Brenner tumor

- uncommon surface epithelial tumor of the ovary.
  - It was originally known as a **transitional cell tumor** due to its histological similarity to the urothelium. Brenner tumors account for ~3% of ovarian epithelial neoplasms. They can very rarely occur in other locations, including the testis.
- **Epidemiology**
  - Most often found incidentally in women between their 5th and 7th decades of life.
- **Clinical presentation**
  - They are most frequently found incidentally on pelvic examination or at laparotomy.
- **Pathology**
  - Histological specimens often show transitional cells similar to neoplasms of the urothelium [8].
- **Associations**
  - Brenner tumours are associated with another epithelial ovarian neoplasm of either the ipsilateral or contralateral ovary in ~30% of cases [6].
- **Location**
  - Brenner tumours can be bilateral in 6-7% of cases.

Imaging

- Often manifest as a multilocular cystic mass with a solid component or as a mostly solid mass.
- Tumours are usually small (<2 cm). Even with the occasional large tumour (>10 cm), there is often a lack of local invasion, lymphadenopathy, ascites, or metastases (i.e. peritoneal metastases, omental caking), which help distinguish it from other malignant ovarian neoplasms.
- Due to its predominantly fibrous content content they appear hypointense on T2-weighted sequences

US

- Brenner tumours are similar to other solid ovarian neoplasms, particularly fibromas-thecomas, and can also be confused with pedunculated leiomyomas.
- They are mainly hypoechoic solid masses. Calcifications have been reported in 50% of Brenner tumours on ultrasound.

CT

- calcifications have been reported in ~85% of Brenner tumours on CT
- solid component may show mild to moderate enhancement post-contrast