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### Title

PD22-02 A MULTICENTER ASSESSMENT OF STRICTURE LOCATION AND TYPE OF URETHROPLASTY ON ERECTILE FUNCTION

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## PD21-12 EFFICACY AND SAFETY OF A MIXED EXTRACT OF TRIGONELLA FOENUM-GRaecUM SEED AND LESPEDEZA CUNEATA IN THE TREATMENT OF TESTOSTERONE DEFICIENCY SYNDROME: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED CLINICAL TRIAL

Hyun Jun Park, Kyeong Soo Lee, Eun Kyoung Lee, Nam Cheol Park\*, Busan, Korea, Republic of

**INTRODUCTION AND OBJECTIVES:** Despite the increasing availability of effective conventional medical treatments, plant-derived and herbomineral remedies continue to be a popular alternative for men seeking to improve sexual function. The aim of this study was to investigate the efficacy and safety of a mixed extract of *Trigonella foenum-graecum* seed and *Lespedeza cuneata* (TFGL) for the treatment of testosterone deficiency syndrome (TDS).

**METHODS:** Patients were instructed to take a placebo or 200 mg TFGL capsule twice per day for 8 weeks. The primary efficacy variable was the change from baseline in the Aging Males' Symptoms scale (AMS), as well as levels of serum total and free testosterone. Secondary efficacy measurements included changes from baseline in the number of 'yes' answers on the Androgen Deficiency in the Aging Male (ADAM) questionnaire, levels of serum total cholesterol, high density lipoprotein cholesterol (HDL-C), low density lipoprotein cholesterol (LDL-C), triglyceride, all domain scores of the International Index of Erectile Function (IIEF), perceived stress scale-10 (PSS-10), as well as changes in body composition.

**RESULTS:** The TFGL group exhibited a significant improvement in the AMS scores at 8 weeks, total testosterone at 8 weeks, and free testosterone at 4 and 8 weeks. At 4 weeks, 25% of the TFGL group changed to negative in terms of ADAM scores and 34.1% of the TFGL group had negative scores at the end of the study. The TFGL group exhibited a significant improvement in total cholesterol, HDL-C, LDL-C, triglyceride, IIEF scores, and PSS-10 scores at 8 weeks.

**CONCLUSIONS:** The mixed extract of TFGL resulted in significant improvements in symptoms of TDS, as measured by the AMS, ADAM, PSS-10 and testosterone levels.

**Source of Funding:** none

**RESULTS:** 160 men were identified with a mean age of  $47 \pm 15.8$  years, and 30% of the cohort was African-American. Mean follow-up was 1 year ( $\pm 1.3$  years). All patients received preoperative antibiotic prophylaxis. Post-operatively, 97/160 (60.6%) patients received prophylactic antibiotics and 63/160 (39.4%) did not. At initial follow-up, patients who received antibiotics at discharge were routinely cultured prior to Foley catheter removal, while the non-antibiotic patients were only selectively cultured if symptomatic. Positive urine cultures (defined as the presence of any growth of bacteria/fungi) were noted in 36/160 (22.5%) patients. Of the 36 with positive cultures, 26 (72.2%) had received antibiotics at discharge, while 10 (27.8%) had not. Despite receiving antibiotics at discharge, 26/97 (26.8%) had a positive urine culture postop. Among the 14 men with symptomatic urinary tract infections, 9 had received antibiotics at time of discharge from surgery. Men who had a positive urine culture at initial follow-up were significantly more likely to develop disease recurrence (30.6% vs 15.3%,  $p = 0.04$ ), though culture was not routinely done in the non-antibiotic group, perhaps missing some positive cultures. There were 30/160 (20%) symptomatic urethral stricture recurrences. 17/30 men with stricture recurrence received antibiotics at discharge vs 13/30 men who did not (56.7% vs 43.3%,  $p=0.62$ ).

**CONCLUSIONS:** Despite receiving post-operative antibiotic prophylaxis after urethroplasty, 26.8% of men still have positive urine cultures. Furthermore, postoperative antibiotic use did not reduce symptomatic stricture recurrence rate. Routine antibiotic prescription after urethroplasty should be abandoned.

**Source of Funding:** None

## PD22-02 A MULTICENTER ASSESSMENT OF STRICTURE LOCATION AND TYPE OF URETHROPLASTY ON ERECTILE FUNCTION

Jonathan Wingate\*, Seattle, WA; Sean Elliott, Minneapolis, MN; Alex Vanni, Burlington, MA; Bradley Erickson, Iowa City, IA; Jeremy Myers, Salt Lake City, UT; Benjamin Breyer, San Francisco, CA; Nejd Alsikafi, Gurnee, IL; Jill Buckley, San Diego, CA; Bryan Voelzke, Seattle, WA

**INTRODUCTION AND OBJECTIVES:** Urethroplasty has been associated with erectile dysfunction (ED), likely due to the close proximity of the cavernous neurovascular bundle to the membranous and bulbar urethra. The relationship between erectile dysfunction and stricture location is under-reported. We hypothesize that more proximal stricture locations would be associated with erectile dysfunction.

**METHODS:** We performed a retrospective review of urethroplasty data from 8 participating centers in the Trauma and Urologic Reconstruction Network of Surgeons. We excluded men with prior pelvic radiation or pelvic fracture urethral injuries. Erectile function was measured using the Sexual Health Inventory for Men (SHIM) pre- and post-operatively. Stricture location was classified as membranous, proximal bulbar, or mid/distal bulbar. Type of urethroplasty was classified as anastomotic or other. A clinically significant change in erectile function was defined as a SHIM change of  $\geq$  or  $\leq 5$ .

**RESULTS:** There were 1137 patients who met inclusion criteria. Median age was 45.1 years (IQR 32.9-56.7). Median follow up time to first and last post-op visits were 3.7 (IQR 3.4-4.3) and 12.8 (IQR 6.3-24.1) months, respectively. The mean SHIM scores stratified by stricture location and type of repair are listed in Table 1. Patients had mild preoperative ED without a significant change in erectile function at time of last follow up visit. Of the 365 patients with more than one post-operative visit, 51 patients (14.0%) had a clinically significant worsening of erectile function while 26 patients (7.1%) had an improvement in erectile function.

**CONCLUSIONS:** Urethral stricture patients have mild baseline erectile dysfunction. Stricture location or anastomotic repairs are not associated with worsening erectile function. Further research is needed to identify those patients who will experience a clinically significant reduction in erectile function.

## Trauma/Reconstruction/Diversion: Urethral Reconstruction (including Stricture, Diverticulum) I

### Podium 22

Saturday, May 4, 2019

7:00 AM-9:00 AM

## PD22-01 ANTIBIOTICS AFTER URETHROPLASTY DO NOT REDUCE URETHRAL STRICTURE DISEASE RECURRENCE

Omotola Ashorobi\*, Joseph Fougousse, Kimberly Martin, John Patrick Selph, Birmingham, AL

**INTRODUCTION AND OBJECTIVES:** While it is common practice among surgeons to prescribe antibiotics after urethroplasty, it is unclear if this provides any benefit regarding patient options. Our objective was to evaluate infection and recurrence rates after single stage urethroplasty stratified by the use of postoperative antibiotics and to provide recommendations for best practices based on our experience with a diverse cohort.

**METHODS:** Retrospective chart review of men with a history of single stage urethroplasty from 2011 to 2017 based on hospital coding data. The procedures were performed by three surgeons at a single academic institution. Primary outcomes that were reviewed included: post-operative antibiotic prophylaxis, post-operative infection, and stricture recurrence requiring intervention of any type.

SHIM scores stratified by stricture location and type of urethroplasty.

Location	Anastomotic	n	Pre-Op	n	First Post-Op	n	Δ*	Last Post-Op	n	Δ*	p-value†
Membranous	Yes	64	17.5	52	16.7	44	-0.8	16.3	33	-1.2	0.64
Membranous	No	103	18.8	86	18.5	59	-0.3	19.1	49	0.3	0.79
Proximal Bulbar	Yes	238	20.6	176	17.8	80	-2.8	19.5	121	-1.1	0.13
Proximal Bulbar	No	348	20.0	234	20.1	144	0.1	19.7	228	-0.3	0.65
Mid/Distal Bulbar	Yes	158	19.9	117	20.8	64	0.9	20.4	75	0.5	0.57
Mid/Distal Bulbar	No	226	18.6	145	18.5	91	-0.1	19.4	128	0.8	0.34

\*Change from Pre-Op  
†P-value between Pre-Op and last Post-Op visit.

Source of Funding: None

**PD22-03  
POST-OPERATIVE RETROGRADE URETHROGRAM FINDINGS  
AND URETHRAL STRICTURE RECURRENCE**

Madeline Cancian, Atlanta, GA; Eric Jung\*, Kennon Miller, Providence, RI

**INTRODUCTION AND OBJECTIVES:** Retrograde urethrograms (RUG) are utilized 2-3 weeks after urethroplasty to help guide management of indwelling urethral catheters. To our knowledge, there is no published data to guide RUG interpretation. Our goal was to classify post-operative RUG findings and determine if they predict recurrence of urethral strictures.

**METHODS:** All available post-urethroplasty RUGs between 4/1/2005 to 6/1/2016 were reviewed by one author (KSM). Results were classified into four categories: normal, contour irregularity (CI), contained extravasation (CE) and frank extravasation (FE) (Figure 1). Stricture recurrence was defined as symptoms with inability to pass a 16 Fr flexible cystoscope or evidence of stricture on subsequent RUG. Statistical analysis was completed using SAS.

**RESULTS:** 172 patients were included. Median follow up was 24 months [range 1-130 months]. Compared to normal, there was an increased odds ratio of developing re stricture for contour irregularity of 3.4, contained extravasation of 1.3 and frank extravasation of 5.2 [cox proportional hazard regression, p = 0.048]. Overall, length of stricture had no association with RUG findings (p=0.30), however, each 1 cm increase in stricture length conferred a 16% increased odds of developing a recurrence [p=0.01]. The groups with the highest re-stricture rates, contour irregularity and frank extravasation, had a higher mean stricture length than the other two groups (6.1 cm & 5.4 cm vs 2.4 cm & 2.6 cm) (Figure 2). There was no association between BMI, age, or smoking status with subsequent urethral stricture recurrence.

**CONCLUSIONS:** Patients with an abnormal RUG had a higher odds ratio of stricture recurrence. We suspect the increased odds of developing a re-stricture in the contour irregularity group was related to the longer mean stricture length. Due to the similar stricture rates in the contained extravasation and normal RUG groups, we would not recommend prolonged catheterization except it patients with frank extravasation.

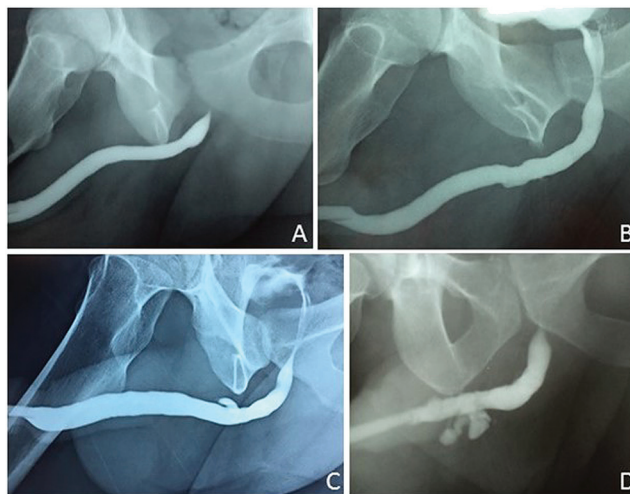


Figure 1: Classification of post-operative RUG findings  
A) Normal B) Contour Irregularity C) Contained Extravasation D) Frank Extravasation

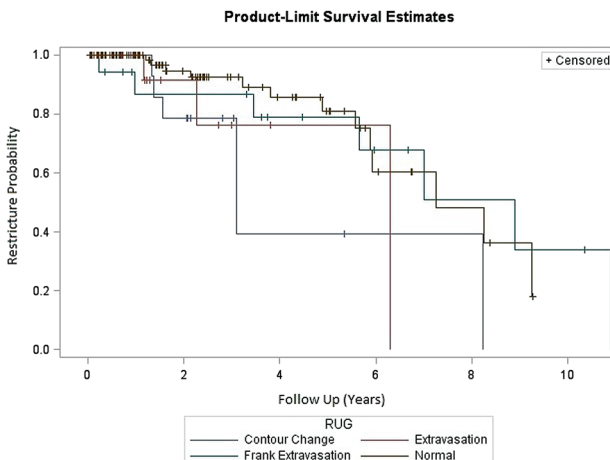


Figure 2: Cox proportional hazard regression demonstrating probability of re-stricture based on post operative RUG findings, p = 0.048

Source of Funding: None

**PD22-04  
AUGMENTATION URETHRAL RECONSTRUCTION USING  
TISSUE-ENGINEERED ORAL MUCOSA GRAFT MUKOCELL®**

Leonidas Karapanos\*, Vahudin Zugor, Ilgar Akbarov, Caroline Eich, Axel Heidenreich, Cologne, Germany

**INTRODUCTION AND OBJECTIVES:** One-stage augmentation urethral reconstruction with buccal mucosa is the method of choice in recurrent urethral strictures and achieves good results up to 75-85% with long-term follow up. Complications of harvesting buccal mucosa are swelling and scarring, injuries to the salivary gland orifices, and problems with the intake of food and restriction of the opening of the mouth. We examined the feasibility of tissue-engineered oral mucosa grafting in urethral reconstruction.

**METHODS:** Between 05/2016 and 10/2018, a total of 65 patients with strictures of the anterior urethra underwent an augmentation urethroplasty with MukoCell® (by UroTiss Europe GmbH). Mean patient age was 59 years (range 20 to 87) with mean 2,6 previous endoscopic