

# Mature (cystic) ovarian teratoma

- **Ovarian dermoid cyst** and **mature cystic ovarian teratoma** are terms often used interchangeably to refer to the most common [ovarian neoplasm](#).
- These slow-growing tumors contain elements from multiple germ cell layers and are best assessed with ultrasound.
- Although they have very similar imaging appearances, the two have a fundamental histological difference: a dermoid is composed only of dermal and epidermal elements, whereas teratomas have mesodermal and endodermal elements.
- For the sake of simplicity both are discussed in this article, as much of the literature combines the two entities.

## ● Location

- They are bilateral in 10-15% of cases

## ● Variants

- struma ovarii tumour: contains thyroid elements, however, sometimes these are separately classified as specialised teratomas of the ovaries

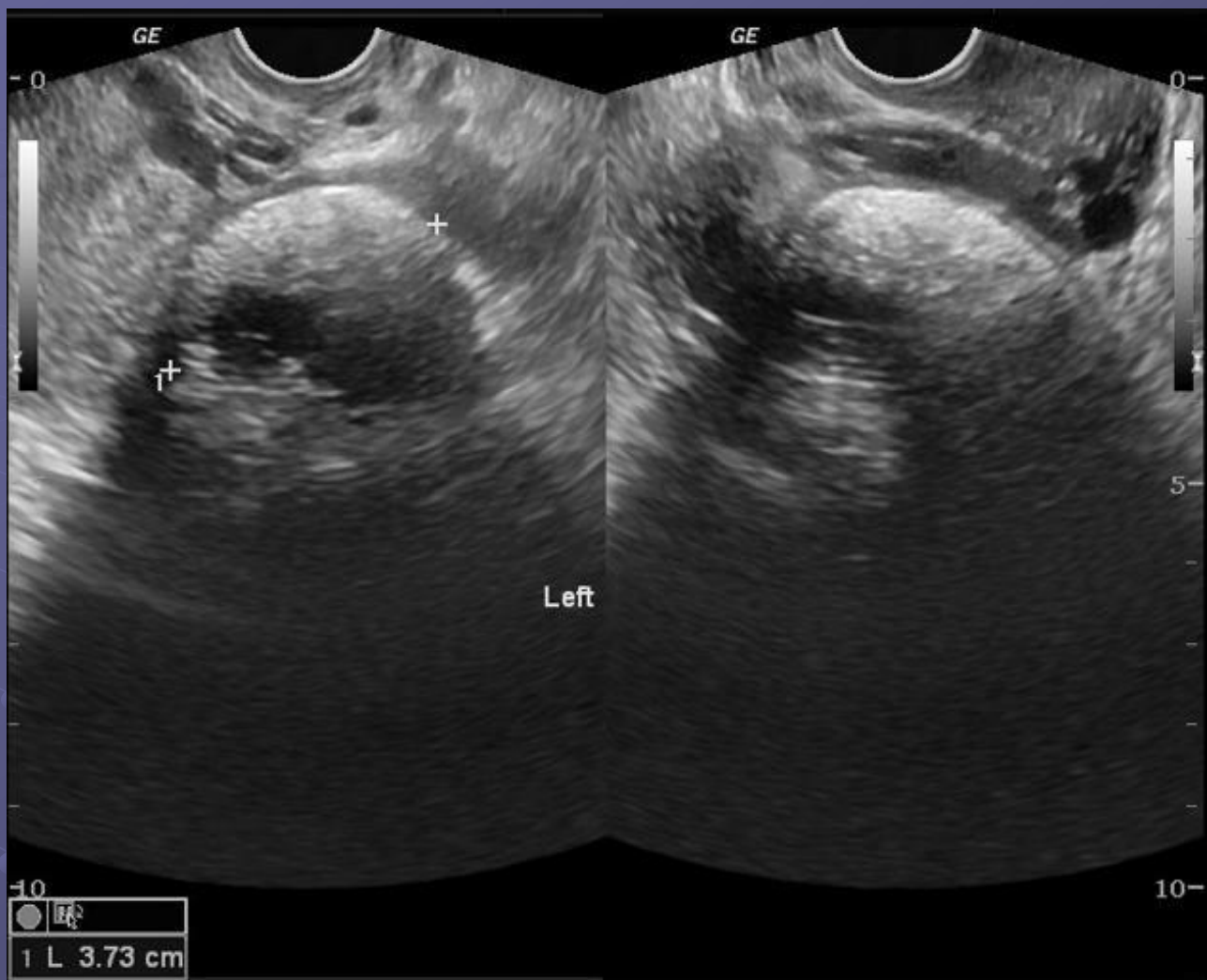
# US

- Ultrasound is the preferred imaging modality. Typically an ovarian dermoid is seen as a cystic adnexal mass with some mural components. Most lesions are unilocular.
- The spectrum of sonographic features includes:
- diffusely or partially echogenic mass with posterior sound attenuation owing to sebaceous material and hair within the cyst cavity
  - an echogenic interface at the edge of mass that obscures deep structures: the [tip of the iceberg sign](#)
- mural hyperechoic [Rokitansky nodule: dermoid plug](#)
- echogenic, shadowing calcific or dental (tooth) components
- the presence of fluid-fluid levels <sup>5</sup>
- multiple thin, echogenic bands caused by the hair in the cyst cavity: the [dot-dash pattern](#)
- colour Doppler: no internal vascularity
  - internal vascularity requires further workup to exclude a malignant lesion
- appearance of intracystic floating balls is rarely seen but is considered characteristic

# CT

- High sensitivity in the diagnosis of cystic teratomas
- Typically CT images demonstrate fat (areas with very low Hounsfield values), fat-fluid level, calcification (sometimes dentiform), Rokitansky protuberance, and tufts of hair.
- The presence of most of the above tissues is diagnostic of ovarian cystic teratomas in 98% of cases <sup>5</sup>.
- Whenever the size exceeds 10 cm or soft tissue plugs and cauliflower appearance with irregular borders are seen, malignant transformation should be suspected <sup>5</sup>.
- When ruptured, the characteristic hypoattenuating fatty fluid can be found as anti dependant pockets, typically below the right hemidiaphragm, a pathognomonic finding <sup>2</sup>. T
- he escaped cyst content also leads to a chemical peritonitis and the mesentery may be stranded and the peritoneum thickened, which may mimic peritoneal carcinomatosis <sup>2</sup>.





# Rokitansky nodule

