Urethral Complications of Prostate Cancer Management

Types of Prostate Cancer Therapy
- Surgical
  - radical retropubic
  - radical perineal
  - laproscopic
  - robotic
- Radiation
  - external beam
  - brachytherapy
  - combined
- Cryotherapy
  - thermal ablation

Types of Complications
- rectourinary fistula
- bladder neck stenosis
- posterior urethral stenosis
- bulbar urethral stricture
**Rectal Injury**

**Immediate Management**

- divert urine
- urethral
- suprapubic
- defect closure - surgical injury
- multi layer
- bowel diversion
  - colostomy
  - ileostomy

**Management**

**Rectourinary Fistula**

- perineal approach
  - trans-sphincteric
  - between rectum and prostate
  - muscle flaps
  - transabdominal - less likely
  - transanal
- salvage prostatectomy
  - large > 2.0 cm
- rectal bladder
  - large > 3.0 cm

**Management**

**Bladder Neck Stenosis**

- excision and primary anastomosis
- urolume stent
  - after internal urethrotomy

**Management**

**Bulbar Urethral Stricture**

- excision and end-to-end anastomosis
- buccal mucosa graft
- penile fasciocutaneous flap
- two-stage procedure
  - buccal flap
  - no stents
Management: Incontinence After Treatment of Complication

- AMS-800 urinary sphincter prosthesis
  - bulbar cuff - single
  - transcorporal bulbar cuff
- male perineal sling
  - stress incontinence only

Bladder Neck and Posterior Urethral Stenosis
Bladder Neck Stenosis
After Radical Prostatectomy
Posterior Urethral Stenosis After Brachytherapy and XRT
Anterior Urethral Stricture
After Radical Prostatectomy and XRT
Rectourinary Fistula and Urethral Stenosis
Membranous Stricture
After Brachytherapy
<table>
<thead>
<tr>
<th>Procedure</th>
<th>No.</th>
<th>Success</th>
<th>% Success</th>
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<tbody>
<tr>
<td>Urethral Stenosis</td>
<td>41</td>
<td>35</td>
<td>85</td>
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<tr>
<td>Urolume Stent</td>
<td>20</td>
<td>16</td>
<td>80</td>
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<tr>
<td>Posterior or Bladder neck only</td>
<td>20</td>
<td>7</td>
<td>35</td>
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<tr>
<td>Continent following procedure</td>
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<tr>
<td>Perineal Urethrostomy</td>
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<tr>
<td>Rectourinary Fistula</td>
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<td>96</td>
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<tr>
<td>Rectourinary fistula + stricture</td>
<td>10</td>
<td>10</td>
<td>100</td>
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</tbody>
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* Data as of July 2007