

Immature ovarian teratoma

- Uncommon ovarian germ cell tumours.
- They differ from mature ovarian teratomas (dermoid cysts) both histologically by the presence of immature tissue, and clinically by their more malignant behaviour.

● Epidemiology

- They are considerably less common than mature ovarian teratomas, representing less than 1% of ovarian teratomas ¹. They also affect a younger age group, occurring most often in the first two decades of life (accounting for 10-20% malignant ovarian tumours in this age group).

● Clinical presentation

- Presentation may be with a palpable pelvic mass or less commonly with abdominal pain

Pathology

- Characterised by the presence of immature or embryonic tissue, as well as the mature tissue elements seen in a mature teratoma.
- The proportion of immature neuroepithelium present correlates with the tumor grade (and hence prognosis) .
- Macroscopically, immature teratomas are large, encapsulated masses which have a prominent solid component.
- As well as this, they may feature many of the components seen in a mature teratoma, such as hair, cartilage, bone and calcification.

Imaging

- The imaging appearance is typical of a large, heterogeneous mass with a prominent solid component.
- However, the spectrum of appearances ranges from a predominantly cystic to a mostly solid mass. Immature teratomas tend to be larger than mature cystic teratomas at initial presentation.
- Extension through the tumour capsule may be present.
- Immature teratoma may metastasise to the peritoneum, liver or lung. Metastasis to the brain has also been reported

CT

- The presence of a prominent solid component containing calcifications and small foci of fat is suggestive.
- Cystic components may contain serous, mucinous, or fatty sebaceous material. Haemorrhage may be present.





