# Podium Session 2: Functional Urology
# June 27, 2010, 1330-1430

## POD-02.01

### Impact of Medical Therapy on Transurethral Resection of the Prostate (TURP): Two Decades of Change

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**Introduction and Objectives**: The introduction of medical therapy for symptomatic benign prostatic hyperplasia (BPH) during the last 2 decades may have shifted the indications, patient characteristics and outcomes in men undergoing TURP over the last 2 decades (1988 to 2008).

**Methods**: All patients who underwent TURP for symptomatic BPH in a geographically defined area at our Institution in 1998 (before general introduction of medical therapy for BPH), 1998 (when medical therapy was becoming an important therapy for BPH), and 2008 (medical therapy was the primary initial therapy for BPH) were reviewed. We assessed total number of TURPs, indications for surgery, patient age, health status, weight of resected tissue, and pre- and postoperative complications.

**Results**: There was a 60% decrease in TURPs from 1988 (n = 157) to 1998 with a moderate increase in number in 2008. Failure of medical therapy was not an indication in 1988 but was at least one of the indications for TURP in 36% and 87% in 1998 and 2008 respectively. No significant differences were found in age. There was a significant rise in patients presenting with chronic urinary retention at the time of their TURP (15% in 1988, 20% in 1998 and 39% in 2008), but fewer patients presented with hydronephrosis in 2008 (7.1%) compared to 1998 (12.5%) but this was still much higher than in 1988 (1.3%). Postoperative days in hospital decreased over the decades (from 4.1 days in 1988 to 2.7 in 1998 and then to 2.1 days in 2008); however, the number of patients discharged with a catheter (failure to void) increased over 2 decades (from 3.2% to 12.5% to 28.6% respectively).

**Conclusions**: The dramatic decrease in the number of TURPs performed for symptomatic BPH at our Institution since the advent of medical therapy has now leveled off. However, the proportion of TURP patients presenting with urinary retention and the number being discharged with a catheter after a failed trial of voiding has increased. This would suggest that although the average age and medical co-morbidities of our TURP patients has not dramatically changed, patients currently presenting for TURP appear to have experienced more pre-TURP progression and poorer immediate outcomes over the decades from 1988 to 2008. Could this be a direct result of increasing reliance on medical therapy?

## POD-02.02

### Paradigm Shift in Inflatable Penile Prosthesis Sizing? Single Surgeon Outcome Analysis and Nationwide Database Analysis Evaluating Contemporary Surgical Trends

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**Introduction and Objective:** The primary patient source of dissatisfaction following inflatable penile prostheses (IPP) surgery is penile length compromise, which can be due to broad underlying patholphysiologies including post-prostate cancer treatment (surgery, radiation or brachytherapy) and diabetes. Traditional teaching dictates that the implanting surgeon choose shorter sizing when measuring corporal length at the time of IPP placement if there is a discrepancy in the measuring of the two sides of the corpora or, as more commonly occurs, sizing that equals the symmetrical corporal lengths measured. In fact, some prosthetic surgeons advocate using shorter than measured corporal lengths. Recently, a novel New Length Measurement Technique (NLMT) has been developed and we present patient outcome data and an evaluation of current sizing trends. Methods: Retrospective primary IPP chart reviews of 57 IPP patients comparing a multi-surgeon practice (n = 10, the multisurgeon group (MSG)) versus 57 IPP patients from a single surgeon (SS) prior to using the NLMT technique versus 283 patients with more that one year follow up done by the same single surgeon [GH] (SS NLMT). American Medical Systems (AMS) and Coloplast data on cylinder sizes used nationwide over the past several years was also analyzed.

**Results:** The average cylinder size plus rear tip extender length utilized by the MS group was 19.05 cm, compared to SS 20.11 cm and SS NLMT 23.37 cm. A single distal erosion in the MS group (semi rigid rod) was noted, with none in the SS or NLMT surgery groups. AMS data suggests an increase in percentage sales of 21 and 24 cm IPP cylinders with a resultant decrease in percentage sales of 12 and 15 cm IPP cylinder over the past 2 years. Coloplast cylinder distribution is similar (Fig. 1).

**Conclusions:** There appears to be a paradigm shift in utilizing longer cylinders when analyzing changes in cylinder size sales for IPP implantation. No increases for distal erosion in the SS experience with NLMT is evident when compared to traditional sizing outcomes.

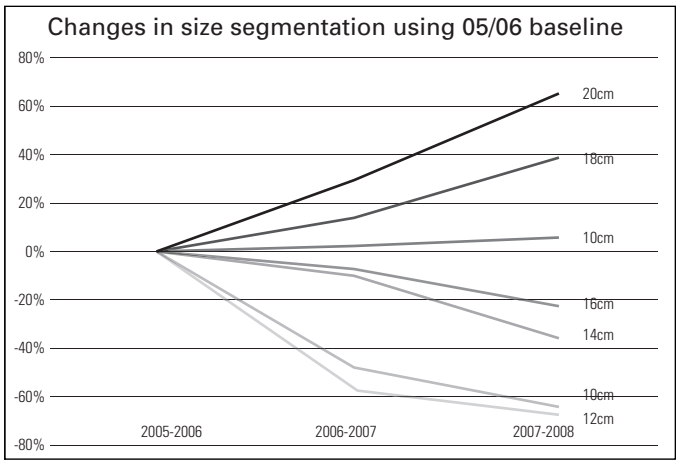


***Fig. 1.*** POD-02.02.

## POD-02.03

### Men's Health, Endothelial Dysfunction and Erectile Dysfunction: 2005-2008 Canadian Physician Practice Patterns for 1644 Men Identifies Continued Need for Development of Health Care Delivery Strategies

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**Introduction and Objective**: The relationship between endothelial dysfunction and erectile dysfunction (ED) is irrefutable. Given the data from

Inman et al (Mayo Clin Proc 2009), and previously Thompson et al (JAMA 2005), the importance of screening for ED cannot be underestimated, especially in the third through fifth decades, as ED is associated with a marked increase in the risk of future cardiac events. However, physician-practice analyses to date have not indicated that ED is routinely screened for as part of patient care, especially in these younger patients.
**Methods**: Annually from 2005 through 2008, a total of 528, 380, 381, and 355 Canadian men, respectively, were surveyed by third-party national data-gathering organizations (2005-2007 Maritz Health and 2008 IPSOS, Canada) for analysis of patient encounters with primary care, urologist or other physicians regarding ED evaluation and treatment.
**Results**: Physician-initiated evaluation for erectile dysfunction is poor. For all years (n = 1644 men), greater than 85% of all ED evaluation (Question "Who initiated the discussion of ED") was initiated by the patient. ED screening was rare as part of periodic health evaluations (routine check-up). Of PDE-5 inhibitor prescriptions, 77-89% (dependent year/agent) were prescribed by primary care physicians. It is interesting to note that by 2008, "first" information on ED via the internet rose to 15%; other sources of information including pharmacists, other media etc, seem to play a minor role in the Canadian healthcare environment.
**Conclusions**: A key aspect of men's health includes identifying and modifying cardiovascular risk factors prior to onset of morbidity. As gatekeepers for the majority of ED health initiatives, new strategies for urologists to inform and educate Canadian primary care physicians and patients are of great importance. Delivery of quality sexual healthcare and endothelial health/screening is an unmet patient need in many cases. Contemporary data demonstrate that the CUA must continue to demonstrate leadership on local and national levels for educating not only the patient but also our non-specialist colleagues, in order to improve male health care.

## POD-02.04

### Impact of Advance Male Sling on Post-Radical Prostatectomy Climacturia: Robust Prospective Cohort Results at One-Year Follow-Up

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**Introduction and Objective:** Orgasm associated incontinence, that is the inadvertent leakage of urine at orgasm, has received little attention in the literature but confers significant quality-of-life and health-system impact post-radical prostatectomy (RP). Recent reports estimate occurrence of up to 20-48%; in Mulhall's report of 475 RP patients (pts), 96 reported orgasm associated incontinence (J Urol 177(6): 2223-6) independent of age, nerve sparing or surgical margin status, seminal vesicle or lymph node involvement, preoperative erectile function, nocturnal erections, libido level or daytime continence. In this study, we prospectively evaluate and report the first series determining the impact of the Advance Male Sling (American Medical Systems, MN) for men with pharmacologically treatment-resistant mild-to-moderate incontinence and climacturia.
**Methods**: Prospective data on a specific population of 15 pts with incontinence and climacturia was collected. The primary endpoint was complete resolution of climacturia, with concurrent evaluation of post-sling urinary control. All pts were at least 1.5 years post-RP (2 pts with adjuvant radiotherapy) prior to incontinence surgery, and underwent placement of the AdVance male sling after evaluation consisting of history, physical examination, determination of pad-per-day (PPD) incontinence, cystoscopy, and video urodynamics/pad weight tests as indicated for 3 or more ppd leakage. The pts underwent outpatient re-evaluation at 2, 6 and 12 weeks post-surgery and ongoing treatment efficacy was assessed q6 months with regards to pad-free status, flow rate, and post-void residuals in addition to yes/no of any urinary leak during sexual activity.
**Results**: Median pt follow-up is 50 weeks (range 12-71 weeks). Age was 67 +/- 6 yrs. Preoperative pad use ranged from 1- 4 pads/day. All men had complete resolution of climacturia. 13/15 (87%) pts were completely dry with no pad use, and 2/15 pts reported persistent 1 PPD incontinence; these were men initially identified with 2+ PPD leakage and concurrent detrusor overactivity on urodynamics (one post adjuvant radiation), and were counselled regarding potential limitations of the sling approach. No sling infections or revision surgery were reported, and post-procedure transient urinary retention did not require secondary surgical intervention.
**Conclusions**: The Advance Male Sling represents a safe and efficacious treatment for mild to moderate incontinence following RP and prospective data specific to this population supports resolution of concurrent climacturia at 1-year follow-up. Multicentre confirmation of this clinically important outcome, and determination of patient factors predictive of potential non-resolution for climacturia following surgery are required.

## POD-02.05

### Two-Year Efficacy and Safety of Simultaneous Placement of an Inflatable Penile Prosthesis and Advance Male Sling for Erectile Dysfunction and Incontinence

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**Introduction and Objective:** Surgical placement of a 3-piece inflatable penile prosthesis (IPP) and Advance Male Sling (MS) (American Medical Systems, MN) is an important treatment option for men with concurrent treatment-resistant erectile dysfunction (ED) and mild-to-moderate incontinence, especially following treatments for prostate cancer. Medium to long-term experience of a simultaneous approach is reported.
**Methods**: Prospective data for 22 patients treated by simultaneous placement of the Advance MS and a 3-piece IPP was collected. Patients were followed for postoperative care at 1, 2 and 6 weeks post-surgery (daily inflation of the IPP at 2 weeks), and returned to full, unrestricted activities including intercourse at 6 weeks. Ongoing treatment efficacy is assessed q6 months; interval questionnaire data was supplemented by phone interviews.
**Results**: Patient follow-up of 22 months (mdn) is reported. Operating time was 92 min (range 49-102). IIEF-5 scores increased by 18.6 +/- 0.9, with 18/22 patients using the IPP for intercourse; 16/18 (89%) patients describe themselves as "satisfied" or "very satisfied" with the penile implant and 2/18 (11%) are "unsatisfied" (both due to penile length loss). Preoperative pad use ranged from 1- 5 pads/day. Two out of 22 patients (10%) reported persistent incontinence requiring daily pad use; these were men with 3-5 ppd leakage prior to surgery and were counselled regarding potential limitations of the sling approach in this group. These are men outside of standard inclusion criteria for MS. 19 men (86%) report complete continence and 1 reports the "occasional" use of a protective pad (0-1 pad/week). Four of 22 patients (18%) experienced urinary retention postoperatively lasting from 3-10 days, which resolved without secondary surgical intervention. Prosthetic infections or revision surgery did not occur.
**Conclusions**: Simultaneous 3-piece IPP and Advance male sling placement is a safe, effective treatment combination for men suffering from post-prostatectomy urinary incontinence and erectile dysfunction. This approach may also confer a potential health-system economic benefit without compromise of patient outcomes.

## POD-02.06

### Initial Male Advance Sling Results in Management of Post-Prostate Surgery Incontinence

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**Introduction and Objective**: The male AdVance sling is a relatively new option for management of post-prostatectomy incontinence. We present our retrospective cohort of patients and their early outcomes.
**Methods**: Between January 2007 and November 2008, 31 male patients suffering from urinary incontinence after prostate surgery were treated with a transobturator synthetic sling (AdVance sling). Preoperative evaluation included history, urodynamics, and cystoscopy. Postoperatively, patients completed a self-administered mailed questionnaire describing

lower urinary tract symptoms, the impact of urinary incontinence and overall satisfaction (UDI-6, IIQ-7 and IPPS-QOL).

**Results**: Mean age of the patients was 69 years (57-81). Etiology of the incontinence was post-radical prostatectomy (28), post-TURP (1) and post high intensity focused ultrasound (HIFU) + TURP (1). Seven patients had previous radiation therapy. Mean time from prostate surgery to sling insertion was 5 years (range 1.2-12.3). Preoperative cystoscopy revealed bladder neck contraction in 11 patients. Preoperative urodynamics demonstrated a mean capacity of 461 mL (268-800), and valsalva leak point pressure (VLPP) of 110 cm $H^2O$ (57-247); 4/30 had reduced compliance and 9/30 had detrusor overactivity. Mean postoperative follow-up time was 21.75 months (range 12-32). Preoperatively the mean number of pads used per day was 2.3, and postoperatively this number decreased to 1.1 pads per day ($p < 0.001$). Postoperatively, 10/31 men (32%) did not wear pads any more, 7/31(23%) used 1 pad, 10/31(32%) 2 pads, and 4/31(13%) used more than 2 pads per day. After the implantation of the sling 3 patients required additional procedures – AUS was implanted in 1 patient and 2 patients underwent sling tightening. No patients have had problems with tape infection or fistulae. Mean postop IPPS QOL score was 2.4 (0-6): 53% were very satisfied, 13% mixed, and 33% were dissatisfied. In the 7 patients who had prior radiation the mean decrease in pads worn per day (2.14 to 1.57) was not significant ($p = 0.382$), whereas the decrease in pads per day in the 24 without prior radiation was significant (2.67 to 1.21).

**Conclusions**: Initial results from the AdVance sling indicate that it provides a good and reliable alternative to the artificial urinary sphincter for management of incontinence post prostate surgery. Prior radiation is an adverse factor. However, the majority of patients are satisfied with their continence outcome and quality of life after the AdVance sling.