



UNIVERSITY of
ROCHESTER
MEDICAL CENTER

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DEPARTMENT OF IMAGING SCIENCES

Imaging Sciences Interesting Cases

CASE 179

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CLINICAL PRESENTATION: A 23-year-old female presented to the emergency department with acute onset of abdominal pain with nausea and vomiting. Clinical suspicion of appendicitis or ovarian cyst.

IMAGING FINDINGS: See figure legend.



Figure 1: Large 11 x 10 x 7.6 cm left ovarian mass with pockets of calcification and fat identified within it. Mild edema of the surrounding pelvic fat in the setting of pain worrisome for torsion. No fat seen in the peritoneal cavity or pelvis to suggest rupture.

DIAGNOSIS: Teratoma of ovary with symptomatic torsion

DISCUSSION: Teratomas are tumors with elements from multiple germ cell layers. They can be benign or malignant in nature and can occur in multiple locations of the body.

Most common locations include:

- 1) Sacrococcygeal
- 2) Gonadal (Ovary > Testes)
- 3) Sequestered midline embryonal cell rests (less frequently than above 2 locations)

Ovarian teratomas can be seen at any age, but most common in females of reproductive age. Most likely discovered as asymptomatic incidental findings on physical or radiologic examination. Symptomatic patients present with: palpable mass, abdominal discomfort, severe abdominal pain (if ruptured or torsed ovary), abnormal uterine bleeding, mass effect on adjacent structures such as the bladder or bowel.

Complications of ovarian teratomas include:

- 1) Torsion (most common complication in 3-16% of patients and increased tumor size may increase risk)
- 2) Rupture (both acute and chronic rupture is possible with shock, hemorrhage and acute chemical peritonitis as possible causes of morbidity)
- 3) Infection (rarer than torsion or rupture)
- 4) Autoimmune hemolytic anemia (etiology not completely understood but removal of tumor can be curative)
- 5) Malignant degeneration (dismal survival rate in the rare cases of malignant degeneration)

REFERENCES:

1. Comerci JT Jr, Licciardi F, Bergh PA, Gregori C, Breen JL. Mature cystic teratoma: a clinicopathologic evaluation of 517 cases and review of the literature. *Obstet Gynecol.* 1994 Jul;84(1):22-8. [PubMed]