Two Pathways to Immature Teratoma

Case 15 Clinical History
- 47 year old woman
- Operated on for “fibroids”
- The uterus contained leiomyomas, but a large left ovarian tumor was also discovered
- No tumor was identified outside the ovary (stage IA)
- The patient was well when last seen in November, 2011 (10 years)

Case 15 Gross Pathology
- The left ovary was replaced by a 14.9 cm tumor
- The exterior was smooth and glistening, with no external tumor growth
- The cut surfaces were fleshy and light tan to pink to tan-yellow
Case 15 Diagnosis

Granulosa Cell Tumor

Sex Cord Stromal Tumors

<table>
<thead>
<tr>
<th>Tumor Type</th>
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<tbody>
<tr>
<td>Granulosa Cell Tumor</td>
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<tr>
<td>Thecoma</td>
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<tr>
<td>Fibrothecoma</td>
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<tr>
<td>Fibroma</td>
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<tr>
<td>Cellular and mitotically active fibroma</td>
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<tr>
<td>Fibrosarcoma</td>
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<tr>
<td>Sclerosing Stromal Tumor</td>
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<tr>
<td>Sertoli-Leydig Cell Tumor</td>
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<td>Sertoli Cell Tumor</td>
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<td>Sex Cord Tumor with Annular Tubules (SCTAT)</td>
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<td>Leydig Cell Tumor</td>
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<td>Steroid Cell Tumor</td>
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<td>Stromal Luteoma</td>
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</table>
Granulosa Cell Tumor

- Average age mid-50’s; > 50% postmenopausal
- 70-80% have hormonally mediated symptoms
  - Premenopausal: Menstrual irregularity or amenorrhea
  - Postmenopausal: PMB
  - Androgenic: Rare, usually occur in young women
- 20-30% have nonspecific symptoms
- Pelvic exam → adnexal mass; > 90% unilateral
Pathologic Diagnosis of Granulosa Cell Tumor

| Cytology | Architecture | Immunohistochemistry | Molecular pathology |

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Pathologic Diagnosis of Granulosa Cell Tumor

- Cytology
- Architecture
- Immunohistochemistry
- Molecular pathology

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Granulosa Cell Tumor
Microscopic Patterns

- Cystic
- Microfollicular
- Diffuse
- Insular
- Trabecular
- Moiré – watered silk
- Macrofollicular
- Luteinized

Cystic Granulosa Cell Tumor