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MP-09.01
Erectile Dysfunction, Hypoandrogenism and Hypogonadal Symptoms are Frequently Found in Men with Infertility

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Introduction and Objectives: We have previously shown that hypogonadal symptoms and erectile dysfunction (ED) are common in the population of infertile men (O'Brien et. al, J Urol 2005). We sought to examine these findings in a largermographic and biochemical predictors of ED.

Methods: We prospectively collected demographic data and administered the Androgen Deficiency in the Aging Male (ADAM) and Sexual Health Inventory for Men (SHIM) questionnaires to men presenting for evaluation of infertility between July 1995 and April 2010. As part of routine work up, most infertile men underwent serum hormone evaluation for total testosterone (T), estradiol (E), luteinizing hormone (LH) and follicle-stimulating hormone (FSH). In our analysis of 2783 men, we excluded all those under the age of 18 and those with pre-existing significant ED (penile prosthesis, post-radical prostatectomy). We included only those that had completed the SHIM questionnaire in entirety. All other baseline risk factors were measured, including age, smoking, marijuana use and relevant co-morbidities (diabetes mellitus, hypertension and dyslipidemia) and use of medications which may affect ED (anti-hypertensives, anti-depressants, anti-androgens and anti-histamines). We defined cases (those with ED) as men having a SHIM score <22. Logistic regression modeling was conducted to determine the significance of hormonal markers in predicting ED.

Results: A total of 2466 men of mean age 36 (range 18-71) completed the questionnaires. The prevalence of ED and those reporting low libido (question #1 of ADAM) was 28.4% and 23.9%, respectively. Hypoandrogenism (total testosterone <10 nMol/L) was found in 31.8% of the men. In our baseline model, age (OR 1.03; 95% CI: 1.02-1.05) and the diagnosis of diabetes mellitus (OR 4.38; 95% CI: 2.56-7.51) were significant predictors of ED. While controlling for self reported low libido, T (OR 0.96; 95% CI: 0.90-1.02), LH (OR 1.11; 95% CI: 0.94-1.30), and FSH (OR 1.0; 95% CI: 0.93-1.07) did not significantly predict ED.

Conclusions: In this relatively young group of infertile men both ED and hypoandrogenism were quite prevalent. Interestingly, ED was unrelated to hormone levels. This data shows that ED in most of these younger infertile men is unrelated to testicular or hypothalamic-pituitary dysfunction.

MP-09.02
Anti-Sperm Antibodies Are Not Associated with Pregnancy Failure after Assisted Reproductive Techniques: Systematic Review and Meta-Analysis

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Introduction: Several studies have examined the relationship between direct anti-sperm antibody (ASA) levels in semen and pregnancy rate after advanced assisted reproductive technologies (ARTs) but the results have been inconsistent. The aim of our study was to further evaluate the relationship between ASA and pregnancy after IVF and ICSI by systematic review and meta-analysis.

Materials and Methods: We conducted a systematic Medline search of all relevant full papers on direct semen ASA and pregnancy at IVF and ICSI. Three investigators independently reviewed the papers, followed by group discussion to choose the included papers. Meta-analysis was done to get an odds ratio for the effect of ASA on pregnancy using IVF or ICSI.

Results: 16 valid studies (10 IVF and 6 ICSI) were identified and analyzed. The study characteristics (including the ASA cut-off values) were heterogeneous. Our meta-analysis revealed that the combined odds ratio for achieving a pregnancy using IVF and ICSI in the presence of positive semen ASA was 1.22 (95% CI: 0.83, 1.77) and 1.00 (95% CI: 0.72, 1.38), respectively. The overall (IVF + ICSI) combined OR was 1.08 (95% CI: 0.85, 1.38).

Conclusion: This systematic review and meta-analysis indicates that direct semen anti-sperm antibodies are not related to pregnancy rates at IVF and ICSI. The data suggest that semen ASA testing prior to IVF and/or ICSI is of limited value. However, additional studies are needed to verify these findings because the papers included in this meta-analysis are heterogeneous.

MP-09.03
Comparison between Real Time Elastography and Contrast Enhanced MRI Regarding Correct Prostate Cancer Lesion Identification

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Introduction: Conventional grey scale ultrasound has limited sensitivity and specificity in the detection of prostate cancer. Real time elastography is a promising modality to overcome this problem. Contrast enhanced MRI is another popular imaging modality for this purpose. The goal of the current study was a comparison of the diagnostic value between real time elastography and contrast enhanced MRI in the detection of prostate cancer lesions in prostatectomy specimens.

Materials and Methods: Between 11/2008 to 05/2009, 28 patients diagnosed with prostate cancer and scheduled for radical prostatectomy underwent real time elastography and contrast enhanced MRI before radical prostatectomy at least 6 weeks after prostate biopsy by independent physicians. During the exam each prostate was partitioned into 12 sectors (anterior, posterior, left, right, base, middle gland, apex) for a total of 336 sectors evaluated. Suspect zones were identified and filed depending on their localization. The prostatectomy specimens were processed according to the Stanford protocol. The preoperative suspicions for cancer lesions and pathological results were compared for each imaging modality. The Mantel-Haenszel test explored the significance of the difference in accuracy between the two modalities.

Results: Clinical stage was T1c in 78.5%. Pathological stage was pT2a in 14.3%, pT2b in 10.7%, pT2c in 64.2% and pT3b in 10.7%. Median prostate volume was 30 g (range: 10-63 g) and median diameter of the main cancer lesion was 2.5 cm (range: 0.2-4 cm). In total, 88 cancer lesions could be identified in the prostatectomy specimen. For real time elastography vs MRI the sensitivity and specificity for correct cancer identification were respectively 73.4% vs 31.2% and 79.0% vs 90.5%. The NPV and PPV for elastography vs MRI were respectively 83.4% vs 69.2% and 67.4% vs 66.1%. Accuracy for correct identification of the tumor lesion was for elastography 76.5% and for MRI 68.5%. This difference was statistically significant (p=0.02).

Conclusion: In this study, real time elastography showed good ability to identify prostate cancer lesions in the prostate. It has significantly better predictive accuracy for the identification of cancer lesions relative to contrast enhanced MRI. Biopsy studies need to confirm these results.

MP-09.04

The Relative Renal Anatomy in the Prone-Flexed Position for Percutaneous Nephrolithotomy: A Proof of Concept for Our Modified Position

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Introduction and Objectives: Knowledge of relative renal anatomy is imperative when obtaining renal access during percutaneous nephrolithotomy (PCNL) while attempting to minimize morbidity and iatrogenic organ injury. The current study presents the anatomical basis for our position modification and demonstrates why the prone-flexed position facilitates percutaneous renal access and potentially minimizes its morbidity.
Methods: Reconstructed abdominal-pelvic triphasic computed tomography was conducted on 16 patients in the prone and prone-flexed positions. The trajectory of nephrostomy access was virtually positioned at a 30 degree angle off the vertical axis lateral to the paraspinal muscles.
Results: In the prone-flexed position, the left kidney was displaced lower than the right in 92.3% of cases, such that it would have lowered an upper pole puncture from above the 11th rib to one above the 12th rib in 5 of 11 patients (45.5%). When comparing the prone-flexed to the prone position, the mean skin-upper calyx distances were 8.4 mm and 13.4 mm shorter for the right and left kidneys, respectively (p<0.001). For lower pole punctures, the right and left kidneys were significantly lower (11.6 mm and 9.8 mm, respectively) in the prone-flexed as compared to prone position, p<0.001. The prone-flexed position moved the kidney further from the adjacent organs such that the planned trajectory was 13.6 degrees further away from the liver on the right side and 11.3 degrees further from the spleen on the left side (both p<0.001). In the prone-flexed position, the mean angle of trajectory of a rigid nephroscope from an upper pole puncture into the lower calyx was 101.3 degrees, whereas from a lower pole puncture into an upper pole calyx was more acute at 96.1 degrees (p<0.01).
Conclusions: In comparison to the standard prone position for PCNL, the prone-flexed modification shortens the skin-to-kidney distance, lowers the kidneys in relation to the ribs to minimize supracostal punctures, moves the liver and spleen away from potential upper pole punctures and flattens the natural lumbar lordosis to facilitate instrumentation from a lower pole puncture. Lastly, we demonstrate that there exists less infudibular torque during upper pole punctures when instrumenting lower pole calyces due to the more obtuse angle.

MP-09.05

Anastomotic Techniques in Renal Transplant Surgery: A Survey of Canadian Transplant Surgeons

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Introduction and Objective: Despite a relatively small community of renal transplant surgeons in Canada, there is variation in the methods and techniques used between surgeons and across centres. We conducted a nationwide survey of surgeons to quantify practice variation and identify controversies relating to anastomotic techniques.
Methods: Electronic surveys were distributed to 37 academic and community renal transplant surgeons across Canada. Each survey was comprised of two sections: demographic information and 12 surgical scenarios. Data were collected electronically and descriptive statistics performed.
Results: Twenty-seven surgeons responded to the survey (73%). All provinces with active renal transplant programs were represented by the respondent group. Urologists (59.3%), general surgeons (33.3%) and vascular surgeons (14.8%) participated in renal transplant surgery. For most surgical scenarios, there was no clear agreement on a management plan (<70% of participants agreed on a given course of action). Most surgeons (88.9%) reported usually or always placing a ureteric stent at the time of ureterovesical anastomosis while only 55.6% of surgeons employed a non-refluxing technique. Most surgeons (>70%) prefer the right external iliac artery for implantation, regardless of whether the donor kidney is from the left or right side.
Conclusions: Our data identifies some of the disparities in surgical opinion among Canadian renal transplant surgeons. Such information can lead to further clinical investigations and potential development of consensus statements in the field of transplant surgery.

MP-09.06

Long-Term Outcome of Augmentation Enterocystoplasty for Neurogenic Bladder

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Introduction and Objectives: To describe long-term experience and assess the outcome of augmentation enterocytoplasty (AE) in a cohort of patients with neurogenic bladder dysfunction and refractory incontinence.
Methods: This is a retrospective analysis of adults undergoing AE between 1982 and 2010. Patients underwent cystoscopy, videourodynamics, upper tract imaging, and laboratory assessment. The need for simultaneous continence procedure and/or abdominal stoma was determined preoperatively. AE involved incorporation of detubularized bowel into a widely opened bladder (clam cystoplasty). If the urethra was not usable for catheterization continent abdominal stomas were done with the urethral outlet made competent at the time. Continence and reoperation rates were determined.
Results: 140 patients (87 women and 53 men) underwent AE at a mean age of 32 years (range 18-69). 98 were wheelchair bound. The most common diagnoses were spina bifida (69), spinal cord injury (46), and multiple sclerosis (9). 21 underwent undiversions from ileal conduits. Bowel segments included 16 colonic and the 124 ileum with 71 augmentations alone and 69 (57 females and 12 males) with continent abdominal stomas (done mostly with intussuscepted ileum with a tapered efferent limb). Continence procedures were done in 73 females (44 slings with tapered bladder necks (BN) in 22, bladder neck closure in 6) and 40 males (29 slings with BN tapering, 6 slings, and 2 BN closures). Patients were followed for a mean of 7.9 years (median 6.7). Continence was achieved 115 patients (82%). Mean bladder capacity increased from 206 mL preoperatively to 522 mL postoperatively (p<0.05). Mean pressure at capacity decreased from 42 cm of H_2O to 14 cm of H_2O (p<0.05). Sixty-five (46.4%) required re-operation. Reoperative surgeries included 30 for bladder stones, 8 BN revisions or closure, 5 conversion to continent stoma, 9 valve revisions, 9 stoma revisions, 2 parastomal hernia repairs, 1 BN closure, and 4 ileal conduits. The first reoperation was at mean of 5 years (median 3.8) and the second at a mean of 2.5 years (median 1.9) later. There were 2 bladder cancers at 4 and 18 years after AE ultimately resulting in death. Successful term pregnancies (2 vaginal and 2 C-sections) were seen in 4 women.
Conclusions: Follow up after AE reveals a high continence rate and significant improvement in urodynamic storage parameters. Despite a high rate of reoperation over AE with or without other reconstructive procedures is an effective option for patients with intractable incontinence. Because of the long-term and ongoing potential complications judicious long-term follow-up is mandatory.

MP-09.07

Longterm Outcomes of Urethral Reconstruction: Risk Factors for Stricture Recurrence

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Introduction and Objective: Urethral reconstruction has evolved to become an effective therapy for urethral strictures. The primary objective of this study was to review the long-term outcomes for urethral reconstruction with a minimum of 5-years of follow-up. The secondary objective was to examine risk factors for stricture recurrence including, stricture etiology, stricture length/location, BMI, comorbidity status, prior endoscopic management and prior open urethroplasty.

Methods: A retrospective database review of urethral reconstructions performed by a single surgeon (KR) at the University of Alberta from August 2003 to July 2005 was performed. All patients had a minimum of 5 years of follow-up. Outcomes measures were cystoscopic urethral patency and global assessment of voiding function. Independent samples T-test was used to analyze continuous variables. Chi-square analysis was performed for categorical variables.

Results: During the study period one-hundred urethral reconstructions were performed had complete follow-up available. Mean patient age was 47.2 years. Median follow-up was 5.8yrs. Eleven stricture recurrences (11%) occurred. The mean stricture length in the failure group was statistically longer than the non-failure group. (8.6 vs 4.6 cm p=0.002). The stricture etiology Balanitis Xerotica Obliterans (BXO) had a significantly higher failure rate than any other etiology (43% vs 6% p=0.001). Recurrence rates in patients with Charleston Co-morbidity index of 1 or greater did not differ from non-morbid patients (27% vs 10% p=179). Outcomes in patients with prior endoscopic management or urethroplasty did not differ from reconstructive naïve patients (13% vs 8% p=.632)

Conclusion: Stricture recurrence rate following urethral reconstruction is low at greater than 5 years follow-up with an overall success rate of 89%. Recurrence rates appear higher in patients with longer strictures and with BXO etiology. When excluding cases of BXO the success rate of urethral reconstruction approaches 94%.

MP-09.08

Outcomes of the Augmented Non-Transected Anastomotic (ANTA) Urethroplasty for the Treatment of Bulbar Urethral Strictures

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Introduction: The augmented anastomotic urethroplasty (AAU) combines primary urethral anastomosis (after full thickness stricture excision) and onlay grafting. A variant of the AAU involves complete stricture excision without transecting the urethra, theoretically allowing some continued blood flow through the intact spongiosum. Our objective was to compare the outcomes of augmented non-transected anastomotic urethroplasty (ANTA) to dorsal onlay buccal grafting (DOBG).

Methods: This was a retrospective cohort study. Medical records of all patients who received either a single stage ANTA or a single stage DOBG for bulbar urethral stricture disease between 2005-2010 where reviewed. A minimum of 6 months postoperative follow-up was required.

Results: A total of 43 men (n=22 DOBG, n=21 ANTA) with a mean follow-up of 20±15 months were identified. There were no significant differences between ANTA patients and DOBG patients in terms of age, previous treatment, location of the stricture within the bulbar urethra, or postoperative follow-up. ANTA was significantly more likely to be used for an obliterative type stricture (found in 50% versus 18% of those who underwent a DOBG, p=0.043). There was no significant difference between groups in the use of bilateral buccal grafts; mean buccal length harvested was significantly less in the ANTA group (5.1±1.7 cm) versus the DOBG group (6.0±1.9 cm, p=0.048). Overall, there were 6 patients with minor postoperative complications, and 1 patient with a postoperative periurethral abscess requiring conversion to a staged procedure. From the medical records, no new postoperative erectile dysfunction or chordee was reported in either group. There was no significant difference in post void dribbling between the two groups (ANTA 32% versus DOBG 25%, p=0.65). Mean Qmax at last follow-up was similar in both groups (ANTA 23±12 mL/sec versus DOBG 22±9 mL/sec, p=0.92). Overall success rate was 93% and not statistically different between groups, with one ANTA patient and two DOBG patients requiring a post-urethroplasty dilation.

Conclusions: The ANTA has results similar to DOBG in this population. Significantly less buccal graft is required when using the ANTA technique compared to traditional DOBG. ANTA can be used for obliterative type strictures that would have otherwise required a transected AAU.

MP-09.09

Surgical Option for Urethral Reconstruction: An Autologous Tissue-Engineered Tubular Graft

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Introduction and Objective: Many efforts are actually done to improve surgical techniques and graft materials in urethral reconstruction. Various donor tissues have been used but all are associated with different degree of morbidity. We developed an autologous tissue-engineered tubular structure that could be used in urethral reconstructive surgery.

Methods: Two tubular models were created. Human fibroblasts were isolated from a small skin biopsy and cultured *in vitro* until formation of fibroblast sheets. After 4 weeks of maturation, umbilical vein endothelial cells (HUVEC) were seeded on fibroblasts sheets and wrapped around a tubular support to form a cylinder of about 10 layers for the Endothelialized Tubular model (ET). No HUVEC were added in the standard Tubular model (T). After 21 days of tube maturation, urothelial cells were seeded into the lumen of both tubular models. Constructs were placed in a bioreactor for one week with an internal perfusion of urothelial cells culture medium. External culture medium used was specific for endothelial cells and fibroblasts. Grafting procedures on nude mice were performed to demonstrate the effects of endothelial cells in vivo. Sacrifices were done at 7, 14 and 28 days. Histology and immunohistochemistry were performed to characterize mature tubular grafts.

Results: Pre-implantation cytokeratin 8/18 and uroplakine II were positive to confirm urothelium integrity in our structures. Histologically, both models demonstrated a predominant extracellular matrix, completely produced by fibroblasts, and a pseudostratified urothelium. On macroscopy, early sacrifices after implantation (day 7 and 14) revealed a better vascularisation in ET compared to T models. On immunohistochimistry, at day 7, mouse endothelial cells were present in ET, but absent in T model. At day 14, both models were well vascularised, with capillary-like structures in the whole thickness of the tubes.

Conclusions: This tissue-engineered tubular graft is structurally similar to normal urethra. This model is unique by its autologous properties, which represent a real advantage compared to other available grafts. Grafting procedures on rabbit urethra are underway to confirm the clinical feasibility of urethral replacement with our models.

MP-09.10

Wound Complications after Urethral Reconstruction and the Effect of a Monocryl™ Mattress Closure on Healing

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Introduction and Objective: Urethral reconstruction has evolved to become a highly effective treatment for stricture disease. To date there has been no literature reporting the wound complications of a perineal incision used during urethral reconstruction. This study objective is two-fold. 1. To review the wound complications after urethral reconstruction. 2. To examine the effect of a change to horizontal mattress closure (with Monocryl) on perineal wound complications.

Methods: A retrospective database review of bulbar urethral reconstructions performed by a single surgeon (KR) at the University of Alberta from March 2007 to November 2009 was performed. Ninety-day wound complications were reported using the Clavien-Dindo classification of

postoperative complications. Since June 2009 skin closure was modified from a running 4-0 chromic suture to a horizontal mattress technique using 4-0 Monocryl. Wound complications between the two groups of skin closure were also compared using Chi-square analysis.
Results: From March 2007 to November 2009, 211 urethral reconstructions were performed and had complete follow-up available. Forty-three patients (19.9%) experienced Clavien class 1 wound complications. These included minor skin edge separation or epidermolysis requiring reassurance. Six patients (2.8%) experienced a Clavien 2 or 3 complication which included fulgaration of persisting granulation tissue, abscess drainage or removal of foreign body. Twenty-five patients (since June 2009) have had skin closure performed with a horizontal mattress of 4-0 Monocryl (as opposed to a running 4-0 chromic). This resulted in a reduction of a Clavien 1 wound complication rate to 12% with no Clavien 2 or 3 complications experienced.
Conclusions: We now have the data to inform our urethral reconstruction patients of post-operative wound complication rates. Approximately 1 in 5 will experience a complication requiring reassurance only, while 1 in 36 will require further management including pharmacologic therapy or return to the operating room. Moreover, we find skin closure via a horizontal mattress with Monocrylβa superior substitute for running chromic and in fact may reduce post-operative perineal wound complications.

MP-09.11
Urologist Administered Transversus Abdominal Plane (TAP) Block: A Randomized Double Blind Placebo Controlled Trial Comparing Regional Anesthetic during Radical Prostatectomy
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Introduction and Objective: Pain is a significant concern for patients considering an open RRP. Our center's post RRP analgesic protocol includes scheduled acetaminophen, ibuprofen, breakthrough narcotics and anticholenergic/opiate suppositories. This has allowed discharge of 96% of our patients within 48 hours. By injecting local anesthetic into the interfascial plane containing sensory spinal nerves, the TAP block anesthetizes the anterior abdominal wall. Traditionally performed by anesthetists via ultrasound, it has not been evaluated systematically in patients undergoing RRP. We present the results of a double-blinded, control trial of surgeon-administered TAP block in patients undergoing RRP.
Methods: After informed consent, 110 patients undergoing general anesthesia (GA) for RRP were randomized to blinded surgeon-administered bilateral TAP blocks using ropivicaine or saline injections. Blinded nursing staff recorded interval symptom scores (pain, nausea, sedation, and pruritis). Analgesic use, demographic and clinical characteristics were recorded. Descriptive statistics, regression analyses, and repeated measures analysis were used.
Results: Of 110 patients, 16 were excluded due to chronic opiate use, or for requiring a secondary GA. Most patients had low/intermediate risk PCa (low risk 43.1%, intermediate risk 41.9%). Total cases per surgeon ranged from 4 to 37 over the 10-month study period. Immediately following surgery, the TAP block arm reduced the total milligrams of opiates used by 28.7%, and the number of doses by 38.6% compared to the saline arm (p=0.02 and 0.046 respectively). At 24 hours, the intervention arm required 1/3 less opiate doses (p=0.023) compared to controls. Both static and dynamic pain were decreased by an average of 10% in the treatment arm (p=0.018, and 0.037 respectively) over 24hrs. Regression analysis identified one low volume surgeon, and longer operative time to negatively affect opiate requirements and pain scores. No side-effects were encountered.
Conclusions: This double blinded randomized controlled trial, demonstrates that a surgeon-administered regional block during open RRP decreases pain and opiate requirements. Of men receiving this adjunct to GA, 20% required no post-op narcotics. With no documented side-effects, this block provides an effective and low risk addition to current multimodal anesthesia strategies.

MP-09.12
Unilateral versus Bilateral Tined Lead Stimulation for Patient's Selection for Sacral Nerve Stimulation: Outcomes of a Prospective Controlled Study
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Background: Sacral nerve stimulation (SNS) is an accepted treatment modality for refractory voiding dysfunction since 1997. Since the marketing of the percutaneous permanent tined lead (PPTL), the role of the peripheral nerve evaluation (PNE) has been questioned. Many centers rely solely on the PPTL instead of the PNE as a screening tool because it is believed to be a better predictor of success. Furthermore, there are currently mixed results on the better outcome using bilateral permanent leads for patient's selection and in regard to treatment efficacy. This is a prospective study in which the main objectives are to evaluate whether the permanent lead is definitely superior to PNE as a screening tool and to determine whether bilateral PPTL stimulation is superior to the unilateral stimulation for patient's selection and treatment efficacy.
Methods: These are preliminary data as only 16 of the targeted 20 patients have been enrolled. Every patient has undergone the PNE trial and has been subsequently implanted with bilateral PPTL. Each electrode has been stimulated unilaterally for a one week period and then bilaterally for another week. Patients who have shown an improvement of more than 50% on the voiding diaries in comparison to baseline are then implanted with the pulse generator (IPG). The IPG is either connected to both electrodes (PrimeADVANCED®) or only to one (InterStim®) while the other lead is buried in the subcutaneous fat based on the patient's best therapeutic option.
Results: Ten of the 16 patients (62.5%) had a successful PNE trial while the others had a suboptimal improvement rate. The permanent lead stage was successful in 13 of 14 (92.5%) patients. Results are still pending in the other 2. Of the 13 patients with a successful permanent lead stage, 6 (46.2%) have shown a better relief of symptoms using bilateral stimulation. To date, 7 have completed the 6-month follow-up and six of them showed a sustained improvement of symptoms.
Conclusion: SNS is good treatment modality for patients suffering from refractory voiding dysfunction. Further results are eagerly awaited but to date PNE seems less effective than permanent tined lead as a screening tool. Bilateral stimulation does seem to provide a higher progression to IPG rate than the standard method and it does seem to provide a better symptom relief in some patients.

MP-09.13
Long-Term Results of Aspiration and Sclerotherapy for Hydroceles
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Introduction: Hydrocelectomy is the gold standard of therapy for hydroceles. Aspiration and sclerotherapy (AS) has emerged in the last century as a minimally invasive alternative to hydrocelectomy. To date, there are no long-term studies measuring the safety, efficacy and patient satisfaction of hydrocele AS, including the effect of AS on male sexual function. We sought to address the lack of long-term data through follow-up of patients one decade or more following their initial hydrocele AS at our institution.
Methods: All patients who underwent hydrocele AS between 1997 and 2001 at our institution were invited to participate in this 10-year follow-up study. Follow-up data collected on all patients who agreed to enroll in this study included: a focused urological history; a focused genitourinary physical examination; a non-validated 2-page Safety, Efficacy, Satisfaction, and Sexuality (SESS) questionnaire; the International Index of Erectile Function abbreviated 5-question (IIEF-5) questionnaire.
Results: A total of 31 patients underwent initial hydrocele AS. Preliminary data from patients that have completed the follow-up evaluation to date demonstrates that all patients reported being recurrence-free and had no scrotal pathology or pain in the follow-up period. Furthermore, all patients were content with the procedure, would recommend the procedure to

others and would willingly undergo a second hydrocele AS should the hydrocele recur.
Conclusions: This is the first study to provide long-term 10-year follow-up data on hydrocele AS. Our results are limited by incomplete follow-up to date. However, our preliminary results show durability of results of hydrocele AS. Short-term patient satisfaction in the immediate post-operative period and long-term patient satisfaction one decade later was demonstrated. There were no recurrent hydroceles on follow-up examination. These results demonstrate long-term safety and efficacy of hydrocele AS and validate hydrocele AS in the treatment of hydroceles.

MP-09.14

Pelvic Floor Ultrasound as a Measure of Pelvic Floor Muscle Dysfunction in Urological Chronic Pelvic Pain Syndrome in Men

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Purpose: An important cause or maintaining factor for pain in Urological Chronic Pelvic Pain Syndrome (UCPPS) may be pelvic floor muscle (PFM) dysfunction. PFM dysfunction may also be implicated in sexual dysfunction, and influenced by psychosocial factors. Pelvic floor ultrasound is a non-invasive, reliable, and relatively simple method to assess PFM morphology and function. PFM function can be assessed by the anorectal angle (ARA) and levator plate (LP) angle.
Methods: Our participants were 24 UCPPS men and 26 controls. Patients filled out a psychosocial questionnaire package before testing. A GE Voluson E8 ultrasound probe was placed on the perineum and 3D images were taken at rest and during PFM contraction.
Results: UCPPS men had significantly more acute ARAs than controls both at rest and during contraction, but not ARA excursion. The two groups did not differ in LP angle at rest; however UCPPS men had significantly more acute angles during contraction and LP excursion. Acute ARAs were significantly and positively correlated with greater pain report and sexual dysfunction. Anxiety was significantly correlated with more acute ARAs and more obtuse LP angles.
Conclusions: ARA at rest was more acute in UCPPS than controls indicating that UCPPS men may be experiencing chronic tension in their PFM. Overall, three important implications can be drawn from the findings. First, PFM dysfunction separates UCPPS men from controls. Second, PFM dysfunction is significantly correlated with pain, sexual dysfunction, and anxiety. Third, pelvic floor ultrasound is a useful and objective method of assessing PFM dysfunction in UCPPS.

MP-09.15

Compliance of Endourologists with Radiation Safety Measures

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Introduction and Objectives: Exposure to radiation and subsequent orthopedic complaints secondary to heavy radiation protection measures are important occupational hazards that endourologists face. The aim of the present study was to assess the compliance of endourologists with radiation safety measures and determining the prevalence of orthopedic complaints among practicing endourologists.
Methods: An internet-based survey was sent to all members of the Endourological Society. Baseline characteristics on practice pattern (geographical region, age, years of practice, days per week of endourology, and number of cases in the previous year), compliance with various radiation protection measures (thyroid, chest and pelvic aprons, gloves, glasses, and dosimeters), and prevalence of various orthopedic complaints (neck, back, hand and joint problems) were assessed. Furthermore, open-ended questions assessed reasons for non-compliance.
Results: Out of 160 surveys returned, 24 were excluded because of incomplete data. There was good compliance with chest and pelvic shields with 97% of endourologists reported wearing these. However, compliance with thyroid shields was only 68%. Furthermore, only 34.3%, 17.2%, and 9.7% of endourologists reported using dosimeters, lead-impregnated glasses and gloves, respectively. Overall, 86 (64.2%) respondents complained of orthopaedic problems. Specifically, 51 (38.1%) complained of back problems, 37 (27.6%) complained of neck problems, 23 (17.2%) complained of hand problems, and 19 (14.2%) complained of hip and knee problems. Furthermore, the prevalence of orthopaedic complaints were significantly higher among African endourologists, older endourologists (>40 years), longer duration of practice (>10 years) and combined annual caseload of ureteroscopies (URS) and percutaneous nephrolithotomies (PCNL).
Conclusion: There is lack of compliance among endourologists in the use of certain radiation protection measures such as thyroid shield, dosimeter, lead-impregnated glasses and gloves. Orthopaedic complaints among practicing endourologists are common and correlate with the annual caseload of combined URS and PCNL.