

## Introduction

- Brenner tumor of ovary is relatively uncommon neoplasm, accounting ~ 2% of all ovarian cancers. (1)
- Mostly benign and unilateral in 95% of cases.
- Malignant- extremely rare (~ 2%) and <5% borderline.
- Average age of presentation- 50 years, 71% patients >40 yrs. (2)

## Case Report

- 32 year old primiparous woman presented with abdominal distension and irregulae menses for last 4 months.
- After evaluation, she was diagnosed as a case of left adnexal mass for which she underwent left salpingo-oophorectomy and omentectomy.
- Grossly, tumor is encapsulated (Fig 1). Serial cut sections showed tan to yellowish firm solid cystic appearance, predominantly solid.
- Microscopically, the tumor is composed of epithelial nest arranged in background of dense fibromatous stroma (Fig 2). These epithelial cells display fairly uniform oval nuclei with longitudinal nuclear grooves, distinct nucleoli with moderate to abundant eosinophilic cytoplasm.
- On IHC, **Epithelial cell** nests are positive for CK7 & p63, negative for CK20, calretinin, WT 1, CD10, desmin, SMA, caldesmon, S100, CD34, ER & PR, **Fibromatous component** is positive for SMA, focal positive for PR expression & CD10, negative for desmin, caldesmon, CD34, S100, WT1, calretinin, p63.

## Discussion

- Brenner tumor of ovary- originally known as transitional cell tumor because of their histologic similarity to the urothelium.[3]

- Common symptoms include vaginal bleeding, palpable pelvic mass & pelvic pain. (3)
- On pathological examination, Brenner tumors are composed of epithelial nests surrounded by proliferating dense stromal tissue. Fibrous component is less predominant in borderline or malignant than in benign tumor. Benign tumors are generally solid at pathologic examination.
- Most benign tumors are <5cm, while borderline or malignant tumors are >5cm. (3)

## Conclusion

- Incidence of Brenner tumor is very rare (1.4-3.5%) of which <5% is borderline.
- Histopathological examination + IHC remains the gold standard for diagnosis.



Fig 1. Gross specimen

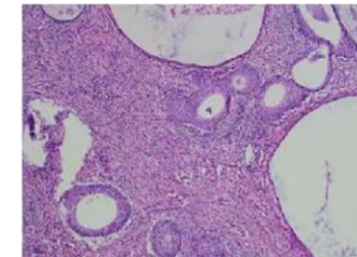


Fig 2. Epithelial nest in fibromatous stroma

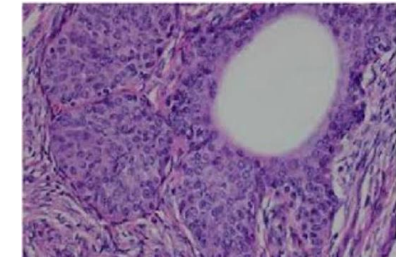


Fig 3. Epithelial nest under high power (20X)

## References

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2. Vranes HS, Klaric P, Benkovik LB, Pirkic A. Brenner tumor of the ovary. Acta Clin Croat. 2005;44:271-3.
3. Athey PA, Siegel MF. Sonographic features of Brenner tumor of the ovary. J Ultrasound Med. 1987;6(7):367-72.