

Typical MRI Appearance of a Dermoid Cyst

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Mature cystic teratomas of the ovary, also known as dermoid cysts, are the most frequent benign ovarian tumors in young women with a characteristic appearance on imaging [1-3]. Their diagnosis is usually made on imaging by ultrasound, and confirmation by MRI and sometimes CT scan. It presents as a mass with a mixed fat and cystic component with calcifications and remnants of embryonic tissue in the form of a central nodule or Rokitansky protuberance (hair) [1,2]. Figure 1 shows a heterogeneous well-bounded oval formation with a liquid level in T1 hyposignal, T2 hypersignal and fat (in T1 and T2 hyper signal fading on the fat suppression sequence), with a heterogeneous central nodule containing a part in asignal (calcifications) and another in T1 iso signal and T2 hyper signal without enhancement after gadolinium injection.

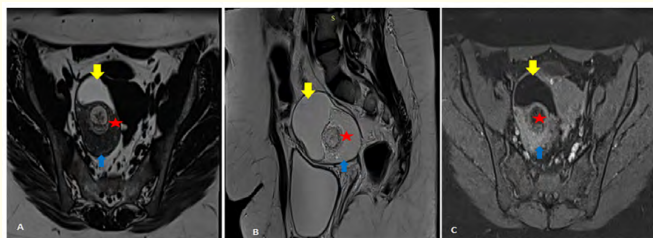


Figure 1: Pelvic MRI (A axial T1, B sagittal T2 and C Axial T1 fat sat) showing a heterogeneous oval ovarian mass with a liquid level (blue arrow) and fat (yellow arrow) fading on the fat sat sequence (C) with a central nodule a signal (red star) calcification.

Its incidence is 10-25% in adolescent girls. It represents about 50% of pediatric ovarian tumors [1].

They are composed of tissues of ectodermal (skin, tissue, nerve), mesodermal (muscle, tissue, adipose) or endodermal (gastrointestinal tract, bronchus) origin.

Histologically, the mature teratoma is made up of well-differentiated tissue from at least two of the three layers of stem cells. It is mostly cystic in 88% of cases, rarely solid [2].

Immature teratoma is an exceptional malignant tumor (less than 1% of ovarian teratomas) in young women. It is composed of a mixture of mature tissue identical to that found in dermoid cysts and immature tissue, often represented by nerve differentiation tissue. Depending on the amount of immature tissue found, immature teratomas will be classified into 3 grades [2].

The timing of surgical management is controversial. The teratoma progressively increases in size at a rate of 1.8 mm per year without the need for surgery. Most surgeons agree that in case of symptoms, a large mass and as part of a fertility work-up, surgery is indicated [2].

Conflict of Interests

All authors have no conflict of interests to declare.

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