

BEYOND THE NORM : BRENNERS TUMOUR IN A YOUNG FEMALE

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Background

Brenner tumors are surface epithelial stromal cell tumors that make up 1.4–2.5% of all ovarian tumors' and 1-2 percent of epithelial ovarian tumors .¹ The majority of Brenner tumor cases occur in women between 50-60 years old, usually during the postmenopausal phase.²

Brenner tumors are characterized by transitional cells exhibiting urothelial-like morphology. ³Though usually benign, there have been a few documented instances of malignant change.⁴

Diagnosing Brenner tumors can be challenging due to their similar clinical and imaging characteristics to other common ovarian tumors.⁵

Accurate diagnosis relies on detailed histopathological examination, made possible through surgical removal of the tumor.⁶

Case Presentation

A 32-year-old woman presented with complaints of sudden abdominal pain since 1 day. The pain was insidious in onset and gradually progressive. A sharp, pricking sensation confined to her lower abdomen, persisting throughout the day without any relief. The pain didn't radiate to other areas, and there were no aggregating or relieving factors. The pain was associated with one episode of vomiting. She had no history of menstrual irregularities, abdominal masses, fever, dysuria or irregular bowel or bladder movements.

She is a para 1 and she had a normal vaginal delivery

Her last menstrual period was on 17/7/2024

On examination there was no pallor, her vitals were stable, per abdomen was soft with diffuse tenderness. Mass was palpable around 14 week gravid size uterus with diffuse tenderness. The mass had smooth borders, lower margin couldn't be felt .The mass was around 5×7 cm. Internal examination revealed normal size uterus and a forniseal mass reaching up to the hypogastrium.

An ultrasound was done which revealed Large multilocular cystic mass with solid components measuring 7x9x10.8cm in the pelvis, reaching up the hypogastrium.

Tumour markers were sent

CA 125 8.3 U/ml (normal)

CA 19.9 1.7 U/ml (normal)

CEA 1.22 ng/ml (normal)



Consent was taken. The patient was subjected to laparoscopy. Intraoperative findings revealed right ovarian cyst 11x 8 x7cm multi lobulated mucinous fluid noted which was a solid mass.

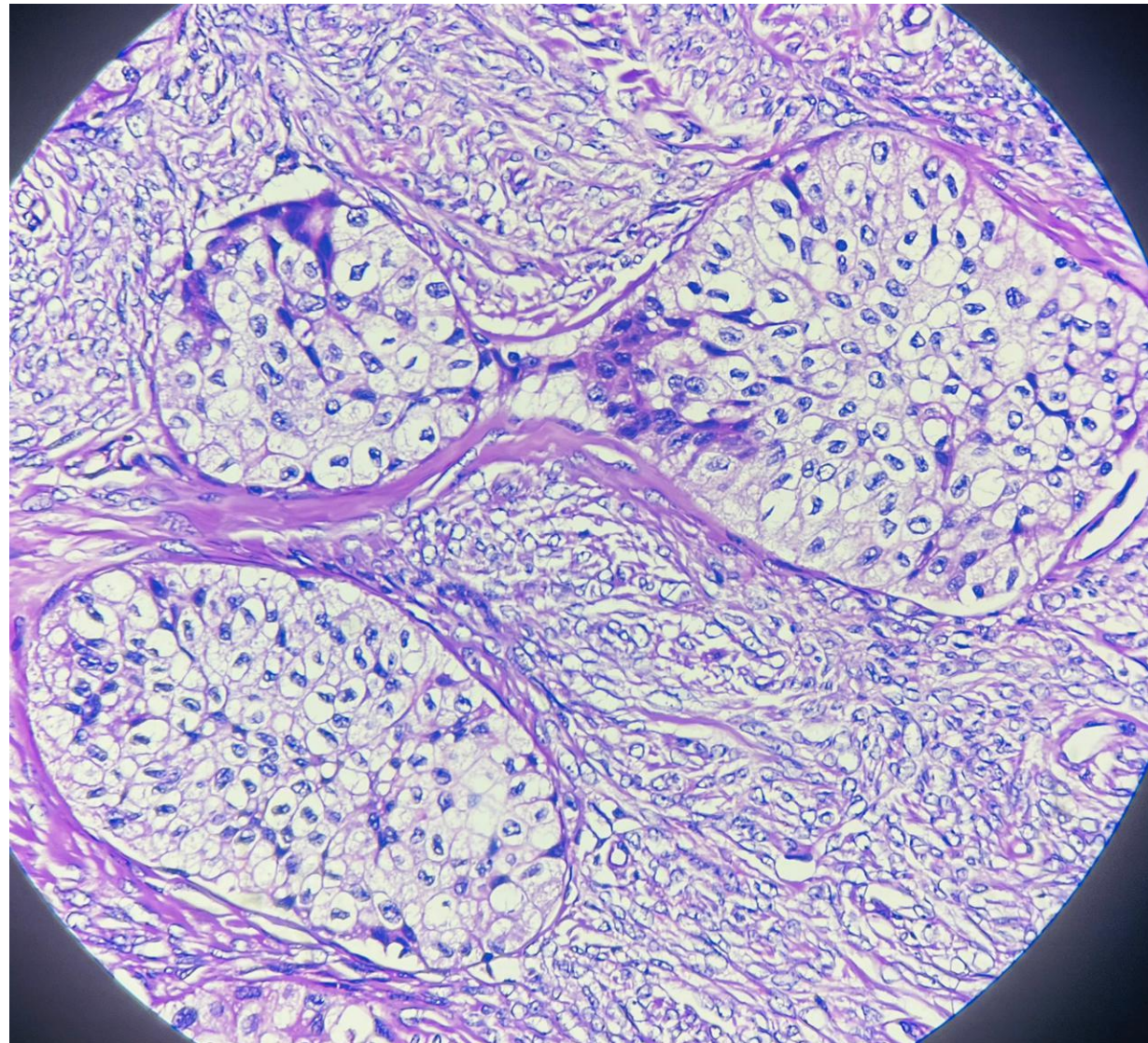
Right Salpingo –oophorectomy was done. Specimen was retrieved through colpotomy using endobag .

Specimen was sent for frozen section it revealed small oval nests of bland urothelial epithelium in dense fibromatous stroma with focal



Mucinous lining epithelium suggestive of benign Brenner's

in the right ovary.



Final histopathology: Brenners tumor with mucinous cystadenoma

DISCUSSION

Brenner tumors are surface-epithelial stromal cell tumors that make up 1.4–2.5% of all ovarian tumours and 1-2 percent of epithelial ovarian tumors .¹ The woman in this case is 32 years old, which is beyond the usual age range for postmenopausal women (peak incidence: 50-60 years) .² This is an uncommon occurrence of Brenner tumor in a person. Abdominal pain and vomiting were the presenting symptoms; this combination of symptoms are observed in just 0.8% of cases of Brenner tumors.⁷ This tumor was exceptionally large, measuring 7x9x10.8 cm, exceeding the typical size range of 1-5 cm for benign Brenner tumors .³

This is an exceptional presentation because less than 5 percent of Brenner tumors are larger than 10 cm⁸. Whereas uncommon malignant Brenner tumors are usually 5–15 cm in size, this one was benign despite its size⁸. This case is distinctive overall because it presents a rare age presentation, odd symptoms, exceptionally large benign tumor and it is a combination tumor.

Benign Brenner tumors are commonly treated with laparoscopic surgery to remove the ovarian cyst.⁹ In order to confirm diagnosis, a histological examination and intraoperative evaluation are necessary¹⁰. In most cases, it is possible to preserve the ovary and fallopian tube.¹¹

Due to the size of the tumour salpingo oophorectomy was done.

In young age patients discussions about methods for preserving fertility, such as cryopreservation of ovarian tissue, are necessary¹².

Treatment guidelines recommend surgery for early-stage tumors, followed by chemotherapy or observation, and surgery plus chemotherapy for advanced-stage tumors.

Chemotherapeutic agents Carbaplatin and paclitaxel are two examples that are often utilized .¹³

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