We present two tumors, the immature and mature ovarian teratoma, both with similar sonographic features, raising a high risk of malignancy. The histopathology revealed an immature cystic teratoma in Case 1 and a mature teratoma in Case 2.

**Case 1: Immature teratoma**
- 21y.o., abdominal pain; rt. pelvic mass: 14*11*9cm
- AFP=17.1U/ml
- The risk of malignancy: 21% (IOTA ADENEX)

Sonography:
- Multilocular-solid mass
- Large irregular solid components
- Disperse calcifications with acoustic shadows
- Low-level echogenicity of the liquid content
- Regular external borders of the tumor
- High vascularity of the solid components
- No preserved normal ovarian tissue
- No ascites or signs of extra-ovarian spread

**Case 2: Mature teratoma**
- 12-y, fever of unknown origin, rt. pelvic mass: 9*8*7cm
- Normal onco-markers
- The risk of malignancy: 33% (IOTA ADENEX)

**Conclusion:** predicting immature teratoma using IOTA criteria is difficult: apparently "malignant" sonographic features may lead to false positive diagnosis.