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Annual Spring Slide Seminar

Case #1

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Case 1

History

- 59 y.o. male with urinary retention
  - On Hytrin 7 mg, increased to 10 mg
- PSA: 3.03 (10/2/04) to 3.71 (8/21/05)
- CT scan (8/29/05):
  - Prostate 7 x 6.5 x 6 cm, 142 g
- PE (10/4/06): DRE - smooth and large prostate
- Prostate Biopsy (10/6/05): Benign
- Open Suprapubic Prostatectomy (10/13/05)
- “Adenoma” enucleated from capsule
Gross Specimen

- Weight: 89 grams
- Four portions of tissue from 4 x 3 x 1.5 to 6 x 5 x 3.5 cm
Prostatic Stromal Tumor of Uncertain Malignant Potential (STUMP)
Prostatic STUMP Defined

- A proliferative lesion of specialized prostatic stroma
- Prostatic stroma: hormonally responsive, participates in complex epithelial-stromal interactions
- Can induce epithelial morphogenesis, differentiation, proliferation and expression of prostate-specific proteins
Prostatic STUMP
Clinical

- Incidence: Rare (< 100 cases in literature)
- Age: 25-86 yrs, mean 54, peak 60-70’s
- 86% 5th decade or greater
Prostatic STUMP
Clinical Presentation

- Urinary retention
- Abnormal DRE
- Hematuria
- Hematospermia
- Palpable rectal mass
- Rectal pain
Size: Microscopic to 58 cm
- Tan to White
- Cystic or Solid and Cystic
- Origin: Posterior, Verumontanum
  - Protrusion basally
  - Compression of adjacent structures
- Hypercellular stroma with cytologically atypical cells with benign glands
- Hypercellular stroma with minimal cytologic atypia with benign glands
- Hypercellular stroma +/- atypia with “leaflike pattern” - Phyllodes Tumor
- Hypercellular stroma without cytologic atypia without glands
Prostatic STUMP
Immunohistochemical Results

- Reaction Patterns
  - Positive for
    - Vimentin
    - CD 34
    - Progesterone receptor
    - (Desmin, SMA, MSA)
  - Non-reactive for
    - S-100 protein
    - Keratin
Prostatic STUMP
Differential Diagnosis

- Solitary fibrous tumor
- Prostatic stromal sarcoma
- Leiomyosarcoma
- Rhabdomyosarcoma
- Carcinosarcoma
- Pseudosarcomatous myofibroblastic proliferation/pseudosarcomatous fibromyxoid tumor/postoperative spindle cell nodule
Prostatic STUMP Behavior

- Diffusely infiltrative in prostate gland
- Can extend into adjacent tissues
- Prone to local recurrences
- May progress to prostatic stromal sarcoma
- Small subset: Focal, no progression or recurrence
Prostatic STUMP Treatment

- Dependent on Local Symptoms
- Surgery
  - Radical prostatectomy
  - Radical cystoprostatectomy
## Prostatic STUMP vs PSS

<table>
<thead>
<tr>
<th>Feature</th>
<th>PSTUMP</th>
<th>PSS</th>
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<tbody>
<tr>
<td>Cellularity</td>
<td>Increased</td>
<td>Markedly Increased</td>
</tr>
<tr>
<td>Mitoses</td>
<td>Absent or Rare</td>
<td>Present</td>
</tr>
<tr>
<td>Atypia</td>
<td>Common</td>
<td>Common</td>
</tr>
<tr>
<td>Necrosis</td>
<td>Uncommon</td>
<td>Common</td>
</tr>
<tr>
<td>Stromal Overgrowth</td>
<td>Uncommon</td>
<td>Common</td>
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