CUA 2022 Annual Meeting Abstracts – Podium Session 1: BPH, GU Trauma and Reconstruction, Neurogenic Bladder, Urinary Incontinence and Voiding Dysfunction, Pediatrics

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POD-1.1

Teste Talk: A trial social media campaign to improve awareness of testicular torsion

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Introduction: Adolescent males are particularly prone to testicular torsion and subsequent orchiectomy. Early identification and presentation are critical for testicular salvage. A lack of knowledge about testicular pathologies, in particular torsion, as well as hesitancy to discuss genital concerns are fundamental, preventable barriers to presentation. We hypothesized that a social media campaign to improve awareness and knowledge of torsion and other urological conditions may overcome such barriers in this population.

Methods: A social media campaign, "Teste Talk," was created and promoted on Instagram and Facebook. Data was collected fporom June 1 to December 1, 2021. Instagram followers, Facebook page likes, Instagram and Facebook reach, post likes, and Instagram follower data were reviewed. Data was collected using the Facebook Business Suite. Paid promotions to improve awareness of the campaign were targeted towards 13–18-year-old males in Alberta and were funded by the Undergraduate Research Initiative Support Fund.

Results: The campaign reached 30 655 Instagram accounts and 20 114 Facebook accounts. The Instagram page amassed 369 followers, while the Facebook page gained 96 likes. Paid advertisements were seen 81 136 times on both platforms. All posts were liked 1229 times, commented on 342 times, and shared 1239 times across platforms. Instagram demographics indicated a 54% male to 46% female following. Of the 59% of followers living in Canada, 37% lived in Edmonton.

Conclusions: Testicular torsion remains a significant issue among adolescent males, and creative ways to disseminate information and increase knowledge about testicular pathologies are needed. Lack of knowledge in this group contributes to delays and increased risk of orchiectomy. To evaluate our intervention, we will measure orchiectomy rates in Edmonton before and after Teste Talk was introduced to determine if the campaign was effective in reducing rates of delayed presentation and orchiectomy.

POD-1.2

Multicentered assessment of factors associated with explantation of third-generation Adjustable Transobturator Male System (ATOMS)

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Introduction: The Adjustable Transobturator Male System (ATOMS) is a transobturator device with a non-circumferential adjustable hydraulic cushion used to treat stress urinary incontinence after prostate cancer treatment. The aim of this multicentered study was to assess the incidence and factors associated with device explantation.

Methods: A multicentered analysis was performed on patients treated for post-prostatectomy incontinence using the third-generation ATOMS at nine Canadian centers between September 2015 and August 2020. The primary outcome was incidence of device explantation. The secondary outcome was factors associated with device explantation. Univariable Cox regression was used to determine the association between explantation and clinical factors. Variables with strong univariable signals (two-tailed p-value <0.2) were analyzed in a multivariable regression model.

Results: A total of 289 patients with a mean age of 68.9 years were analyzed. Preoperative mean pad use was 4.2 pads per day (ppd), 31.5% of patients reported severe incontinence (five ppd), 33.9% had concurrent radiotherapy, and 19.4% had failed previous incontinence surgery. After a mean followup of 24.9 months, postoperative pads use decreased to 0.9 ppd (p<0.0001); 71.2% (n=210) of patients underwent adjustment a mean of 2.1 (0–9) times. Overall continence rate was 72.9% (215/289), 89.3% (n=258) of patients experienced >50% improvement, and 84.4% (n=244) of patients were satisfied with surgery. Twenty-five patients required device explantation (8.7%) due to infection/erosion of the scrotal port (18/25), urethral erosion (3/25), refractory pain (1/25), or lack of efficacy (2/23). On univariable analysis, concurrent radiotherapy (14.3% vs. 5.8%, p=0.02) and obesity (24.0% vs. 10.2%, p=0.008) were associated with device explanation, while patient age (p=0.98), diabetes (p=0.99), neurological disease (p=0.88), prior urethral stenosis (p=0.12), prior incontinence surgery (p=0.10), degree of incontinence (p=0.68), number of adjustments (p=0.93), and total volume instilled (p=0.67) were not. On multivariable analysis, radiation (hazard ratio [HR] 3.08, 95% confidence interval [CI] 1.30–7.34, p=0.01) and obesity (HR 3.65, 95% CI 1.24–10.70, p=0.02) remained independently associated with explantation.

Conclusions: Although the use of ATOMS is safe and efficacious, the explantation rate appears to fall between that of non-adjustable slings and the artificial urinary sphincter. Patients with prior radiation and obesity are at increased risk of explantation and should be counselled accordingly.

POD-1.3

Prospective assessment of genital pain in patients undergoing urethroplasty: Incidence, associations, and impact of surgery

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Introduction: Genital pain is an exceedingly common urological condition with a probable but unclear association with urethral stricture. The objective of this prospective study was to assess the incidence of genital pain in patients with urethral stricture and examine the impact of urethroplasty.

Methods: Over a seven-year period (2011–2018), patients were offered enrollment in a prospective, single-center study assessing patient-reported genital pain pre- and six months post-urethroplasty. Genital pain was assessed with the question, "Do you experience genital (scrotal or penis)

pain?" answered on a five-point scale (1=Never, 2=Occasionally, 3=Sometimes, 4=Most of the time, 5=All of the time). Responses of 3, 4, or 5 were considered clinically significant. Descriptive statistics were used to summarize findings, Wilcoxon signed-rank test was used to compare pre- and postoperative states, and logistic regression was used to evaluate the association between genital pain and clinical variables.

Results: A total of 387 patients completed enrollment, with a mean age of 49.5 years and stricture length of 4.5 cm. Preoperatively, 36.4% (141/387) of patients reported genital pain, with overall responses of 5.7% "all of the time," 9.8% "most of the time," 20.9% "sometimes," 29.7% "occasionally," and 33.9% "never." Patients with panurethral stricture reported significantly higher rates (57.1%) of preoperative pain (odds ratio [OR] 2.93, 95% confidence interval [CI] 1.32–6.50, p=0.008). Overall, pain scores improved post-urethroplasty (p<0.0001), with responses of 1.0% "all of the time," 3.6% "most of the time," 9.6% "sometimes," 21.2% "occasionally," and 64.6% "never." Specifically, in those reporting preoperative genital pain, 88.7% (125/141) experienced improvement (p<0.0001), 8.5% were unchanged, and 2.8% reported worse pain. On logistic regression analysis patients with penile strictures (OR 0.24, 95% CI 0.06–0.91, p=0.04), hypospadias (OR 0.14, 95% CI 0.02–0.88, p=0.04), and staged reconstruction (OR 0.22, 95% CI 0.05–0.90, p=0.04) were less likely to report improvement in genital pain (80.0%, 76.5%, and 69.2%, respectively). No identifiable clinical factor was associated with worsening pain. In the entire study cohort, 50.4% reported improvement in genital pain after urethroplasty, 37.0% were unchanged, and 12.7% reported worsening pain. In the overall cohort, patients undergoing staged reconstruction were again less likely to report an improvement in genital pain status (OR 0.49, 95% CI 0.26–0.95, p=0.04), with no factor associated with worsening of genital pain post-urethroplasty.

Conclusions: Genital pain is common in patients presenting with urethral stricture and more common in those with panurethral stricture. While the exact mechanism remains to be determined, genital pain improves in the majority of patients undergoing urethroplasty but less so in patients with penile strictures, hypospadias, and staged reconstruction.

POD-1.4

WATER vs. WATER II three-year update: Comparing Aquablation therapy for benign prostatic hyperplasia in 30–80 cm^3 and 80–150 cm^3 prostates

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Some of the results of this abstract were presented at the AUA's 2021 annual meeting. Medical and surgical retreatment rates will be presented for the first time.

Introduction: Surgical options are limited when treating large (>80 cc) prostates for lower urinary tract symptoms (LUTS) due to benign prostatic hyperplasia (BPH).[1,2] Aquablation therapy, a waterjet ablative procedure combining image guidance and robotics, is emerging as a safe and effective procedure with a short learning curve.[3-8] We aimed to compare the outcomes of Aquablation for small-to-moderate (30–80 cc) prostates with the outcomes for large (80–150 cc) prostates at three-year followup.

Methods: WATER is a prospective, double-blind, multicenter, international clinical trial comparing the safety and efficacy of Aquablation and transurethral resection of the prostate (TURP) in the treatment of LUTS/BPH in men 45–80 years old with a prostate of 30–80 cc.[5,6] WATER II is a prospective, multicenter, single-arm, international clinical trial of Aquablation in men with a prostate of 80–150 cc.[7,8] We compare 36-month outcomes among 116 WATER and 101 WATER II study subjects undergoing Aquablation.[7-9] Students' t-test or Wilcoxon tests were used for continuous variables and Fisher's test for binary variables.

Results: International Prostate Symptom Score (IPSS) scores improved from 22.9 and 23.2 at baseline in WATER and WATER II, respectively, to 8.0 and 6.5 at 36 months, with 36-month reductions of 14.4 and 16.3 points, respectively (p=0.247). At baseline, urinary flow rate (Qmax) was 9.4 and 8.7 cc/sec in WATER and WATER II, improving to 20.6 and 18.5 cc/sec, respectively (p=0.552), at 36 months. Improvements in both IPSS and Qmax were immediate and sustained throughout followup. At three years, 98% and 94% of treated patients were BPH medication-free in WATER and WATER II, respectively (p=0.038). At three years, 96% and 97% of treated patients were free from surgical retreatment in WATER and WATER II, respectively (p=0.613).

Conclusions: Three-year followup demonstrates that Aquablation therapy leads to sustained outcomes, few irreversible complications, and low retreatment rates for the treatment of LUTS/BPH independently of prostate volume.

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POD-1.5

Clinical predictors of obstruction in women with chronic lower urinary tract symptoms following remote urethral sling surgery

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Introduction: Assessment and management of patients with chronic lower urinary tract symptoms following remote urethral sling surgery is not well-defined. The objective of this study was to review patients with chronic urinary symptoms and a history of urethral sling surgery to determine the incidence and clinical predictors of obstruction.

Methods: A single-center, retrospective review was performed on all patients referred with >6 months of urinary symptoms and a history of urethral sling surgery. All patients underwent history, physical exam, cyst-

oscopy, and urodynamic testing (± fluoroscopy). Obstruction was identified by urodynamics using the Blaivas criteria or fluoroscopy. Clinical findings for patients with and without obstruction were compared. Patients undergoing sling lysis were assessed for postoperative outcomes.
Results: A total 106 patients were included with median age of 61 years (interquartile range [IQR] 19) and median time since sling surgery of five years (IQR 8). Fifty-nine percent (63/106) met the definition for bladder outlet obstruction. Patients with obstruction had significantly higher mean detrusor pressure (PDet) at maximal flow rate (Qmax) (35 vs. 19 cmH_2O), lower Qmax (6 vs. 14 mL/s), and higher postvoid residual (PVR) (217 vs. 72 mL) ($p<0.05$). A tight suburethral band was the only clinical finding significantly associated with obstruction ($p=0.003$). Time since sling surgery and type of urinary symptoms were not associated with obstruction. Fifty-one (80%) obstructed patients underwent sling lysis, after which 90% reported improvement in voiding symptoms, 41% reported improvement in storage symptoms, and 43% reported recurrent incontinence (median followup 18 months, IQR 20.5). Five patients (5/51, 10%) underwent redo sling procedure.
Conclusions: Obstruction is common in patients presenting with chronic urinary symptoms and a history of sling surgery; however, few clinical predictors exist and urodynamics may be warranted. Patients undergoing sling lysis should be observed for persistent storage symptoms and recurrent incontinence.

POD-1.6

Urinary symptoms in patients with indwelling catheters receiving intravesical onabotulinumtoxinA

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Introduction: Patients with long-term indwelling catheters may suffer from bothersome urinary symptoms, including bladder spasms, urine leakage, and urinary tract infections (UTIs) leading to a reduced quality of life.[1-3] The use of onabotulinumtoxinA (BotA) has been poorly studied as a treatment option for this patient population. This study aimed to assess the role of intravesical BotA injections on bothersome urinary symptoms in patients with indwelling catheters.
Methods: We performed a single-institution, retrospective chart review of patients who underwent intravesical BotA injections with indwelling catheters from January 2010 to May 2020. Patients with urethral or suprapubic catheters placed for 12 weeks or greater were included. Patient demographics, diagnosis, indications for indwelling catheter, method of catheterization, and control of urinary symptoms were recorded.
Results: A total of 29 catheterized patients were treated with intravesical BotA injections (Table 1); 28 had a diagnosis of neurogenic lower urinary tract dysfunction. Sixteen patients had suprapubic catheters, while 13 had urethral catheters. Approximately 50% and 25% of the patients were concurrently on an anticholinergic and a beta-3 agonist medication, respectively. Twenty-seven patients reported significant bladder spasms and 24 reported concerns with urinary incontinence prior to undergoing BotA (Table 2). Twenty-two (81%) patients reported a decrease in bladder spasms and 17 (71%) reported a decrease in the amount of leakage per urethra after BotA injections (Figure 1). The average number of BotA treatments was three per patient (range 1–8 treatments) (Table 3). All patients that reported benefit in urinary symptoms were treated with 200 units of BotA.
Conclusions: Our results suggest that BotA may be beneficial for treating bothersome urinary symptoms, mainly incontinence and bladder spasms, in patients with indwelling catheters. BotA appears to be safe and well-tolerated in this patient population.

POD-1.6. Table 1. Demographics of patient population

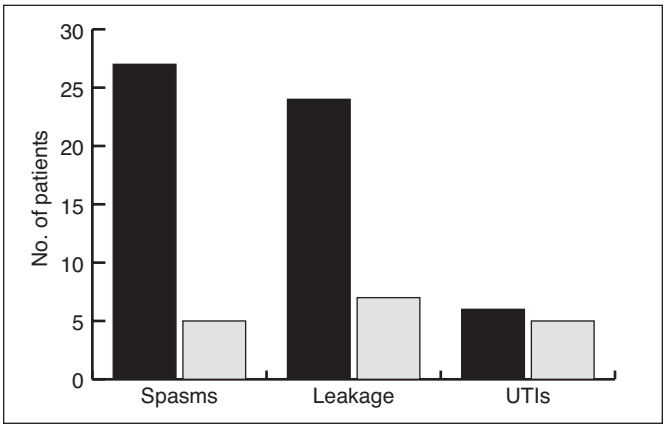
No. of patients	29
Median age, years (range)	58 (24–76)
Gender, n (%)	Female 12 (41) Male 17 (59)
Indication for catheterization	Incontinence with failed CICs (29)
Method of catheterization	Suprapubic (16) Urethral (13)
Neurogenic bladder, n (%)	28 (97)
Median duration of indwelling catheter prior to BotA, weeks (range)	107 (4 weeks–10 years)

POD-1.6. Table 2. Indication for BotA treatment

	Yes, n (%)
Urinary leakage	24 (83)
Bladder spasms/pain	27 (93)
UTIs	6 (21)

POD-1.6. Table 3. Summary details of BotA treatments

No. of BotA treatments, mean (range)	3 (1–8)
No. of patients with ongoing BotA	17
Time interval of injections (%)	4 (14)
3–4 months	7 (24)
6 months	12 (41)
6–12 months	5 (17)
12 months	
BotA dose in positive responders (units)	200 U
Complications	0



POD-1.6. Figure 1. Number of patients with complaints of spasms, leakage, and UTIs pre- and post-BotA injections (black and light grey, respectively).

References

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