COMORBID ERECTILE DYSFUNCTION IN MEN UNDERGOING SURGICAL INTERVENTION FOR POST PROSTATECTOMY URINARY INCONTINENCE

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Introduction and Objectives: As advances in prostate cancer treatment have impacted survival, the focus on improving quality of life related outcomes and patient satisfaction is evolving. Rates of post-prostatectomy urinary incontinence (PPI) and erectile dysfunction (ED) in the literature vary widely. Data regarding the relationship between these critical quality of life parameters is sparse and substantial controversy persists concerning the anatomic factors responsible for both complications. Herein we sought to evaluate effects of treatment of PPI on patient erectile function, with the hypothesis that surgical treatment of PPI would improve erectile function.

Methods: Retrospective chart review was performed for patients who had undergone artificial urinary sphincter (AUS) implant or bulbar male sling from 1/2004 to 7/2009. Data collected included American Urologic Association Symptom Index (AUASI), Sexual Health Inventory for Men (SHIM), pre-prostatectomy erectile function, nerve sparing or non-nerve sparing status at prostatectomy, and complications.

Results: Eighty radical prostatectomy patients met inclusion criteria. Twenty-nine patients underwent male sling and fifty-one patients AUS with an average follow-up of 9.5 and 7.5 months respectively. The patient's were divided into subgroups including pre-prostatectomy erectile function, nerve sparing status, and placement of an inflatable penile prosthesis (IPP) and pre and post operative SHIM scores were compared. (Results are in Table 2) Although SHIM score overall showed a statistically significant improvement from 3.9 to 7.0 (p = 0.002) this was largely the result of 13 (16%) patients who had IPP placed, validated by analysis of the remaining 67 patients who had no change in SHIM (4.2 to 4.5, p = 0.661). Excluding those who underwent IPP, all average SHIM scores were well below the definition of severe ED (SHIM < 11).

Conclusion: This analysis demonstrates the comorbid nature of incontinence and ED in the post-prostatectomy population. All patients requiring surgical intervention for their incontinence had concomitant severe erectile function. Curiously, treatment of PPI did not substantially impact erectile function in any subgroup, including patients who underwent nerve sparing procedures. The only intervention that significantly improved erectile function in this population of men requiring surgical treatment for PPI was placement of a penile prosthesis.

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Introduction

• Data regarding the relationship between erectile dysfunction (ED) and post prostatectomy incontinence (PPI) is sparse and controversy persists concerning the anatomic factors responsible for both complications.

Aims:
1.) What is the incidence of erectile dysfunction in men undergoing surgical intervention for PPI at our institution?
2.) Does surgical intervention for PPI improve erectile function?

Results

• Eighty patients were identified. Demographics and patient characteristics are represented in Table 1.

• Pre and post anti-incontinence surgery SHIM scores are demonstrated in Table 2. Regardless of nerve sparing status or pre-prostatectomy erectile function, there was no difference in SHIM score after treatment of post prostatectomy SUI. Clinically significant improvement in SHIM scores were only demonstrated in patient who had undergone IPP placement.

Conclusions

• 100% of men undergoing surgical intervention for PPI had significant ED (SHIM 3.9) prior to intervention.
• No evidence of clinically significant improvement in erectile function after PPI surgical intervention alone was observed.
• First study, to our knowledge, to show 100% incidence of comorbid ED in men with PPI.

Limitations:
Retrospective design
Small sample size, single center experience
Inability to assess patient desire with SHIM (IIEF-5) questionnaire.

Future Directions:
Larger sample
Prospective Design
Utilize full IIEF, with special attention to both function and desire.

Methods

• Inclusion criteria included men status post prostatectomy with stress urinary incontinence requiring surgical intervention.
• Data assessed included demographics, nerve sparing status, type of anti-incontinence procedure, pre-prostatectomy (baseline) erectile function, AUASI, pre and post anti-incontinence SHIM, complications and outcomes.

Results

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TABLE 1: Patient Characteristics

| Age (n=80) | 65.05 (mean) |
| Nerve Sparing (n=39) | 49% |
| AUS (n=51) | 64% |
| Sling (n=29) | 36% |
| IPP (n=13) | 16% |

TABLE 2: Pre and Post-Op SHIM

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<th>Preop SHIM</th>
<th>Postop SHIM</th>
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<tr>
<td>All (n=80)</td>
<td>3.9</td>
<td>7.0</td>
<td>0.002</td>
</tr>
<tr>
<td>AUS (n=51)</td>
<td>3.5</td>
<td>7.1</td>
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<tr>
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<td>7.7</td>
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<tr>
<td>Non Nerve Sparing (n=13)</td>
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<td>3.6</td>
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<tr>
<td>Pre-existing ED (n=32)</td>
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<td>6.1</td>
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<tr>
<td>IPP (n=13)</td>
<td>2.6</td>
<td>20.2</td>
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</tr>
<tr>
<td>No IPP (n=67)</td>
<td>4.2</td>
<td>4.5</td>
<td>0.661</td>
</tr>
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