

# Treatment Options for Post-Prostatectomy Incontinence

Jaspreet S. Sandhu<sup>\*,†</sup>

From the Urology Service, Department of Surgery, Memorial Sloan Kettering Cancer Center and Department of Urology, Weill Cornell Medical Center, New York, New York

## Abstract

**Introduction:** Persistent urinary incontinence after radical prostatectomy is not uncommon and it results in negative consequences on quality of life. Multiple treatment options are available for men with post-prostatectomy incontinence. We reviewed the current state of available treatment options for men with post-prostatectomy incontinence.

**Methods:** Select literature from 1970 until 2013 was reviewed. This literature along with the current state of the art of clinical practice and relevant American Urological Association guidelines were incorporated in preparing this study.

**Results:** Treatment options for post-prostatectomy incontinence vary. They include pelvic floor muscle exercises, pharmacotherapy, urethral bulking agents, male slings, artificial urinary sphincters, and other novel and emerging procedures.

**Conclusions:** Multiple treatment options exist for post-prostatectomy incontinence but most patients can be treated effectively. The degree and type of incontinence determine which options are appropriate and likely to be successful for patients.

*Key Words:* prostate; prostatectomy; urinary incontinence; suburethral slings; urinary sphincter, artificial

## Abbreviations and Acronyms

AUS = artificial urinary sphincter

PFME = pelvic floor muscle exercise

PPI = post-prostatectomy incontinence

RP = radical prostatectomy

SUI = stress urinary incontinence

Urinary incontinence is a common adverse event after RP. It is usually self-limited and resolves within a year of surgery. Although persistent PPI is uncommon, it has a great impact on quality of life and economic burden. Fortunately PPI treatment is straightforward and can be effective.

Before PPI treatment it is important to understand the natural history of urinary function recovery after RP. Saranchuk et al reported continence rates in 647 patients followed prospectively.<sup>1</sup> Of the men 87% were continent, defined as pad free, 1 year after RP and 93% were continent at 2 years. Therefore, surgical intervention is usually reserved for patients with PPI beyond 1 year after RP.

## Materials and Methods

### Basic Evaluation

Patients with bothersome PPI more than 1 year after RP should be systematically evaluated. A structured history can determine the type of incontinence and whether another pathological condition should be suspected. The degree and timing of incontinence should be noted. SUI is associated with activity and usually not present at night while urge urinary incontinence occurs during the day and night, and can manifest as uncontrollable leakage of a urine stream instead of a few drops of urine. Most patients claim that the urine stream is much stronger after RP than preoperatively. In men with a weaker or stable stream an anastomotic stricture should be ruled out. The degree of leakage measured by pad tests or the number of standardized pads used should also be recorded. This can help determine the kind of therapy to offer and follow the response to therapy.

Submitted for publication June 2, 2014.

\* Correspondence: 1275 York Ave., New York, New York 10065 (telephone: 646-422-4399; FAX: 212-452-3323; e-mail address: sandhu@mskcc.org).

† Financial interest and/or other relationship with American Medical Systems.

Further testing, including urodynamic testing or cystoscopy, can be performed to help guide therapy but it is not mandatory. Cystoscopy should be performed if an anastomotic stricture or another bladder pathology is suspected.

## Discussion

### *Conservative Measures*

A structured PFME program is effective for hastening the return of continence immediately after RP.<sup>2</sup> Therefore, it is routinely recommended postoperatively. Today PFME in the setting of persistent PPI is also considered the standard of care. Goode et al performed a randomized, controlled trial comparing PFMEs, PFMEs with biofeedback and pelvic muscle stimulation to controls in men with PPI 1 to 17 years after RP.<sup>3</sup> Eight weeks of PFMEs significantly improved PPI compared to the control arm. Also, each treatment arm showed improvement in urinary symptoms as measured by the I-PSS (International Prostate Symptom Score). Adding biofeedback and pelvic stimulation did not improve outcomes compared to PFMEs alone.

It is mainly because of the evidence that all patients who present with PPI should be offered a PFME regimen for at least 2 months. Further conservative measures, such as decreasing fluid intake, avoiding bladder irritants and voiding on a schedule during the day, seem to be prudent initial interventions for patients who present for treatment of PPI.

### *Pharmacological Interventions*

Patients with symptoms of urge urinary incontinence or overactive bladder and those with urodynamically proven detrusor overactivity in whom conservative measures have failed should be treated with anticholinergic medication. While there is little evidence in this population, the  $\beta_3$  agonist mirabegron may also have a role in men who cannot tolerate anticholinergics. Patients in whom medical therapy fails can probably be treated using the algorithm provided in the AUA guidelines for overactive bladder.<sup>4</sup> According to the guidelines the next line of therapy offered is botulinum toxin A injections and sacral neuromodulation. Notably in patients with concomitant SUI who ultimately also undergo AUS implantation botulinum toxin injection may carry a higher risk of urethral cuff erosion because these patients may need repeat injections.

Pharmacological treatment of SUI is not common in the United States. However, the serotonin-norepinephrine reuptake inhibitor duloxetine is recommended in Europe for SUI. Cornu et al performed a randomized trial comparing duloxetine to placebo and noted that the treatment arm had a significantly lower rate of incontinence episodes as well as improved quality of life.<sup>5</sup>

### *Urethral Bulking Agents*

Endoscopic treatment using urethral bulking agents such as collagen is easy to perform and currently the most common procedure in the United States for male urinary incontinence.<sup>6</sup> The ease of these agents is balanced by the fact that repeat

applications are often required for any durable success and patients may ultimately need alternative surgery in the future.<sup>7</sup> The continence rate improves in up to 50% of men with a duration of up to 6 months, although the complete cure rate is poor at around 17% with the average patient receiving 3 injections.<sup>8</sup>

An advantage of urethral bulking agents is that they do not seem to preclude the use of other anti-incontinence procedures in the future. Gomes et al compared continence outcomes in 23 patients treated with collagen followed by an AUS and 7 treated with an AUS alone.<sup>9</sup> Subsequent AUS placement did not appear to be affected by the injections. However, patients with severe SUI had better outcomes earlier when an AUS was the initial therapy, saving time and costs.

### *Male Slings*

Male slings are indicated for patients with mild to moderate urinary incontinence. Urethral compression procedures were popularized in the early 1970s when Kaufman described such techniques to treat PPI.<sup>10</sup> The Kaufman procedures along with the introduction of slings for female SUI led to the development of multiple types of male urethral slings.

In the 1990s a male sling was popularized that consisted of 3 synthetic bolsters placed under the bulbar urethra and suspended above the rectus fascia in the lower abdomen via sutures through the retropubic space.<sup>11</sup> In 2001 a bone anchored variant of the male sling was reported.<sup>12</sup> The initial success rate of this technique was 87.5% in 14 men followed a mean of 12 months. Comiter reported a 76% urinary continence rate in men with PPI using the bone anchored InVance® Male Sling System, which led to a resurgence in the use of male slings for male SUI.<sup>13</sup>

In 2007 Rehder and Gozzi first reported clinical use of the transobturator polypropylene mesh AdVance™ Male Sling system.<sup>14</sup> This has replaced the bone anchored version. Medium term followup of AdVance slings was recently reported with sustained 3-year 75.7% cure/improvement rates.<sup>15</sup>

Patient selection is essential to ensure good postoperative outcomes in patients with slings. The volume of preoperative incontinence affects the cure rate of sling surgery. Particularly patients with a 24-hour pad weight of greater than 400 gm have only a 40% cure rate and little improvement in quality of life scores.<sup>16</sup>

If given a choice, patients prefer male slings over the AUS.<sup>17</sup> This is likely due to the fact that if successful, they require no manipulation and result in an essentially normal voiding pattern. Furthermore, if unsuccessful, male slings are unlikely to affect the results of an AUS placed at a later time.<sup>18</sup> Patients who previously received radiotherapy are probably not good candidates for a male sling. In a study of 230 patients who underwent RP with adjuvant radiotherapy followed by a male sling Bauer et al found an overall 23.9% complication rate.<sup>19</sup> Most complications were self-limiting urinary retention. Persistent moderate perineal pain was experienced by 0.4% of patients.

Multiple other compressive devices are available around the world, although long-term outcome studies are not routinely available. Two adjustable male slings, the Remeex System (Neomedic International, Terrasa, Spain) and the Argus

Download English Version:

<https://daneshyari.com/en/article/4277072>

Download Persian Version:

<https://daneshyari.com/article/4277072>

[Daneshyari.com](https://daneshyari.com)