSTRACT

Introduction: Ovarian carcinoma remains the most lethal disease of the female reproductive tract and most difficult to diagnose early. Brenner tumor of ovary is a relatively uncommon neoplasm constituting 1.4 to 2.5% of all ovarian tumors. In vast majority of cases, these tumor are benign, only 2.5% being malignant.

Case report: A 46 years old parous menopausal female presented with complains of pain in abdomen since 2 months and lump in right iliac region. Per abdomen examination showed irregular mass of variable consistency with 16 to 18 weeks gravid uterus size arising from pelvis. On per vaginum examination, firm to hard mass was felt in the posterior and lateral fornices exact size of which could not be determined. Per rectal examination revealed hard nodules in Pouch of Douglas (POD). Ovarian cytoreduction surgery was performed. Omentectomy was performed. Histopathology showed malignant Brenner tumor (transitional cell carcinoma).

Conclusion: Although Brenner tumors are rare and the majority of them are benign, the correct histological diagnosis with identification of the small proportion of malignant tumors allows the extent of the operation to be needed.

Keywords: Brenner tumor, Wertheim's hysterectomy, Cytoreduction surgery, Histopathology, Malignant.

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INTRODUCTION

Ovarian carcinoma remains the most lethal disease of the female reproductive tract and the most difficult to diagnose early.[1,4] Brenner tumor of ovary is a relatively uncommon neoplasm constituting 1.4 to 2.5% of all ovarian tumors and has a predilection for the postmenopausal women. In vast majority of cases, these tumor are benign, only 2.5%[2,3] being malignant. The malignant components of the tumor show heterogeneous epithelial growth and atypia with intervening stroma, consisting of transitional cells, squamous or undifferentiated carcinoma or an admixture of these types.

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CASE REPORT

A 46 years old parous menopausal female presented with complains of pain in abdomen since 2 months and lump in right iliac region. To start with lump was very small in size and has grown gradually over last 6 months to present size of tennis ball. Patient had undergone right ovariectomy with left ovarian cystectomy for ovarian tumor 2 years back. Details of past operation were not available.

Per abdomen examination showed irregular mass of variable consistency with 16 to 18 weeks gravid uterus size arising from pelvis. No tenderness and no other organomegaly were present. Mild ascites was present. On per speculum examination, vaginal mucosa was pale, cervix pulled up. No discharge or bleeding was seen.

On per vaginum examination cervix was high up, deviated to left. Firm to hard mass felt in the posterior and lateral fornices exact size of which could not be determined. Uterus was not felt separately. Per rectal examination revealed hard nodules in Pouch of Douglas (POD).

Ultrasonography (USG) showed uterus 5.7 × 3.8 × 5.7 cm. Endometrium was 9 mm thick. Multiloculated, multicystic heterogeneous lesion of size 14.6 × 10.6 cm noted in pelvis with solid area within it. Left ovary shows heterogeneous mass of 5.3 × 3.3 cm. Left kidney showed grade I/II hydronephrosis.

CECT abdomen pelvis showed cystic, thickened, irregular wall lesion in right lumber region, ovarian cyst, mesenteric cyst with ascites and peritoneal metastasis.

Ovarian cytoreduction surgery was performed.

Intraoperative findings revealed massive ascites of about 2 liters was drained.

Ovarian mass of 15 × 15 cm size was present in left iliac fossa (Figs 1 and 2). Right pelvic lymph nodes were enlarged. Nodules were present in vesicouterine pouch and POD. Omentum was studded with nodules. Omentectomy was performed. Type II modified radical abdominal hysterectomy (Wertheim's hysterectomy) was performed. A small segment of sigmoid was involved. Resection anastomosis was performed. Postoperative period was uneventful. Drain was kept for 10 days. Patient received albumin supplementations and blood transfusions.

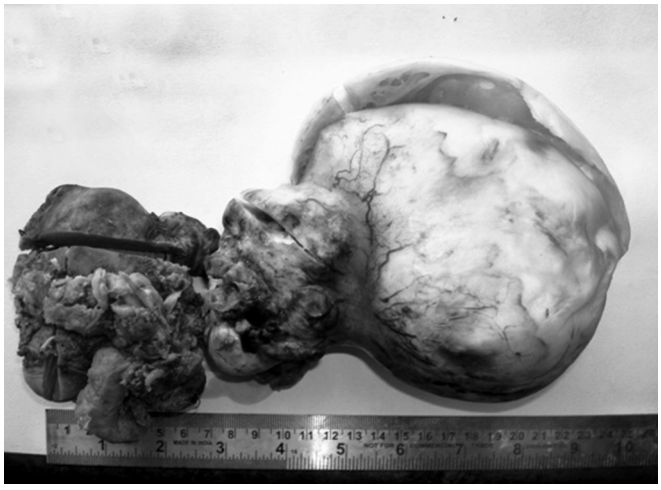

Fig. 1: Gross specimen of ovary with Brenner's tumor

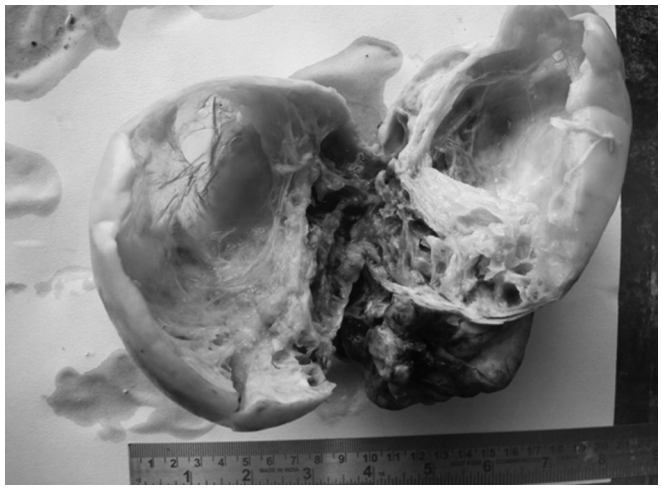

Fig. 2: Cut section of specimen

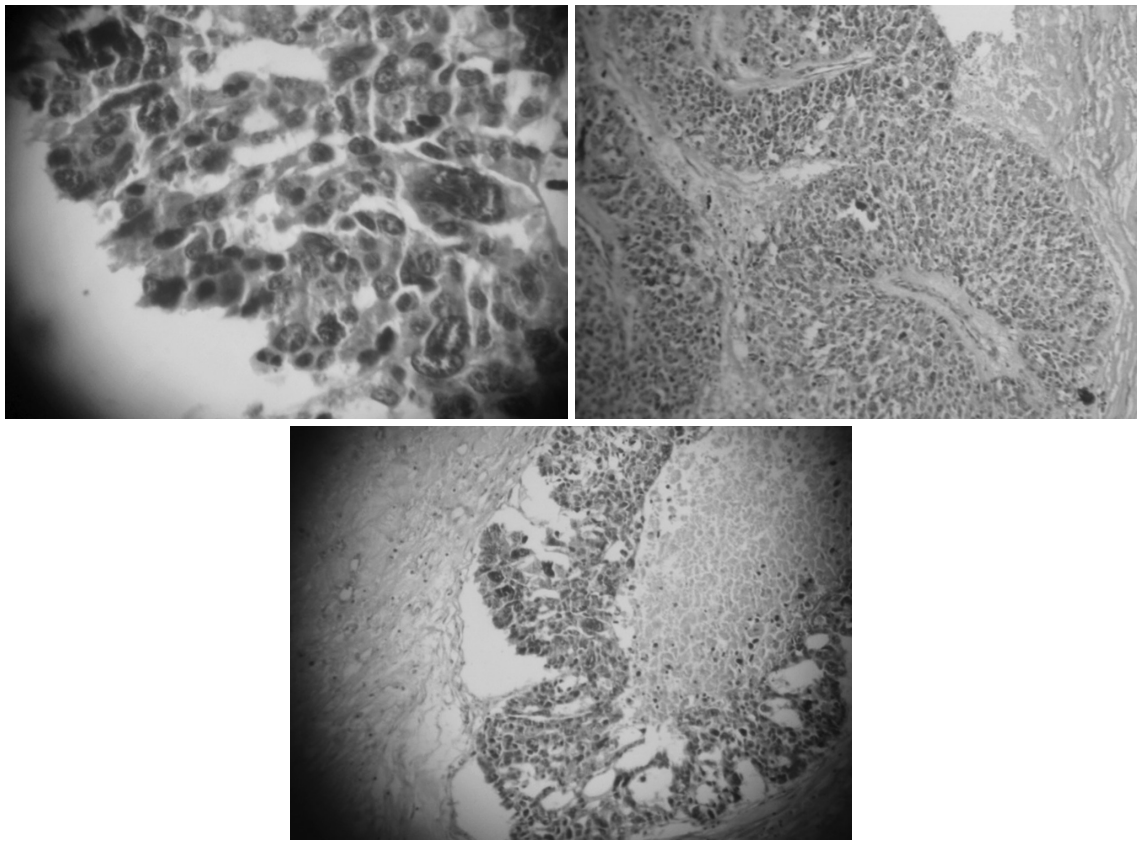

Fig. 3: Histopathology of Brenner's tumor

Histopathology showed malignant Brenner tumor (transitional cell carcinoma) (Fig. 3).[5,7] Uterus was negative for infiltration of malignant epithelial cells. Cervix showed infiltration of malignant cells. Omental lymph nodes, sigmoid colon were positive for metastatic deposits. Tumor mass was positive for lymphovascular invasion.

Chemotherapy with paclitaxel and carboplatin for five cycles was given.

CONCLUSION

Although Brenner tumors are rare and the majority of them are benign,[2,7] the correct histological diagnosis with identification of the small proportion of malignant tumors allows the extent of the operation to be needed and improve survival in cases of malignancy. The histologic appearance of malignant Brenner tumor is similar to that of transitional cell cancer of the ovary[6] and transitional epithelium of the urinary bladder. The mainstay of treatment is surgical resection, but the exact regimen and benefit of adjuvant therapy remain unknown.

REFERENCES

1. Davis HW, Zurawski VR Jr, Bast RC Jr, Klug TL. Characterization of the CA 125 antigen associated with epithelial ovarian carcinomas. Cancer Res 1986 Dec;46(12 pt 1):6143-6148.

2. Joh K, Aizawa S, Ohkawa K, Dohzono H, Aida S, Ohgoshi E. Case report of a malignant Brenner tumor with hyperestrogenism. Pathol Int 1995 Jan;45(1):75-84.
3. De Lima GR, de Lima OA, Baracat EC, Vasserman J, Burnier M. Virilizing Brenner tumor of the ovary: case report. Obstet Gynecol 1989 May;73(5 pt 2):895-898.
4. Rose PG, Reale FR, Longcope C, Hunter RE. Prognostic significance of estrogen and progesterone receptors in epithelial ovarian cancer. Obstet Gynecol 1990 Aug;76(2):258-263.
5. Von Numers C. A contribution to the case knowledge and histology of the Brenner tumor; do malignant forms of the Brenner tumor also occur? Acta Obstet Gynecol Scand 1945 Jan;2(Suppl):114-127.
6. Roth LM, Gersell DJ, Ulbright TM. Ovarian Brenner tumors and transitional cell carcinoma: recent developments. Int J Gynecol Pathol 1993 Apr;12(2):128-133.
7. Hull MG, Campbell GR. The malignant Brenner tumor. Obstet Gynecol 1973 Oct;42(4):527-534.