Selected Issues in the Pathologic Diagnosis of Ovarian Tumors

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Serous Tumors – Main Issues of consequence

1. Over calling serous borderline as Ca, and leading to undue aggressive treatment.
2. Under calling as borderline carcinomas without invasion (at least in the ovary). Always sample well particularly if invasion a possibility; In problematic cases urge staging which often helps.
3. Confusing borderline with microinvasion and borderline with low grade serous carcinoma
MUCINOUS TUMORS
INTESTINAL TYPE

1. Mucinous cystadenoma
2. Mucinous cystadenoma with focal atypia
3. Mucinous cystic tumor of borderline malignancy
   A. Not otherwise specified
   B. With intraepithelial carcinoma
4. Mucinous carcinoma
   A. Microinvasive
   B. Invasive
      i. expansile
      ii. infiltrative
Mural Nodules

- Conventional carcinoma
- Reactive nodules
- High grade carcinoma, anaplastic-spindled
- Mixed forms
- Sarcomas
Differential Diagnosis of Mucinous Neoplasms

1. The Benign-Borderline-Carcinoma Issue
2. Primary vs Metastatic (Appendix is distinctive)
3. Little Else!
Ovarian Mullerian Mucinous Papillary Cystadenomas of Borderline Malignancy
A Clinicopathologic Analysis

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Ovarian mullerian cystadenomas of borderline malignancy that contain foci of intestinal differentiation are well recognized. Borderline tumors have a maximum epithelial component that is characterized by papillary architecture similar to those of serous borderline tumors, however, have not been reported. Ovarian mucinous borderline tumors have been previously classified as either serous or mucinous tumors. Forty percent of the tumors were classified as having a mixed type. Forty percent were associated with endometriosis. Four tumors were complicated by peritoneal implants, one by both peritoneal implants and brousse nodules, and one by brousse nodules only. No patient had pseudomyxoma peritonei. Follow-up information was available on all the patients for a mean interval of 17 years. In two cases, tumors developed in the ovaries contralateral to a previous interval. Three tumors were localized with low-stage lesions; one tumor had metastasized to the contralateral ovary. 

Some Comments on Ovarian Endometrioid Carcinoma

1. Commonly associated with endometriosis and/or adenofibroma.
2. Endometriosis associated tumors may be seen in postmenopausal years.
3. Not quite as tight an association with endometriosis as pertains to clear cell carcinoma.
4. Remember propensity for metastatic colon carcinoma to mimic endometrioid carcinoma.
5. Can see micropapillary patterns just as in uterus.
6. Commonly mimic sex cord tumors (this rare in uterus).
7. Rarely see corded and hyalinized variant (commoner in uterus).
DIFFERENTIAL DIAGNOSIS OF CLEAR CELL CARCINOMA

- Endometrioid carcinoma
- Metastatic tumors
- Yolk sac tumor
- Dysgerminoma
- Steroid cell tumor
- Struma ovarii
RENAL CELL CARCINOMA METASTATIC TO OVARY
– 9 CASES

• Ov t first in five patients
• Ov t second in four patients
• 5 months to 11 years after
• Solid or solid and cystic – 2 bilat

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METASTATIC RENAL CELL CARCINOMA VS. CLEAR CELL CARCINOMA OF FGT

- Striking sinusoidal vascular pattern
- Absence of eosinophilic hyaline basement membrane-like material
- No intraluminal mucin
- Absence of mixed histologic patterns (solid, papillary, tubulocystic, glandular)
- Homogeneous clear cell type without hobnail cells