Moderated Poster Session II: Trauma/Reconstruction, Voiding Dysfunction, Pediatrics
Thursday, Oct 31, 2013
3:15 PM - 5:00 PM

P16
Selection and Timing of Urinary Drainage in Pediatric Grade 4 Blunt Renal Trauma with Collecting System Injury

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Background: Conservative management of high-grade blunt renal trauma in the pediatric population is gaining support. While literature supports the success of non-operative approaches, limited data exists on the timeframe and predictive factors associated with failure of conservative management. This prompted an institutional review at a level 1 trauma centre.

Methods: Records were retrospectively reviewed for 104 children with blunt renal trauma (2001-2012). We identified children 0-18 years old with Grade 4 renal laceration, categorizing clinical outcomes, radiographic variables and rationale for intervention. Statistical significance was determined with Chi-square and Mann-Whitney U tests for categorical and continuous variables.

Results: Twenty- six children (median age 11.5, 69% male) sustained Grade 4 renal laceration. Conservative management was attempted in 16 patients, but failed in 7 (with 3 hospital re-admissions and a median time to intervention of 13 days). In addition to these 7 children with delayed intervention, 10 children were selected for early intervention (within 72 hours of presentation); therefore a total of 17 (65%) patients required stents or percutaneous drains to control urinary extravasation. Outcomes are categorized in figure 1, noting a trend toward prolonged median length of stay with early and delayed intervention (9 and 8 days) versus conservative management (5 days) ($p = 0.064$). Radiographic comparison of CT scans at presentation revealed differences in four investigated variables, when comparing children who were managed entirely conservatively versus required delayed intervention. *Collecting system clot* was present in 3 (33%) versus 7 (100%) patients, respectively ($p = 0.006$). A *dissociated renal fragment* was seen in one (11%) versus 4 (57%) patients, respectively ($p=0.067$). Median *urinoma size* was 1.1 cm versus 3.7 cm ($p=0.005$), respectively. Finally, fewer *total CT scans* were performed in those who succeeded conservative management (mean: 2 and 3 respectively) ($p= 0.030$).

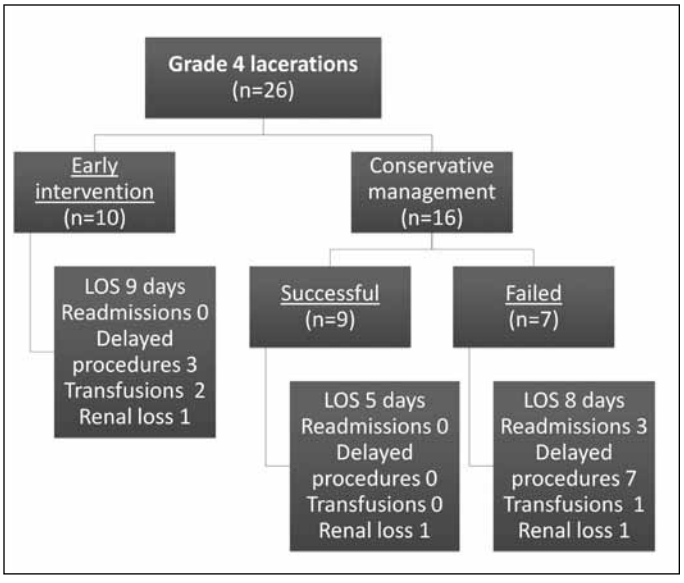

Fig. 1. P16.

Conclusions: When conservative management is successful for children with Grade 4 renal lacerations, there is potential for reduced length of hospital stay. However, a subset may require readmission and delayed intervention. Children at greatest risk for delayed intervention had evidence of intrapelvic clot, initial urinoma size >3 cm, or >2 total CT scans.

P17
Objective Findings of Mesh-Related Complications in Patients Presenting with Mesh Complaints

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Background: The aim of this study was to evaluate the true incidence of mesh related complications among patients presenting with "mesh anxiety", describe objective findings and report on outcomes of treatment in these patients.

Methods: From August 1, 2012 to April 30, 2013, a total of 25 patients presented with complain related to perceived mesh complications. Past operative reports were obtained for most patients and all patients underwent a complete history and physical examination including pelvic exam and cystoscopy. If objective findings of mesh extrusion, erosion or exposure were found, the patients were offered appropriate corrective surgery.

Results: A total of 25 patients with average age was 61 years (range: 34-85) presented with complaints of mesh related complications. Presenting complaints included incontinence in 12/25 patients (48.0%), pelvic pain in 6/25 (24.0%), pelvic pain and incontinence in 3/25 (12.0%), and other (e.g., recurrent UTI, dysuria, stranguria, recurrent incontinence) in 4/25 (16.0%). Average time from implantation to presentation was 65 months (11-276 months). Initial procedures were performed due to pelvic organ prolapse (POP) in 7/25 (28.0%), incontinence in 12/25 (48.0%), and combination of POP and incontinence in 6/25 (24.0%). Operative reports indicated that 22/25 (88.0%) patients had a mesh and 1/25 (4.0%) patient had no mesh; operative reports were not available for 2/25 (8.0%) patients. Objective findings in 12 patients (48.0%) demonstrated mesh-related complications. Complications included extrusion into vaginal epithelium in 6 (24.0%), erosion into urinary tract in 2 (8.0%), and point tenderness over the arms of the mesh in 4 (16.0%). A total of 8/25 (32.0%) patients were offered mesh excision: 4/8 (50.0%) patients underwent an operation, 3/8 (37.5%) patients are awaiting their procedures and 1/8 (12.5%) deferred the operation. All other patients were treated conservatively. All patients treated with mesh excision reported complete resolution of presenting symptoms.

Conclusions: In this study, half of the patients presenting with perceived mesh-related complaints do not have objective findings of mesh complications or sometimes even a history of mesh placement. However approximately 50% do have objective findings of mesh complications. In this sub-population of patients the removal of the mesh often alleviates their symptoms.

P18

Patient Reported Quality of Life and Timing of Discharge After Outpatient or Short-Stay Urethroplasty

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Background: While traditionally patients after urethral reconstruction required 3-4 days admission for immobilization and pain control recent literature has demonstrated the safety and feasibility of urethroplasty as an outpatient procedure. Our study was designed to assess quality of life of patients undergoing urethroplasty treated in the outpatient or a short hospital stay.

Methods: Charts of 19 consecutive patients who underwent anterior or posterior urethroplasty between 9/2012 and 5/2013 were reviewed. Perioperatively patients were given a choice to be discharged after surgery or to remain overnight. EuroQuol-5 (EQ-5), a validated quality of life (QOL) questionnaire was administered to assess mobility, self-care, usual activities, pain or discomfort, and anxiety/depression. The choices were moderate, severe and no problems. One more question assessing timing of discharge was added to the interview.

Results: Mean age was 45.8 year (17-75). Mean length of urethral stricture was 55.8 mm (4-160mm), including three panurethral strictures. Procedures performed included excision primary anastomosis (EPA) (5), augmented anastomotic urethroplasty (AAU) (2), Staged urethroplasty with buccal mucosal graft (BMG) (4), single-stage Kulkarni dorsal onlay urethroplasty (6) and posterior urethroplasty (2).

All patients, with the exception of two posterior urethral disruptions, were offered a choice of discharge time. Six patients (35.03%) chose to be discharged immediately, while 11 patients (64.71%) chose to stay overnight. The two patients after posterior urethral repairs were discharged within 23 hours. Furthermore, 18/19 patients (94.7%), were discharged within 23 hours of surgery.

16/19 patients responded to the EQ-5 within a day at a 88.9% response rate, after the elimination of the one pediatric patient (Table 1). In the short-stay and the outpatient cohort, 85.7% and 66.7% respectively felt they were discharged on time.

There have been no emergency room visits, readmissions to the hospital or recurrences from either cohort.

Conclusions: Majority of patients discharged immediately feel that it was proper time for discharge and their quality of life as indicated by the EQ-5 was only minimally affected. Urethral reconstruction as outpatient or a short hospital stay could minimize health care cost without compromising QOL or affecting a perception of discharge timing negatively.

P19

Complex Urethroplasty with <23-Hour Stay: Early Functional Outcomes

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Background: Urethroplasty has been traditionally considered a major urological procedure that requires long postoperative hospitalization for pain control and immobilization. The aim of the current study is to report functional outcomes of *complex* urethral reconstruction performed as an outpatient or a total hospital stay of less than 23 hours.

Methods: A retrospective chart review identified 12 patients with long or panurethral strictures (5), hypospadius cripple (5), and post pelvic

Table 1. P18. Number (percentage) peporting on EQ-5 and discharge time

		Problem		
EQ5; n=16	**Severe**	**Moderate**	**No problem**	**Median**
Mobility				
All responders	0 (0.0)	9 (56.3)	7 (43.8)	
Short-stay n=10		6 (60.0)	4 (40.0)	2
Outpatient n=6		3 (50.0)	3 (50.0)	2.5
Self-care				
All responders	1 (6.3)	3 (18.8)	12 (75.0)	
Short-stay	1 (10.0)	3 (30.0)	6 (60.0)	3
Outpatient	0 (0.0)	0 (0.0)	6 (100.0)	3
Usual activities				
All responders	5 (31.3)	6 (37.5)	5 (31.3)	
Short-stay	4 (40.0)	2 (20.0)	4 (40.0)	2
Outpatient	1 (16.7)	4 (66.7)	1 (16.7)	2
Pain/discomfort				
All responders	1 (6.3)	14 (87.5)	1 (6.3)	
Short-stay	1 (10.0)	8 (80.0)	1 (10.0)	2
Outpatient	0 (0.0)	6 (100.0)	0 (0.0)	2
Anxiety/depression				
All responders	1 (6.3)	3 (18.8)	12 (75.0)	
Short-stay	1 (10.0)	3 (30.0)	6 (60.0)	3
Outpatient	0 (0.0)	0 (0.0)	6 (100.0)	3
		Time		
Discharge; n=14	**Too late**	**Too soon**	**On time**	
Timing of discharge				
All responders	0 (0)	3 (21.4)	11 (78.6)	
Short-stay n=8		1 (12.5)	7 (87.5)	
Outpatient n=6		2 (33.3)	4 (66.7)	

fracture urethral disruption defect (2). The procedures included single stage Kulkarni dorsal onlay urethroplasty (5), staged urethroplasty with buccal mucosal graft (5), or posterior urethroplasty (2). Patients with short strictures treated with excision and primary anastomosis (5) or augmented anastomotic urethroplasty (2) were excluded. Preoperative variables included patient age, etiology of the urethral stricture, anatomical location of the stricture according to preoperative retrograde urethrogram (RUG), uroflowmetry (Qmax) and post voiding residual urine (PVR). Postoperative parameters included Qmax and PVR which were evaluated in a 1 to 4 month follow-up visit after surgery. Postoperative emergency calls, ED admissions or unscheduled office visits were also recorded.

Results: The median age was 41.5 years (18-75). Median length of urethral defect was 52.5 mm (20-150 mm). There were no readmissions or reoperations. There was one unscheduled office visit and one ED visit related to post-RUG pain. There were no short-term recurrences.

Preoperative and postoperative Q max and PVR data were available in 8 patients out of 12 (66.7%). Median preoperative and postoperative Qmax were 1.0 (0-36) and 22.0 (12-40) mL/sec, respectively. Median preoperative and postoperative PVR were 177.0 ml (0-1000 mL) and 34.0 ml (0-200 mL), respectively. The increase in the Qmax and decrease in PVR was 19.5 mL/sec and 140 ml, respectively.

Conclusion: In our experience, complex urethroplasty as an outpatient procedure is feasible and safe. Consistent with published data, it shows a significant improvement of urine flow and residual urine volumes. Complex urethral reconstruction procedures with short hospital stay result in excellent short-term functional outcomes without increasing the burden of post-operative care.

P20

Lower Urinary Tract Symptoms in Bladder Pain Syndrome/ Interstitial Cystitis; In-Depth Analysis in Women

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Background: The aim of this study is to determine if the patient's age and the severity of the lower urinary tract symptoms (LUTS; including suprapubic pain) were associated with the cystoscopic findings in women with a diagnosis of Bladder Pain Syndrome/Interstitial Cystitis (BPS/IC). Furthermore, we checked the correlation between the lower urinary tract symptoms and the maximum cystoscopic capacity (MCC) under anesthesia.

Methods: We conducted a retrospective analysis of 447 female patients who in the years 1993-2012 were diagnosed with Bladder Pain Syndrome/ Interstitial Cystitis BPS/IC based on the ESSIC Criteria. LUTS were recorded by systematic interview. All patients underwent cystoscopy under general anesthesia following a protocol of bladder distention at 80 cm height of irrigating fluid. Cystoscopic findings were described according to ESSIC criteria. Spearman correlation quotient (R) and p quotient were calculated using Statistica. Statistical significance was set at $p<0.05$

Results: Average patient's age was 45 years (16- 91), SD 14.21. We found statistically significant ($p<0.05$) positive correlations between the severity of cystoscopic findings and the severity of suprapubic pain (SPP) (R=0.15; p=0.0017) and the severity of urinary frequency (R=0.16; p=0.0008), respectively. The severity of stress urinary incontinence (SUI) (R=-0.14; p=0.0028) and urgency urinary incontinence (UUI) (R=-0.14; p=0.0027) were inversely correlated to the severity of cystoscopic findings. We also observed positive correlations between urinary frequency (R=-0.12; p=0.0123) and nocturia (R=-0.16; p=0.0006) with MCC. However SUI (R=-0.01; p=0.7688) and UUI (R=-0,1; p=0.0285) were negatively correlated with MCC. Surprisingly, the patients' age was inversely correlated with severity of cystoscopic findings (R=-0.12; p=0.01).

Conclusions: Our study confirms our clinical impression that the severity of SPP and the severity of urinary frequency correlate to the severity of bladder inflammation. However, we could not confirm the same correlation with nocturia. We also found that younger patients have more severe bladder changes. In conclusion, suprapubic pain and urinary frequency in younger patients correlate to severity of disease.

P21

Retrograde Leak Point Pressure Measurement Improves Outcomes Of The Virtue Male Sling For Post-prostatectomy Stress Urinary Incontinence

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Background: Male slings were introduced in the 1990s and have been shown to be safe and efficacious alternatives to the artificial urinary sphincter. We report our single institution experience of the Virtue Male Sling. Objectives of the study are to evaluate the efficacy and complication rate of the Virtue Male Sling for the treatment of post-prostatectomy incontinence (PPI) with and without per-operative retrograde leak point pressure (RLPP) measurement, and to evaluate the subjective satisfaction rate from patients regarding quality of life (QoL) after treatment.

Methods: Retrospective evaluation of continence rate and complications in 34 men consecutively treated with the Virtue Male Sling for PPI between March 2009 and February 2013. Adequate sling tensioning was verified with cystoscopy in the first 18 patients, while per-operative measurement of RLPP was carried out in the last 16 patients. Follow-up schedule was at 2, 6, and 12 months, then yearly. Patient Global Impression of Improvement (PGI-I) scale was used to measure subjective satisfaction at the last follow-up visit.

Results: Mean (range) follow-up was 15.9 (1.8-45) months. Mean (range) age was 66 (53-75) years. Eleven (32%) patients had mild, 17 (50%) patients had moderate, and 6 (18%) patients had severe PPI. Of the first 18 patients who did not have RLPP measured during the surgery, 11 (61%), 3 (17%), and 4 (22%) patients had no improvement, improvement, and cure of their PPI respectively, compared to 2 (12.5%), 2 (12.5%), and 12 (75%) of the last 16 patients who did have RLPP measured. Final mean (range) per-operative RLPP measurement was 41.1 (35-58) cm H2O. 11 (61%) of the 18 patients who did not, compared to 1 (6%) of 16 patients who did have RLPP measured had subsequent surgical treatments for unimproved PPI. Transient pain occurred in 2 (11%) of the 18 who did not, compared to 10 (62%) of the 16 patients who did have RLPP measured. In the group with RLPP measurement, 1 patient had a wound dehiscence which was debrided and primarily closed, and another patient had urinary retention requiring catheterization for two days. Five (28%) of the 18 patients who did not, compared to 12 (75%) of the 16 patients who did have RLPP measured were very satisfied with their device.

Conclusions: The Virtue Male Sling is a safe and valuable treatment option for mild and moderate PPI. Per-operative RLPP measurement significantly improves cure and satisfaction rates.

P22

VCUGs Not Necessary in Evaluation of Symptomatic UPJ Obstruction

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Background: Ureteropelvic junction obstruction (UPJO) is a common collecting system anomaly that can lead to progressive renal damage, pain, stone formation, nausea, vomiting and failure to thrive. Prenatal ultrasound helps identify 90% of congenital UPJO in the first year of life. The remaining 10% of pediatric UPJO are diagnosed in childhood due to presence of symptoms including hematuria, pain or episodic vomiting. Voiding cystourethrogram (VCUG), is routinely used in the workup of neonatal hydronephrosis to determine need for antibiotic prophylaxis to identify vesicoureteral reflux (VUR). About 10% of patients with UPJO have concurrent VUR. Traditionally, all children with UPJO undergo VCUG prior to surgical correction. The purpose of our study is to determine the role of VCUG in the management of children who present with symptomatic UPJO.

Methods: This retrospective study was approved by the institutional review board. We identified all patients with diagnosis code for UPJO from 2007 to February 2013. Exclusion criteria were pre- and neo-natal hydronephrosis, febrile urinary tract infection necessitating VCUG and incidentally found asymptomatic UPJO.

Results: 230 patients with UPJO were identified. 171 patients were excluded for aforementioned reasons. An additional 12 were excluded because they did not undergo VCUG. Eleven of those underwent pyeloplasty. Of the 36 VCUGs performed, 2 were aborted due to patient discomfort, 1 revealed grade 1 reflux on the affected side, 1 revealed bladder diverticuli, and 32 VCUGs were normal.
27 boys (mean age 10) and 9 girls (mean age 8.8) were identified. Presenting symptoms included pain (n=26), nausea and or vomiting (n=9), hematuria (n=4), hypertension (n=2), anorexia (n=2) and incontinence (n=2). 15 patients underwent open and 21 underwent robotic pyeloplasty. Intraoperative findings included 4 patients with ureteral stenosis, 9 patients with crossing vessels, and 9 patients who had other abnormalities including scarring, abnormal kinking during peristalsis, and high insertion. Follow-up ranged from 20 days to 6.6 years with a median follow-up of 8.7 months. Thirty-five patients had resolution of their symptoms and radiological improvement. One patient had recurrent obstruction and was treated with balloon dilation. He reported resolution of symptoms at his 1-year follow-up. None of the patients with or without VCUG evaluation had recurrent febrile urinary infections or sepsis postoperatively.
Conclusion: VCUGs are falling out of favor due to cost, radiation exposure and patient discomfort. This study supports omission of VCUG in workup of patients with symptomatic UPJO.

P23
Management of Undescended Testis May Be Improved With Educational Updates For Referring Providers

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Background: Several studies have demonstrated that ultrasound is not helpful in diagnosis of undescended testis (UDT) and is not recommended. In spite of that a large proportion of boys referred for UDT have had an ultrasound (US) prior to referral. The first goal of our study was to objectively assess the severity of this problem in our area. The second aim was to determine if educational services for the referring providers (RP) resulted in decreasing USs for UDT. We also categorized all providers referring a UDT case by specialty (pediatrician, family practice, other) to determine if there was a subgroup more likely to order US. This is the first study to assess results of educational services focused on reducing wasted medical care dollars in our field.
Methods: A chart review was done on new patients referred for UDT from January 2010 through June 2012. Data collection included date of pediatric urology office visit, whether or not an US had been obtained and provider ordering the US. All providers who referred a boy for UDT during the study period were categorized as (1) pediatrician, (2) family practice physician or (3) other. Several types of educational services on UDT management were provided to our RPs. The proportion of boys presenting to our practice who had US prior to referral was tracked for each month of the study period.
Results: Of 338 boys referred for UDT, 62 (18%) had an US *and* presented to our practice during the study period. Of 159 pediatricians and 60 family practice providers referring patient(s) for UDT during the period, 35 (22%) pediatricians and 16 (27%) family practice providers ordered an US for one or more patients. This difference was not statistically significant. Five USs were ordered by general urologists.
Over the period of our educational updates there was a statistically significant trend downward of patients having US ordered by the RPs (Chi Square trend test, $p<0.01$)
Conclusions: Obtaining unnecessary US for UDT is similar in our area to that reported in other parts of the country, suggesting this is a nationwide problem. This translates into tens of millions of health care dollars wasted each year. It was encouraging to see a significant decrease in USs following our educational services. We believe that subspecialists should provide educational updates for referring providers to promote cost effective care as well as better medical care.

P24
Do Gastroesophageal and Vesicoureteral Reflux Share A Common Pathophysiologic Mechanism? A Population-based Study

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Background: Clinical anecdotal observation suggests that GER and VUR are concomitantly diagnosed at a higher rate than would be expected. One other study has explored this relationship using ultrasound diagnosis in a selected population (Pooli, Int Urol Nephrol, 2012). Both disease processes result from a deficiency in an anti-reflux mechanism and have a similar time-line for presentation and resolution. If a correlation could be documented between these two conditions, it may allow for earlier identification and avoidance of morbidity for some patients through early recognition and intervention if appropriate.
Methods: A retrospective database review of individuals aged 0-16 years registered in the Nova Scotia (NS) Medical Service Insurance (MSI) Database from January 1997 to December 2012 was completed. Individuals must be registered in this database to receive medical care paid for by the government in the province of NS, Canada. ICD9 billing codes for the diagnosis of VUR and GER were used to identify patients of interest. The baseline prevalence of GER and VUR was calculated for the population of individuals aged 0-16 years registered in the MSI database for the same time period (n=407,609). Proportions of VUR patients with and without GER were compared using the chi square test ($p<0.05$). The association between VUR and GER was further explored using logistic regression controlling for gender and age.
Results: Of eligible individuals, 7.46% had a diagnosis of GER (n=30,418), 0.33% had a diagnosis of VUR (n=1,344), and 0.001% had concomitant GER and VUR (n=340). Among patients with GER, the prevalence of VUR was 1.12%, compared to 0.27% in patients without GER ($p<0.0001$). The risk of being diagnosed with VUR was higher in the presence of GER (OR 4.2; CI 3.74-4.79; $p<0.0001$) and that association persisted after adjusting for gender. Patients with GER between 1 and 5 years of age were much more likely to be diagnosed with VUR compared to infants (0-1 years (OR 7.1 [CI 6.3-8.2]) and older children ($\geq$5 years of age OR 8 [CI 6.9-9.2]).
Conclusions: In Nova Scotia, there is evidence of a true difference in the prevalence of VUR in pediatric patients with a concomitant diagnosis of GER versus those without GER. A diagnosis of VUR is more than 4 times more likely in an individual with GER, suggesting that clinicians should have a higher suspicion for the diagnosis of VUR in pediatric patients with GER.

P25
Prospective Tracking Of Radiation Exposure In Pediatric Stone Patients: The Time Is Now.

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Background: The incidence of pediatric nephrolithiasis is increasing. Some radiation exposure in children is a necessary consequence. Unfortunately, higher levels of radiation exposure are associated with increasing risk of solid and hematologic malignancies. Thus, it is important for pediatric institutions to assess historical use of radiation in patients with stone disease and develop protocols to minimize future exposure.
Methods: We reviewed a historical cohort of patients treated for pediatric nephrolithiasis from 2005-2012. Patients were stratified by procedure into three groups: cystoscopy with stent placement (CS), ureteroscopy (URS), and percutaneous nephrolithotomy (PCNL). Patient demographic information, stone size, stone location, number of radiographic images, and fluoroscopy times were determined.
Results: A total of 136 patients (61% female) underwent 263 urologic procedures (54 CS, 186 URS, 23 PCNL) with a median follow-up of 19 months (IQR 6-42). Mean patient age at time of stone treatment was 12.2±4.7 years. At presentation, 136 stones (52%) were ureteral and 127

(48%) were renal. Of 64 patients on whom 24h urine collections were performed, 49 (77%) had abnormal results, most commonly hypercalciuria. Patients underwent an average of 1.5±1.4 CT scans and 1.3±1.7 abdominal x-rays. Median fluoroscopy times were 51 (IQR 27-95), 90 (IQR 51-135), and 456 (IQR 288-915) seconds for CS, URS, and PCNL respectively. Stone size correlated positively with fluoroscopy time ($r=0.41$, $p<0.001$). No new malignancies were identified during the limited follow-up period.

Conclusions: Radiation exposure in pediatric stone patients from diagnostic studies and interventional fluoroscopy is not trivial. Urologists should closely monitor the amount of fluoroscopy used, particularly in percutaneous cases with large stone burdens. Prospective studies are currently underway to elucidate precise dose measurements and localize sites of radiation exposure in children during stone treatment.

P26

Dextranomer/hyaluronic Acid Copolymer (deflux) Injections In A Teaching Centre: How Looking At Our Practice Changed The Future - Or Not

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Background: We previously presented the long-term effectiveness of endoscopic treatment of vesicoureteral reflux (VUR) performed at our teaching hospital, where we use a modified sting procedure using Deflux and allow all team members to participate. Our surgical successes after one injection did not measure up with the best results reported by those who do many, operate themselves and often use larger amounts of injected material.

Therefore, we decided to analyse our latest data wondering if knowing our previous institutional results made a difference in our approach (patient' selection, degree of reflux, case complexity, amount of debulking agent injected, etc).

Methods: Only 48 children (14 males and 34 females, mean age of 5.8 years) in 2009-2012 underwent endoscopic correction of primary VUR with Deflux (Q-Med Scandinavia, Uppsala, Sweden) compared to 101 over a similar period in 2005-2008. Reflux was unilateral in 27 cases and bilateral in 21 (69 ureters). Reflux was grade I in 6 (9%) cases, II in 24 (35%), III in 28 (40%) and IV-V in 11 (16%) vs. 9, 38, 40 and 13% in the first study. All patients underwent endoscopic correction as a day procedure. A modified sting procedure was used and performed by attendings or residents/fellows under attending's supervision. One patient with bilateral reflux had a contralateral ureteral reimplantation. In addition to routine parameters, post-operative cystograms were performed at an average of 4.4 months.

Results: 68 refluxing ureters were injected with Deflux. Complete post-operative information was available for review in 40 patients (62 ureters). The reflux was corrected in 43/62 ureters (69%) after one injection (success rate by patient of 43%). Twelve patients with persistent VUR (5 bilateral) chose to have another injection (7/12 cured). An average bolus volume of 1,22ml and 1.7ml was used for first and second injections (vs. 0.81ml for the previous study). Successes by grade (I to V) after the first injection were 83%, 75%, 62%, 63% and 50%.

Conclusions: Although cohorts are unpredictably very similar, much less sting procedures have been performed over a similar period for a comparable institutional practice. We did however notice a trend towards injecting larger volumes and getting cystograms sooner without significant changes in the outcome. Therefore, it appears that modifying our practice, intentionally (less procedures, larger bolus) or unintentionally, did not affect the surgical outcomes considerably.

P27

Acellular Dermal Matrix Bladder Neck Sling: An Adjunct to Augmentation Cystoplasty And Continent Catheterizable Stoma Procedure In Pediatric Patients With Neurogenic Bladder

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Background: Acellular dermal matrix slings have been used with varying success in adult urinary incontinence surgery. Currently, no data has been reported on the use of acellular dermal matrix bladder neck sling in the pediatric neurogenic bladder population. The objective of this study is to report the short-term results of two pediatric patients with neurogenic bladder managed with augmentation cystoplasty, continent catheterizable stoma procedure and acellular dermal matrix bladder neck sling.

Methods: Between January 2012 and April 2013, 16 augmentation cystoplasties were performed by a single surgeon at our academic institution. Eleven patients had a concomitant bladder outlet procedure. The most common bladder outlet procedure was autologous rectus fascial sling. In two cases rectus fascia was limited due to closure of a cutaneous vesicostomy in the setting of prior abdominal surgeries. In these two cases, acellular human dermal matrix was substituted. The graft was wrapped circumferentially around the bladder neck, elevated, and secured to the periosteum of the pubis.

Results: Patient 1, a 15 year old female with sacral agenesis, had daily urethral incontinence despite having a patent cutaneous vesicostomy. In 90 days of postoperative follow-up, patient 1 has had no episodes of urethral incontinence. Patient 2, a 6 year old female with neurogenic bladder associated with multiple congenital anomalies, had daily urethral incontinence despite a patent cutaneous vesicostomy and demonstrated an open bladder neck on preoperative video urodynamic evaluation. In 60 days of follow-up, this patient had one episode of urethral leakage which preceded a large volume catheterization. Neither patient experienced a complication related to the bladder outlet procedure during follow-up.

Conclusion: The use of acellular dermal matrix when autologous fascia is not available appears to be a viable option in the management of the bladder outlet in pediatric patients undergoing augmentation cystoplasty and continent catheterizable stoma procedures. Longer follow-up and more extensive experience is required to determine the durability and reliability of our results.