Interesting Case Conference

08/13/2012
HISTORY

• 31 year old female

• PMH
  ▪ Familial adenosis polyposis syndrome diagnosed @ age 17 with colectomy in 1999
  ▪ Polycystic ovarian syndrome
  ▪ AND …
**HISTORY**

- Retroperitoneal mass, left, resection (5/2012): 
  Adrenocortical carcinoma, high-grade by mitotic activity.

<table>
<thead>
<tr>
<th>ADRENOCORTICAL CARCINOMA</th>
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<tbody>
<tr>
<td>Tumor Size: 11.9 x 9.1 x 6.2 cm</td>
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<tr>
<td>Tumor Weight: 1,243 grams, including kidney</td>
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<tr>
<td>Capsular Invasion: Yes</td>
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<td>Vascular Invasion: Yes</td>
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<td>Surgical Margins: Negative</td>
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<td>Necrosis: Yes</td>
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<td>Mitotic Rate: 148 mitoses per 50 high power fields</td>
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<td>Grade: High</td>
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<tr>
<td>Lymph nodes status: N/A</td>
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<td>Extra-adrenal extension: Yes, focal soft tissue extension</td>
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<td>Stage: III</td>
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<tr>
<td>Immunohistochemistry: (+) α-inhibin, synaptophysin, CD56, calretinin (focal), melan-A (-) myoglobin, CAM 5.2, EMA</td>
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HISTORY

• Subsequent CT and PET scans
  - More lesions seen than before adrenalectomy
    (bilateral pulmonary nodules, liver nodules, mid-abdomen lesion)
Right pulmonary nodule:
Fine needle aspiration and core biopsy

Looking @ cluster edges for hints
Diff-Quik stain:
Looking through lighter areas of clusters
Diff-Quik stain
Pap stain
Pap stain
Pap stain
Concurrent Core Bx
DIFFERENTIAL DIAGNOSIS

• Adrenocortical carcinoma

• But if you didn’t know the history…
  ▪ Histiocytes
  ▪ Renal cell carcinoma
  ▪ Clear cell carcinoma
  ▪ etc.

ThinPrep
FINAL DIAGNOSIS

• Lung, right pulmonary nodule, fine needle aspiration and core biopsy:
  - Positive for malignant cells, morphologically consistent with metastasis from the patient's adrenocortical carcinoma.
  - Procedures performed at an outside hospital; blocks not available for confirmatory immunostains.

• LESSONS
  - As always, history is important.
  - For thick clusters, look at the edges for better visualization of the cells.
FOLLOW-UP

• Recommendation of doxorubicin, cisplatin, etoposide, and mitotane regimen.