Dysgerminoma

Differential Diagnosis

- Embryonal carcinoma
- Yolk sac tumor
- Large cell lymphoma
- Metastatic melanoma
- Clear cell carcinoma
- Mixed germ cell tumor

Case 14 Clinical History

Composite Case

- TR64-13818 The patient was a 16 year old female. Four weeks prior to admission she developed abdominal pain and rebound tenderness, suggestive of peritonitis. She had a mild fever. Antibiotics were administered and the discomfort slowly diminished and the temperature returned to normal. There was a suggestion of enlargement of the right ovary. She was seen 3 weeks later at which time a large mass extending almost to the umbilicus was palpated. The patient was taken to surgery and a large mass of the left ovary was found.
- TR90-26689 The patient was a 30 year old woman who presented with a 1-week history of pelvic pain. At surgery, a large right ovarian tumor was found and removed.
Case 14 Gross Pathology

- **TR64-13818** A large ovarian tumor measuring 12.0 cm in diameter was removed. It had a smooth glistening external surface. Cross sections showed a large cyst and several smaller cysts with solid masses measuring up to 7.0 cm in diameter projecting into the lumens. A few hairs projected from one of the smaller masses into one of the cysts. The cut surfaces had areas of hemorrhage and there were small foci of calcification.

- **TR90-26689** The right ovary measured 15 cm in maximum dimension. It was predominantly solid with rubbery white tan cut surfaces. There were multiple cysts ranging from 0.2 to 10 cm in maximum dimension. Brown hair was noted and there were focal gritty areas of calcification. There were occasional foci of hemorrhage and necrosis. A biopsy of a bowel adhesion showed fibrosis, but no tumor.
Immature Mesenchyme

Immature Neuroepithelium
Case 14 Diagnosis

Immature Teratoma

Case Objectives

- Classification and Clinical Features
- What is an immature component of a teratoma?
- Grading of immature teratoma
- What is the significance of a tiny amount of immature tissue?
- Treatment controversies
- Recognition of microfoci of yolk sac tumor and immature teratoma histogenesis

Teratomas of the Ovary

- Mature cystic (benign cystic teratoma; dermoid cyst)
- Mature solid
- Mature cystic with malignant transformation
- Immature
- Monodermal
  - Struma ovarii
  - Carcinoid
  - Primitive neuroectodermal tumor
Immature Teratoma

- Average age ~ 20
- Abdominal pain, distention, or mass
- Rare patients have autoimmune encephalitis syndrome
- α-fetoprotein, CA125 can be ↑
- Stage at presentation:
  - 70% stage IA (0% stage IB)
  - 30% stage > I (peritoneum, LN, distant)
- 10-15% have benign cystic teratoma in contralateral ovary

What Do We Need to See to Diagnose Immature Teratoma?

- AFIP Fascicle: Immature tissues that resemble those of an embryo (vs fetal type tissues in mature teratomas).
- WHO: Immature embryonal type tissue.
- Cho et al: A teratoma containing tissues of types seen prior to fertilization age = 8 weeks.