Moderated Poster Session VI: Infertility/Impotence, General Urology
Friday, Nov 1, 2013
3:30 PM - 5:00 PM

P76
The First Experience with a Transurethral Suprapubic Endocystostomy (T-SPeC®) as a Novel Suprapubic Catheter Insertion Device

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Background: The conventional percutaneous suprapubic cystostomy under direct cystoscopy vision or ultrasound guidance remains a blind procedure associated with high rate of complications (15-20%) and even mortality (0.5-1.8%). In order to define a precise localization of bladder and decrease morbidity and mortality of procedure, a novel new surgical system T-SPeC® (Swan Valley Medical, Bigfork, MT) was developed. The device has been approved for use worldwide (Europe, Canada, Australia) and just recently in the United States. The T-SPeC® Surgical System is available in two models, T7 and T14, allowing large morbidly obese patients to be treated. We present the results of our first experience with this system used for introducing a suprapubic catheter (18 Fr) via a retrourethral approach, with a 15 Fr. incision.

Methods: Initially we evaluated a feasibility of the accurate insertion of suprapubic tube into the bladder using the T-SPeC® technique on 14 human cadavers. Male and female cadavers were used with a BMI range of 28 to 43. In all cases, a precise suprapubic catheter placement was achieved. Following this, 22 patients with a need for a suprapubic catheter placement were selected. The T-SPeC® device was used under general anesthesia to place a suprapubic catheter.

Results: In cadaver study, there was no injury to adjacent organs found at autopsy after procedure was completed. In the live cases with the T-SPeC Surgical System, all patients had successful suprapubic tube placement. No complications were encountered. The average surgical time of the procedures was 9.4 minutes, with a range of 7.6-13.1 minutes. In all cadaver and live clinical cases, accurate catheter placement into bladder was achieved. The estimated blood loss was negligible. All patients were discharged within hours of the procedure.

Conclusions: The novel T-SPeC Surgical System facilitates a faster, safer, and more precise suprapubic catheter placement than techniques currently available. This device is a useful addition to the urologic armamentarium for patients requiring a suprapubic tube.

P77
The Utility of the CT Scan for Measurement of Prostate Volumes: A Comparison to Gross Specimen and TRUS, Triple Concordance Study

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Background: To date there are only two studies that compare TRUS prostate volume that of CT volume, generally concluding that CT volumes correlate well to those of TRUS. While these studies have traditionally supported the diagnostic precision of both TRUS and CT, they fail to evaluate the accuracy of these modalities in relation to gross specimen volume. In order for CT to be accepted as a viable option for prostate size measurements, our study evaluates both the diagnostic precision of CT in comparison to TRUS as well as its accuracy in relation to surgical specimen volumes.

Methods: Using departmental surgical logs, we compiled an electronic list of all patients who underwent a radical prostatectomy between January 2008 and December 2012. Inclusion criteria included patients who underwent preoperative CT and TRUS studies as well as postoperative pathologic prostate specimen measurements. Volumes from all 3 studies were generated utilizing ellipsoid calculations based on a three dimensions. TRUS data was obtained from the study report, CT data was obtained by measurements of a blinded radiologist, and gross specimen data were obtained from the postoperative pathologic report.

Results: The measured preoperative TRUS and CT volumes were independently evaluated in comparison to the gross specimen volume obtained from the surgical prostate specimen. Each value was then evaluated for diagnostic accuracy utilizing the parameters of mean, median, absolute percent difference. TRUS volumes ranged from 19 to 49 cc with median volume of 30.0 cc and a mean of 29.8 cc.
CT volumes ranged from 16.1 to 41.7 cc with a median volume of 27.7 cc and a mean of 29.5cc. Gross specimens ranged from 22.1 to 44.4 cc. In comparing the measured values it was determined that TRUS measurements varied by an average of 8.2 cc while CT measurements varied by 6.8 cc representing an absolute percent difference from the gross volume of 26% and 21%, respectively.

Conclusions: This triple concordance study has shown that CT is equivalent to TRUS in estimating prostate volume. This is an important tool for urologists in this era of inflated medical expenses to estimate prostate volume to help surgical planning (for example TURP) if a CT scan is already in the medical record for any other reason no need for addition TRUS.

P78
Psychosocial Predictors of Quality of Life and Dyadic Adjustment in Men with Peyronie's Disease

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Background: Peyronie's Disease (PD) is clinically recognized as being highly distressing for patients. It is assumed that PD has a negative impact on quality of life and relationship satisfaction. Unfortunately, many decisions for surgery use sexual interference as the marker for surgical intervention, without taking into account psychosocial variables. The aim of the present study was to determine the impact of PD, and assess what predicts quality of life and relationship outcomes.

Methods: A preliminary analysis of 48 men with PD was conducted. Men were sent a questionnaire package inquiring about their quality of life, relationship satisfaction, PD symptoms, shame, body image, sexual function, catastrophizing, and partner responses to PD. Multiple regression analyses were conducted in order to determine the correlates and predictors of quality of life and dyadic adjustment.

Results: As a group, quality of life was not below healthy norms. Less shame, less concern with appearance and less sexual interference were associated with higher quality of life. Less shame, and more solicitous and less negative partner responses were associated with higher levels of dyadic adjustment. However, body image was the only significant predictor of

quality of life, not sexual interference. Shame and partner responses were the only significant predictors of relationship satisfaction.
Conclusions: Although PD appears to be distressing, many men appear to cope well nonetheless. In men with lower quality of life, psychosocial factors, such as body image, shame, and partner responses appear to be the best predictors of lower quality of life and relationship satisfaction. These factors should be assessed in men with PD, as appropriate referral for individual or couple therapy may be appropriate. These should also be assessed before and after surgical treatment. Finally, over time, more awareness about PD may help reduce the shame that men with PD experience.

P79

Prevalence of Male Hypogonadism in Couples Presenting to a Reproductive Endocrinology Infertility Clinic

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Background: Fifteen percent of couples in the United States are infertile and male factor infertility is the sole cause in 20% of infertile couples. Most couples with refractory infertility are evaluated by a reproductive endocrinologist (RE). Male infertility may be due to reversible causes such as hypogonadism. Early hypogonadism may not be associated with the clinical prodrome associated with hypogonadism (decreased sexual function, energy and libido. The reported prevalence of hypogonadism in men younger than 50 years old is <10%. As the endocrinopathy of hypogonadism may result in inexorable worsening symptomatology, early recognition is crucial. We sought to determine the prevalence of male hypogonadism in infertile couples presenting to RE.
Methods: Beginning 2011, male partners of women referred to an academic RE were routinely evaluated. We retrospectively reviewed 191 consecutive couples. Male partners' demographic, hormonal and SA variables on initial presentation to RE were recorded. Student T-test was used to compare groups.
Results: 171/191 (90%) with concomitant SA and hormonal profile were included. Mean male and female age at presentation was 37±6 and 33±4 respectively. Mean BMI, total T, T/E ratio and total motile sperm count was 30±6, 368±157ng/dL, 18±13 and 75±105 million. Seventy one men (42%) had a T<300 ng/dL with 42 (25%) demonstrating T<250 ng/dL. Twenty three percent of patients had a sperm concentration <15x106/mL. There was no difference in T levels, between men with concentrations above or below 15 million/mL.
Conclusion: Male hypogonadism is common in couples referred for assisted reproductive therapy with 25% being profoundly hypogonadal (T<250 ng/dL). Thirty eight percent of men with normal sperm concentration and sperm count are hypogonadal. Hereby, a normal sperm count on SA does not eliminate the need to assess for underlying male hypogonadism. Assessment for male hypogonadism should be a crucial part of the evaluation of the infertile male. Appropriate identification, evaluation and treatment in this group have the potential to improve not only natural fertility but overall future male health.

P80

Repetative Percutaneous Epididymal Sperm Aspirations (PESAs) in a Rat Model Resulted in Immediate Asthenospermia and Significant Inflammatory Changes

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Background: In azoospermia, choosing a sperm retrieval method for intracytoplasmic sperm injection (ICSI) depends primarily on the preference and expertise of both the urologist and reproductive endocrinologist. There is insufficient evidence to suggest which method of sperm harvesting (PESA verses testis biopsy/aspiration) optimizes ICSI outcomes. Generally, PESA is attempted first. Not uncommonly, multiple PESA's are necessary due to ICSI failure or, the desire for additional children. Since there is no study stratifying epididymal damage or effect on sperm parameters, we propose a rat model to prospectively evaluate PESA-related changes. This study aims to provide clinicians with an understanding of sperm parameter and histological changes resulting from repetitive PESA procedures.

Table 1. P80. Repetitive percutaneous epididymal sperm aspirations

	G1	G2	G3
Epididymal granulomas	70%	100%	80%
Controls	0%	0%	0%
Vas segment concentration >0.5 M/cc	100%	22%	20%
Control	100%	56%	100%
Vas segment motility >10%	90%	22%	20%
Control	100%	100%	100%

Methods: A cohort of 30 male Winstar rats of reproductive age (68-73 days) were divided into three groups of 10 (G1-3). After quarantine, all three groups underwent a left epididymal head PESA using a 25-3/8 gauge needle. The untouched right epididymis acted as the control. At 14 day intervals, G2 and G3 underwent a second and third PESA respectively. 14 days after the final PESA, both epdidymides and a 1-centimeter segment of both vas deferens were harvested for histological and coulter counter analyses. Statistics: Contingency analysis.
Results: PESA resulted in significant granuloma formation .A drop in concentration and motility was noted after G1, but essentially unchanged between G2-3.
Conclusions: In a prospective rat model, PESA causes significant epididymal inflammatory changes and a reduction in both sperm concentration and motility. The number of PESA's did not correlate with severity of inflammation or lost motility.

P81

Nearly all Surveyed Reproductive Urologists Feel a Prospective Variocelectomy Trial is Important and Worthwhile

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Background: A federally sponsored prospective randomized trial involving varicocele repair recently failed due to insufficient patient recruitment. Upon critical review of this trial, the hypothesis that limited recruitment due to a lack of urologists' interest was tested. For this reason, we surveyed United States of America (USA) members of the Society of Male Reproductive Urologist (SMRU) and Society of Reproductive Surgeons (SRS) to determine if a NIH funded varicocelectomy trial for the treatment of male infertility would be of significance to the field.
Methods: A total of 100 USA SMRU and SRS members were surveyed (using a 10-question Survey Monkey survey) to determine if a prospective, randomized varicocelectomy trial was warranted. Support of the trial was considered to be a majority or super-majority, if either 51% or 66% of respondents affirmed importance.
Results: A total of 48 urologists responded (48% response rate). Of the respondents 96% felt that a prospective varicocelectomy trial was important and should be implemented. All respondents were familiar with the AUA/ASRM varicocelectomy guidelines and the majority (83%) performs a microscopic inguinal varicocelectomy most of the time. None of the respondents would operate on subclinical varicoceles. When given a scenario of a patient with "normal" semen analysis, 56% would still offer a varicocelectomy.
Conclusion: We negated the hypothesis that there was a lack of urology support for a prospective varicocelectomy trial. There is broad (supermajority) support for a prospective randomized controlled varicocelectomy trial among USA reproductive urologists. Nearly all respondents would recruit patients from their practices for such a trial. These respondents were aware of the AUA/ASRM guidelines, typically performed microscopic repairs, and did not operate on subclinical varicoceles.

P82

Pilot Study on the Effects of Implantable Testosterone Pellets on Penile Oxygenation in Clinically Hypogonadal Men

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Background: Erectile dysfunction (ED) has been associated with penile atrophy, smooth muscle apoptosis and increased interstitial collagen deposition in animal models and in the human. The corpora in the flaccid state have been demonstrated to be in a relative hypoxic state that becomes normoxic in the erectile state. The observed pathologic changes are postulated to occur in the setting of the chronic hypoxic state associated with ED. It has been demonstrated that men with ED have significantly lower resting corporal oxygen saturation then men without ED and that men with significant hypogonadism have fewer nocturnal erections. The association between hypogonadism and corporal hypoxia has not been demonstrated.

Methods: Men were prospectively recruited from an academic andrology practice. Inclusion criteria were symptoms of hypogonadism and a baseline testosterone of less than 250 ng/dL. ED was not a prerequisite. Baseline studies included a hormonal panel, penile oximetry, ADAM, IIEF, and erection hardness score (EHS). All of these studies were repeated at 6 and 12 weeks. Penile oximetry was performed with the Vioptix ODISsey tissue oximeter at 4 sites (ear, thigh, corpora and glans).

Results: Nineteen men were recruited. Thirteen men completed the study (Table 1).

Conclusion: This small, pilot study demonstrates the clinical and physiologic benefit of testosterone supplementation. When compared to previous studies looking at penile oximetry, this cohort has the lowest baseline corporal value. This pilot study does provide a link between hypogonadism and corporal hypoxemia although the result was not recoverable over the short duration. While larger and longer duration studies are needed, this study provides a validation for testosterone replacement for penile and general health along with the symptoms of hypogonadism.

Table 1. P82

Objective data	Baseline	6 weeks	12 weeks	*p* value
Testosterone	165	600	384	<0.001
ADAM	31.1	34.5	34.7	0.007
IIEF	37.8	52.2	48.8	0.037
EHS	2.6	3.2	3.1	0.012
Oximetry				
Ear	70.9	73.4	74.1	NS
Thigh	53.5	56.8	54.6	NS
Corpora	27.5	30.3	25.2	NS
Glans	60.1	65.0	65.4	NS

ADAM: androgen decline in the aging male; IIEF: International Index of Erectile Function; EHS: erection hardness score.

P83

Robotic Microsurgical Vasectomy Reversal: Initial Experience and Short Term Outcomes from a Single Academic Centre

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Background: The Robotic platform has emerged as a feasible alternative to the traditional microsurgical vasectomy reversal (MSVR) with the operating microscope. Several small series and one larger series at a private institution have reported their experiences and outcomes. Potential advantages of the robotic platform are enhanced visualization, increased surgeon autonomy (with the 4th arm), lack of tremor, and improved ergonomics. We report our initial experience and outcomes

Methods: We retrospectively reviewed surgical outcomes for a single surgeon at an academic centre from 2011 to 2013. All patients that underwent surgery were included in the study. Residents and fellows were involved in all procedures. All patients underwent vasectomy reversal with the DaVinci robotic platform with the dual console. Demographic information, operative times, and outcomes were recorded.

Results: Results are shown in Table 1. 15 patients had their follow-up sperm check. 73% of all cases had a positive sperm check and 85% of vasectomy reversals without a prior reversal attempt had a positive sperm check.

Conclusions: RMSVR is safe and effective with good initial success rates at short term follow up. In addition it provided stereotactic vision, improved ergonomics, and a unique more controlled training environment for residents and fellows to advance microsurgical and robotic skills.

Table 1. Robotic microsurgical vasectomy reversal

Demographics	No.	Mean (SD)	Range
Age	40	6.7	33-53
BMI	31.5	6.7	25.5-49.0
Years since vasectomy	8.4	5.5	3.0-22

Surgical outcomes			
Procedure performed	**Bilateral Vasovaso**	**Vasovaso and vasoepi**	**Bilateral vasoepi**
Number (% total)	6 (40)	6 (40)	2 (13)
Total no.	15 (1 unilateral vasoepi)		
Complications	**No.**	**Percent of total**	
Hematoma	0	0	
Persistent pain	0	0	
Infection	0	0	
High riding/fixed testis	1	7	
Previous scrotal surgery	4	27	
Postoperative semen analysis			
No. with positive sperm: All cases (n)	11	73.3	
No. with positive sperm: Vasectomy reversal (first attempt) (n)	11	85	
Mean no. days since surgery to sperm check (SD)	92 (99)		

BMI: body mass index; SD: standard deviation.

P84

Anterograde and Retrograde Dilation of Corpora Accessed Via Second Ventral Incision is Required for Placement of Inflatable Penile Prosthesis Following T Shunt/Corporal Snake Management of Refractory Priapism

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Background: Lue and Burnett have separately redefined management of refractory priapism by introducing the distal T-shunt/corporal snake maneuver. Accessing the corpora cavernosa via the glans, followed by instrumental dilation to the proximal corpora (entire corporal length) resolves priapism, and allows for potential erectile function return even after 24-72 hours of priapism. For patients not treated with immediate penile prosthesis insertion after resolution of the priapism, the likelihood remains that definitive management will include inflatable penile prosthesis (IPP) performed in a delayed fashion. We present cumulative experience of IPP placement in post-T shunt patients, specifically the need for adjunct surgical maneuvers secondary to distal corporal fibrosis.

Methods: Seven patients post T-shunt required IPP placement due to refractory erectile dysfunction. Colour duplex ultrasound was performed prior to IPP by the operating surgeon in all cases.

Results: IPP surgery utilizing penoscrotal access, at approximately 3 months post T-shunt, was complicated in all cases by dense distal fibrosis. A second small (<3 cm) distal ventral incision allowed for direct dissection into the corpora, Metzenbaum excision of non-dilatable scar tissue, and retrograde and anterograde dilation using the bladed Uramix instrument to establish continuum. The rate of second ventral corporotomy incision for non-priapism patients undergoing IPP (approximately 90-100 per annum), but including Peyronie's disease in the practice is 6.6%. There were no device infections or second procedures, EHS scores were 4 at six months, and IIEF-5 increased over 16 patients (mean) from baseline. No erosions or early mechanical failures were noted in either group.

Conclusions: Minimizing iatrogenic injuries, including urethral perforation, in these complex patients requires a second ventral distal incision allowing bilateral access to the corpora, and direct excision incision/dilation, requiring specialty dilators. Little time is added to surgery, and no additional morbidity was noted. Although distal tunica is compromised at distal T-shunt/corporal snake maneuver priapism management, no erosion was noted.

P85

Inflatable Penile Prosthesis Durability Does Not Appear to be Negatively Impacted by Peyronie's Disease Erectile Dysfunction Primary Etiology Based on Revision-free Survival of Inflatable Penile Prostheses in 24914 Men

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Background: Primary erectile dysfunction etiology may impact 3-piece inflatable penile prosthesis (IPP) device survival. Recently published reports suggest an increased rate of device-related complications for IPPs when used for combined treatment of erectile dysfunction (ED) and Peyronie's disease (PD), although they are limited in part by small cohorts, are single institution, and may not accurately reflect current surgical practice or devices.

Methods: A large database of patient information form (PIF) records for patients who had AMS 700 IPPs implanted between May 1, 2001 and December 31, 2008 was retrospectively reviewed. Patients with PD as single recorded etiology of ED vs. patients without PD were compared (n=24914). Kaplan-Meier life table survival analysis was used to estimate device survival from revisions for any reason, and due to infection, erosion, mechanical malfunction, fluid loss, and patient dissatisfaction. Device specific (CX vs. LGX/Ultrex cylinders) data was evaluated within the subgroup of men with PD. A p-value <0.05 was considered statistically significant.

Results: No appreciable differences in device survival from revision for any reason were demonstrated for 1,882 men with PD vs. 23,032 with other recorded etiologies, including diabetes, post- prostatectomy, or others (p=0.3529). No significant differences were demonstrated in revision-free survival for any individual reason examined between men with PD and those without. Survival from revision for any reason in men with PD at up to 7.7 years of follow-up was 90.96% for CX implants, vs. 93.36% for LGX/Ultrex implants (p=0.2154). Revisions were reported at any time throughout follow-up for 113 (6.97%) of 1,621 CX cylinders, and for 5 (3.31%) of 151 LGX/Ultrex cylinders within the PD subgroup.

Conclusions: This series of PD patients treated with modern IPPs, the largest reported to date, demonstrates that survival from device revision over more than 7 years post-implantation exceeds 90% and is not significantly different than in patients with non-PD primary causes of ED. Confirmatory data, including data for patients undergoing curvature correction procedures at the time of implantation, is awaited from the multi-institutional multi-year PROPPER study (Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration).

P86

Etiology and erectile treatments prior to surgery: Results for 352 patients from the Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration (PROPPER)

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Background: PROPPER is designed to document outcomes for AMS 700 and AMS Ambicor inflatable penile prostheses (IPPs), and Spectra penile implants. Validated patient questionnaires and electronic data collection are used to record baseline patient characteristics and surgical implantation details, and to prospectively measure response to treatment annually to five years post-implantation including durability, complications, and effectiveness (functional, satisfaction and quality of life) outcomes. ED etiology and attempted pre-surgery erectile treatments are presented to better understand the patients' pathway to surgical management.

Methods: The PROPPER registry was initiated in June, 2011 and through November 7, 2012, 352 patients were implanted with AMS 700 series IPPs at a total of 9 study sites. Analyses based on primary ED etiologies and duration of ED and treatments prior to implantation were performed.

Results: The four most common primary ED etiologies were post-radical prostatectomy (30.7%), cardiovascular disease (25.6%), diabetes (20.5%), and Peyronie's disease (8.8%). Mean reported duration of ED for these patients was 5.7, 7.9, 8.0, and 3.3 years, respectively. Fourteen percent of patients had a previous penile implant. In the majority of cases, multiple ED therapies had been attempted prior to implant surgery. The use of combination therapies prior to surgery approached 10% across these four patient groups, likely reflecting changes in the understanding of underlying pathophysiologies and contemporary practice.

Conclusions: Analyses support IPPs as definitive treatment for ED of varying etiologies. In contemporary patient goal-oriented ED practice, pre-surgery treatment differences may reflect duration of ED, underlying root causes (neural, endothelial, smooth muscle, tunical disease or combination) or patient preference.

P87

AMS 700 Conceal Reservoir submuscular placement: results for 50 patients from the Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration (PROPPER)

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Background: Data from the PROPPER study (Prospective Registry of Outcomes with Penile Prosthesis for Erectile Restoration) were examined to determine surgical implantation use patterns for the Conceal™ Low Profile reservoir. Given the clinical interest for ectopic reservoir placement in patients undergoing three-piece inflatable penile prosthesis (IPP) surgery, initial submuscular placement data were examined.

Methods: Multicentre clinical data were reviewed. Surgical implantation locations were recorded and reviewed for initial AMS 700 implants. Patient characteristics and complications reported were reviewed for the first 50 study patients consecutively implanted with Conceal reservoirs placed sub-muscularly, all with a minimum of 2 months of post-implant follow-up.

Results: The study population consisted of 352 patients implanted with an AMS 700 IPP across 9 study sites (standard spherical or Conceal placement n=275, submuscular Conceal n=57, submuscular spherical n=14, other n=6). Forty-eight percent of the first 50 implants with sub-muscular Conceal placement were in men post-radical prostatectomy. After a mean of 14 months (median 15 months, range 8.0-20.3 months) post-surgery, complications were reported in 4 submuscular Conceal patients consisting of 2 reservoir herniations, a mechanical complication of a concurrently implanted artificial urinary sphincter, and device fluid loss, all within 6 weeks of implantation. There were no bladder, bowel or blood vessel complications. Results were comparable to historical outcomes in men with standard reservoir placement.

Conclusions: Conceal reservoir placement in the submuscular location in post-radical prostatectomy patients appears safe, and further study continues on this option for 3 piece IPP placement. Submuscular placement avoids potential injury to bladder, bowel and blood vessels, and may be especially useful in patients with previous pelvic surgery.

P88

Prospective Randomized Evaluation Of Razor Types For Preoperative Hair Removal On The Male External Genitalia

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Background: Grober et al. recently published a prospective randomized trial suggesting that preoperative hair removal on the scrotal skin using a razor results in less skin trauma and improved overall shave quality with no apparent increased risk of surgical site infections (J Sex Med 2013 Feb;10(2):589-94). Based on these findings, institutional support was obtained for use of razors (versus clippers) for preoperative preparation of the male genitalia for Peyronie's repair and penile prosthesis surgeries. Two single blade razor types were available - serrated (SER) and smooth (SM). Initial observations suggested use of SER resulted in greater degrees of skin trauma, therefore we proceeded to objectively evaluate shave quality and the degree of skin trauma.

Methods: Patients undergoing Peyronie's or penile implant surgery were randomized to hair removal using SM (left blade) or SER (right) (Fig. 1). Grober's experimental design was followed. Primary outcomes were blinded global ratings of preoperative hair removal completeness within the surgical field and degree of skin trauma following hair removal. Immediately following hair removal, a standardized digital photograph was taken of the male genitalia. All digital photos were evaluated in a blinded fashion. Skin trauma was scored on a five point scale, and the incidence of SSI was monitored for three months after surgery.

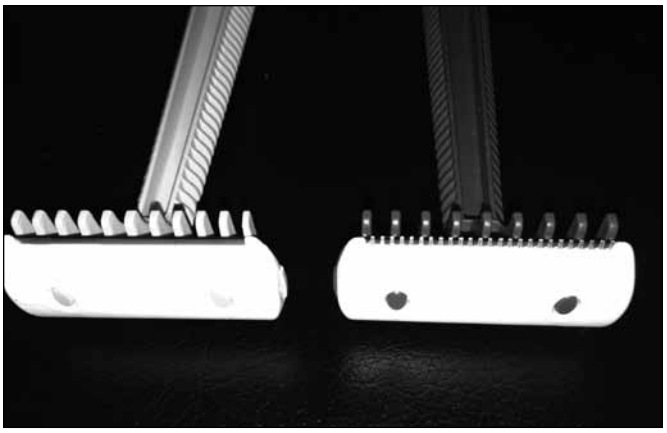

Fig. 1. P88.

Results: Sixty consecutive patients (n=30 each group) were evaluated. SER resulted in significantly more skin trauma ($p<0.05$), and there were 3 SSI vs. zero for SM.

Conclusions: Given the physical characteristics of the scrotum, and previously published findings, evidence-based surgical site preparation of the scrotum for surgery includes the use of a razor for hair removal. It appears to be in the patient's best interest to utilize a straight-edge single razor, in comparison to a single serrated blade. Intra-institutional quality control studies such as these benefit patient care as they influence practice based on accurate data accrual.

P89

Robotic Microsurgical Varicocele Repair: Initial Experience and Surgical Outcomes From a Single Academic Center

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Background: The Robotic platform has emerged as a feasible alternative to the traditional microsurgical subinguinal varicocelectomy (MSV) with the operating microscope. Several small series and one larger one at a private institution have reported comparable outcomes to the operating microscope. Potential advantages of the robotic platform are enhanced visualization, increased surgeon autonomy (with the 4th arm), lack of tremor, and improved ergonomics. We report our initial experience and outcomes for robotic microsurgical varicocelectomy (RMSV).

Methods: We retrospectively reviewed surgical outcomes for a single surgeon at an academic centre from 2011 to 2012. All patients that underwent surgery were included in the study. Residents and fellows were involved in all procedures. Patients either underwent repair with the operating microscope or the DaVinci robotic platform with a dual console. Demographic information, operative times, and outcomes at the initial postoperative visit were recorded. Statistical analysis was performed with a one-way ANOVA test.

Results: Results are shown in Table 1. There was no significant difference in operative times between the 2 groups. A small learning curve was seen.

Conclusions: RMSV is safe and effective with no significant increase in operative times or complications. In addition it provided improved visualization, ergonomics, and a unique more controlled training environment for residents and fellows to advance microsurgical and robotic skills.

Table 1. P89. Robotic microsurgical vasectomy reversal

Demographics			
	No.	**Mean (SD)**	**Range**
Age	40	6.7	33-53
BMI	31.5	6.7	25.5-49.0
Years since vasectomy	8.4	5.5	3.0-22
Surgical outcomes			
Procedure performed	**Bilateral vasovaso**	**Vasovaso and vasoepi**	**Bilateral vasoepi**
No. (% Total)	6 (40)	6 (40)	2 (13)
Total no.	15 (1 unilateral vasoepi)		
Complications	**No.**	**Percent of total**	
Hematoma	0	0	
Persistant pain	0	0	
Infection	0	0	
High riding/fixed testis	1	7	
Previous scrotal surgery	4	27	
Postoperative semen analysis			
No. with positive sperm: All cases (n)	11	73.3	
No. with positive sperm: Vasectomy reversal (1st attempt) (n)	11	85	
Mean no. days since surgery to sperm check (SD)		92 (99)	

BMI: body mass index; SD: standard deviation.

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Prospective Evaluation of Glove Perforation Supports Double Gloving for Penile Prosthesis Surgeries

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Background: Device infection in the setting of inflatable penile prosthesis implantation (IPP) is a catastrophic complication, requiring secondary surgeries, conferring morbidity to the patient, and adding significant financial burden to the health care system. Gloves are a barrier to potential surgical site infection, as well as offering protection to the surgeon. Double gloving has not undergone rigorous prospective evaluation in this surgical setting. Fry et al (J Am Coll Surg. 2010 Mar;210(3):325-30) did not demonstrate a substantial impact on manual dexterity or tactile sensitivity when compared with no gloves or single-gloving. We evaluated 50 consecutive cases for inner and outer glove perforation, resulting in change-of-practice behavior.

Methods: For 50 consecutive IPP cases over a 6 month period in 2012, frequency of significant glove perforation for the primary surgeon and first assistant (resident or fellow) gloves was assessed using the hydrosufflation technique. If perforation was suspected intraoperatively, gloves were removed, and all sets utilized were evaluated.

Results: 51 primary surgeon (PS) and 54 assistant sets (AS) of gloves were evaluable. All inner and outer sets comprised the study cohort. Identified outer glove perforations requiring intraoperative glove change occurred in 0/1 PS and 2/4 AS sets removed during surgery, while inner gloves remained intact. End of surgery evaluation yielded outer perforations in 1 PS and 3 AS gloves, with inner glove perforation in 1 AS instance. All patients are enrolled in a prospective registry and have been followed to one year with no devices removed due to infection to date (*www.ClinicalTrials.gov Identifier: NCT01383018)*.

Conclusions: Outer glove perforation rate was 2 and 10% for PS and AS, while inner perforation occurred in one AS case. Glove perforation is not accurately identified intraoperatively. Rates compared favorably to previous open urological procedure reports (Feng et al.Can J Urol. 2011 Apr;18(2):5615-8). Given these findings, double gloving should be standard operating procedure for all IPP procedures.