I have an informative video that I’d like to share with other urologists on how to advertise effectively:
https://jillbrahms.wistia.com/medias/mvtwhz69sk
THE RAPIDLY EXPANDING PERINEAL MASS IN AN INFANT: A CASE OF PERINEAL LIPOBLASTOMA

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(Presentation to be made by Daniel Sackman)

Objectives: Present a rare case of perineal lipoblastoma in an infant.

Methods: A 15 month old male was referred for a rapidly growing painless perineal mass that developed over 2 weeks. Scrotal/ perineal US demonstrated a 4.7 cm solid lobular mass inferior to the scrotum with definitive blood flow within it. To better characterize the mass an MRI was obtained which showed a 5.9 cm well circumscribed mass with heterogenous postcontrast enhancement. Findings were felt to be concerning for a perineal rhabdomyosarcoma, teratoma or liposarcoma. He was taken to the operating room for excision of this mass.

Results: A 5 cm ellipsoid incision was made from the inferior 1/3 of the scrotum to 2 cm from the anal verge. The mass was resected with a generous margin except where it abutted the bulbous urethra where a second deep margin was taken to ensure adequate resection. The mass was lobulated and seemed to arise from the ventral surface of the bulbous urethra at the external sphincter. Final pathologic diagnosis was lipoblastoma measuring 6.2 cm with negative margins.

Conclusion: Lipoblastoma is a rare pediatric benign soft tissue tumor representing only 1% of all childhood neoplasms. Perineal lipoblastoma is extremely rare with only 8 cases previously reported in the literature. Lipoblastoma is characterized by early presentation (90% are diagnosed at < 3 years), male predominance (3:1) and rapid growth, all of which were seen in our case. Although imaging can provide useful information regarding the position, depth and anatomical relationships of this entity, definitive diagnosis is dependent on post-operative pathologic analysis. Given this and the fact that these tumors are estimated to have a recurrence rate ranging as high as 25%, the gold standard treatment is complete surgical excision. Mean time to local recurrence is 3 years, so long term follow-up is warranted in these patients.

Source of Funding: None
JABBA THE NUT: AN EXTRAORDINARY CASE OF MASSIVE LOCALIZED SCROTAL LYPHEDEMA

Remy W. Lamberts, M.D., Rustin A. Massoudi, M.D., David P. Guo, M.D., Kai Dallas, M.D., Catherine R. Harris, M.D.: Stanford, CA

(Presentation to be made by Dr. Remy Lamberts)

Introduction: Massive Localized Lymphedema (MLL) has become increasingly common as the morbid obesity rate in the United States continues to rise. They not uncommonly involve the suprapubic pannus and scrotum and have a 7-13% conversion rate to angiosarcoma. Review of prior literature shows removal a pannus as large as 34kg. We present an extraordinary case of excision of 91kg portion of massive localized lymphedema.

Case: A 49M with morbid obesity (BMI 68) presented to our ED with wound infection at base of an enormous 3x3ft scrotal & suprapubic pannus related to dragging on the ground during ambulation. He noted enlargement of his previously grapefruit size scrotum over the last 10 years. He was barely ambulatory, and had unbearable quality of life with only two request: 1. Walk, 2. Wear pants. As he could not fit in CT scanner, we had small and large bowel follow through studies to assure no hernia or bowel within the massive outgrowth. Previous ultrasounds showed avascular testis and his testosterone was 40. A heroic effort was made in an 8 hour surgery using 4 surgeons, 3 LigaSures, 2 bovies, to perform complex excision of scrotum and suprapubic fat pad and testicles while preserving the penis via penile transposition (penostomy) to upper flap of his fat pad. Pathology showed a “200 lbs” mass measuring 90x90x40cm consistent with edematous and inflammatory lymphedema. The testis were unable to be identified. His post-operative course was complicated hypotension and hypoventilation requiring ICU admission. He recovered from this, and not unsurprisingly developed separation of his entire incision. This was managed with revision and complex wound VAC requiring 16 changes in the OR, at which point bedside placements became feasible. He was discharged with outpatient wound VAC exchanges. At his last follow up visit, 4 months post op he was noted to be urinating great and wound fully healed. We are happy to report that both his goals were achieved: he walks regularly, in pants.

Conclusions: Although rare, cases of MLL are increasing. Although complex, excision of more massive growths can be successfully done. This should be done particularly in cases where quality of life is quite poor, and to help prevent transformation to angiosarcoma.
Purpose: Proper evaluation of a new scrotal mass must include a thorough history, in addition to the standard physical exam and ultrasound. Collectively, these aid urologists in determining the likelihood of benign versus malignant pathology. We describe a case of testicular filariasis, a rare benign pathologic finding in a soldier raised in Sri Lanka. Our intent is to expand clinicians’ differential diagnoses based on travel history and increase awareness of a rare etiology of granulomatous orchitis.

Materials and Methods: PubMed literature review was performed to investigate the prevalence of orchitis from filariasis. Only three case reports specifically related to filariasis of the testicle were found. We compared the history, physical exam, and management of our patient to the cases published in literature.

Results: In this case report, we address a 22-year-old male, from Sri Lanka, with new onset scrotal swelling and a palpable right testicular mass. He underwent a scrotal ultrasound that identified a 1.0 cm right testicular mass with internal vascularity and signs of possible invasion into the tunica albuginea. A left varicocele was also confirmed. Physical exam revealed a firm, minimally tender, well circumscribed right testicular mass and an asymptomatic left grade 3 varicocele with the classically described “bag of worms” appearance. He had no scrotal or genital edema. He underwent a RIGHT open inguinal radical orchiectomy. Surgical pathology showed no cancer, rather, filarial orchitis, most consistent with Wuchereria Bancrofti.

Conclusion: Filarial disease is endemic in tropical regions, such as Sri Lanka. Lympathic filariasis with resulting pelvic lymphatic congestion and genital swelling is a well-described source of secondary orchitis. Our case of testicular filariasis causing primary orchitis is a rarely described phenomenon. Literature review revealed only three prior described cases. Review of potential diagnostic findings with genitourinary filarial infection described possible ultrasound visualization of the adult worm’s movement, or “filarial dance”, during scrotal ultrasound. Unfortunately, we did not have any real-time evidence of an analogous dance in this patient’s testicle. Overall, the presentation and management of this patient was consistent with prior case reports.
SELF-INFLICTED ORCHIECTOMY IN THE SETTING OF MENTAL ILLNESS, METHAMPHETAMINE USE, AND THE EASY AVAILABILITY OF NAIL CLIPPERS

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(Presentation to be made by Dr. Pierce)

Introduction: Self-inflicted testicular trauma is the most common form of genital self-mutilation in males and can be associated with psychiatric illness and illicit drug use.

Methods: A 33 year-old male with extensive history of methamphetamine use and a known diagnosis of paranoid schizophrenia was found in a liquor store bleeding from his scrotum, stating that his penis was not working anymore and that he cut off his left testis with a nail clipper and flushed it down the toilet. He stated that he planned to remove his right testicle as well so that he could not get anyone pregnant. In the ED, he was bleeding profusely while a medical student held manual pressure. He was taken to the operating room emergently.

Results: Intraoperatively, the dressings were removed and 1 liter of blood was removed from the scrotum. A midline scrotal wound was noted and exploration through this opening identified the left spermatic cord remnant in the left upper scrotum. The cord was suture ligated. The scrotum was copiously irrigated and bleeding sources on the scrotal wall were cauterized. A Penrose drain was placed. The right testis was uninvolved and there was no urethral injury. Postoperatively, he was seen by psychiatry and placed on an involuntary psychiatric hold (5150). As of this writing, the patient remains admitted to the behavioral medicine inpatient unit and is being treated with clozapine, lithium, quetiapine, and hydroxyzine.

Conclusion: Self-inflicted testicular trauma can result in rapid hemorrhage necessitating emergent intervention in order to stabilize the patient. Psychiatric and social work consultation may be required in order to address underlying pathology.

Source of Funding: None
Case discussion: A 25 year old transgender male-to-female patient was on hormone replacement therapy, and became discouraged after experiencing a rapid return of masculine characteristics shortly after discontinuing her hormone therapy due to financial reasons. In her state of desperation, she decided to remove her testicles at home. After making an incision in the scrotum, she was able gain exposure to the left testicle with an intact tunica vaginalis. Being unable to finish the job, she soon passed out and her friends brought her to the emergency room for evaluation. During the course of the examination, she mentioned "I know how this looks, but it is actually one of the best things I could do for myself and my career in porn." The surgeon on-call planned to operate to replace the testicle and washout the scrotum, but she left the emergency room against medical advice with her left testicle still exposed after not being offered an urgent bilateral orchiectomy.

Risk management for the hospital notified the police who found her at home, and convinced her to go back to a different hospital, at which point the testicle was replaced within the scrotum, washed out, and had drains placed. She then returned to a third emergency room within 24 hours with both testicles exposed out of the previous scrotal incision intentionally. She again underwent washout, closure, and drain placement and was set up with a transgender medical program to assist with the surgical transformative process she desired. At appointment was set up with a transgender specialist, but the patient didn’t show up for her appointment. She was ultimately lost to follow until recently.

2 years later, she had renewed motivation to attempt a bilateral orchiectomy at home. She bought a sterile scalpel online, “took a shot of whiskey," and made a midline scrotal incision. She tied off both spermatic cords with dissolvable suture, transected both cords with a scalpel, and flushed both testicles down the toilet. The sutures fell off after 10 seconds and began hemorrhaging. Her friends brought her to the emergency room where she was found to be in hemorrhagic shock with hypotension, tachycardia, and near-syncope. She received 1 unit of packed red blood cells, was transferred to the level 1 trauma center, and taken urgently to the OR for washout, evacuation of a volleyball-sized hematoma, ligation of both spermatic cord stumps from within the scrotal incision which had brisk arterial bleeding, and drain placement. She was evaluated by psychiatry who felt no inpatient psychiatric admission was required based on her clear motivation and purposeful intent of her actions. She was discharged home on post-operative day #1 and did not follow up for drain removal.

Source of funding: None
INTERMITTENT PROJECTILE BLOOD PER PENIS: AN UNUSUAL SEQUELA OF A SKATEBOARDING ACCIDENT
David Guo M.D., Kai Dallas M.D., Catherine Harris M.D., Christopher Elliott, M.D. Ph.D., Jennifer Abidari M.D.: Santa Clara, CA
(Presentation made by Dr. Guo)

Introduction: Straddle injury resulting in bulbo-urethral disruption is common, and options for its management—primary re-alignment vs. suprapubic tube placement with delayed repair—are well known. However, massive hematuria due to a cavernosal pseudo-aneurysm and concurrent corporal-urethral fistula is a rare and dramatic complication.

Case Presentation: We present the case of a 14 year-old boy who attempted the classic “skateboard-on-a-rail” trick, resulting in straddle injury, with gross blood per meatus. A RUG in the ER demonstrated a distal bulbar injury, and primary alignment with a Foley catheter was performed. At 3 weeks from injury, a VCUG showed continued contrast extravasation in the bulbar urethra, so the Foley was replaced. At 5 weeks from injury, the patient went to the OR for suprapubic tube placement in preparation for delayed urethroplasty; intra-operative cystourethroscopy confirmed a persistent unhealed bulbar urethral disruption.

Three days after SPT placement, the patient was admitted after noting that his penis was “squirting a lot blood.” He was not bleeding when admitted, and his hematocrit was 40. The next morning, nursing reported “projectile bleeding” per urethra, which was controlled with placement of a urethral catheter; his hematocrit was 31. He remained stable for two days, and then had another massive bleed around the catheter. He also became tachycardic and hypotensive: his hematocrit was 21. After being stabilized with a blood transfusion in the ICU, he was taken to the angiography suite by Interventional Radiology.

Penile angiogram showed a branch of the right cavernosal artery that was actively extravasating into a cavernosal pseudo-aneurysm; a corporal-urethral fistula provided an exit route for the bleeding. The pseudo-aneurysm was treated with coil embolization, which effectively resolved the extravasation.

The patient was subsequently transfused two additional units of pRBC. His hematocrit had stabilized to 31 by day of discharge, and he was sent home with a suprapubic tube to gravity and a capped Foley catheter. Two weeks later, a VCUG demonstrated no further contrast extravasation per urethra, and the patient reported normal erectile function. He was discharged home without a urethral catheter, and has had no further urethral bleeds.

Comments: This unusual complication of bulbo-urethral trauma contains great imaging (retrograde urethrogram, penile angiogram) that will serve as a good anatomic review for all urologists and invite plenty of differential diagnoses.
TREATMENT OF PENILE ABSCESS AFTER PROLONGED PRIAPISM
Patrick S Kilday, MD, Polina Reyblat, MD: Los Angeles, CA
(Presentation to be made by Dr. Patrick Kilday)

Intro: As urologists treating priapism is commonplace, however, some patients are anything but common. This is the unusual story of a patient with an 11 day priapism, his eventual infection and the uncommon treatment of that infection.

Case: A 52 year old male with history of HIV, chronic hepatitis B and erectile dysfunction presented to the emergency room with fevers/chills and diarrhea. He was admitted for septic shock and HIV enteropathy, he was also noted to have a CD4 count of 148. On hospital day 11 urology was consulted for a persistent erection. The patient had a history of ED treated with intracavernosal injections of PGE1-papaverine. He last injected himself 13 days ago, 2 days prior to his hospitalization. At that time he remembered having a persistent erection, but feeling too ill to come to the hospital.

On exam his phallus was uncircumcised, erect, with significant swelling of the prepuce, smegma and a foul odor noted on retraction of the foreskin. The shaft was tender to palpation with no pus, crepitus or fluctuance. Routine priapism protocol was attempted starting with sterile aspiration of dark blood through a needle at the base of the penis and followed by phenylephrine injection. This achieved 50% detumescence and relieved his pain. Over the next three days the penis was non-tender and maintained 50-60% rigidity.

On the fourth day he had increased pain, swelling and purulent drainage from the base of the penis consistent. In the OR a 10 cm abscess pocket was present at the base of the penis, this was drained and thoroughly irrigated with an incision on each side of the phallus. The urethra was uninjured and a catheter was placed. The wounds were packed with iodoform and was changed twice a day. He was discharged home on POD 5 with oral antibiotics.

The patient was doing well with frequent clinic visits/wound checks until POD 19 when pus and necrotic tissue were seen at the base of his penis. He was taken back to the OR for further debridement. Bilateral corpora were necrotic with pus draining from the cavity. All necrotic tissue was removed and the wound was thoroughly irrigated. The patient was left with a large wound, ostensibly both corpora were completely removed as well as the corporal septum. Given the size of the wound and the perceived difficulty the patient would have with dressing changes a wound vacuum assumed closure (V.A.C.®) system was placed over the patient’s wound. He was taken back to the OR 3 days later for washout and V.A.C. change. He continued on V.A.C. therapy for two weeks and was transitioned to dry dressings. Two months after his final debridement the wound was completely healed. He now urinates without difficulty, but still has not regained any erectile function.

Conclusion: Penile abscess is a rare, but potentially morbid complication of priapism. The Immunosuppressed and patients with prolonged priapism are at increased risk for penile abscesses. A wound V.A.C. is a viable treatment for large cavities in the corpora.
THE COMPLICATIONS OF GENITAL ENLARGEMENT SURGERY

Kristi L. Hebert, MD, Eric S. Wisenbaugh, MD, Joel Gelman, MD

Introduction: The objective of penile and scrotal enlargement surgery is to lengthen and/or widen a normally developed functional penis or enlarge the testicles. These surgeries are cosmetic and promoted as a way to enhance self-esteem. However, advertisements for these procedures do not discuss the significant risks and potential complications associated with the various techniques used. We continue to see and treat patients with major complications and present our experience to date.

Methods: Eight patients presented with complications related to the subcutaneous placement of substances or implants along the penile shaft or within the scrotum. All patients had normal external genitalia prior to the enlargement surgeries, and then developed adverse changes to the tissues that included severe tissue reactions with lumpy mass formation with adherence to the penile skin and/or corporal bodies with abscess in one patient and necrotic changes in another case. Several patients had severe tethering with considerably diminished erect penile length. Most patients were completely sexually incapacitated. The patients all underwent reconstructive surgery with removal of the involved subcutaneous tissues and primary closure in all but 2 cases where skin grafting was required. Two additional patients recently presented after undergoing glans penis injections with adverse changes, but elected to not have surgery.

Results: All patients had an improved cosmetic appearance and those men who were functionally sexually incapacitated regained most of their lost length. One patient had postoperative penile skin shrinkage and then underwent successful skin grafting.

Conclusions: Penile and scrotal enhancement surgery can be associated with major disabling complications that can lead to deformity and functional compromise in men who, prior to surgery, have a normal appearance and sexual function.
An abscess involving the corpora cavernosa is rare and usually described in the setting of penile trauma, prior urologic procedure, intracavernosal injection therapy, or penile prosthesis. We present a case involving a diabetic man who was diagnosed with cavernosal abscesses in the setting of an indwelling urethral catheter and associated urethral erosion. Management included suprapubic tube placement, bilateral corporotomy for abscess drainage, and subsequent near total debridement of both corpora cavernosa.

Key Words: Corpora cavernosa, abscess, infection, debridement

Report: A 62 year old man with insulin dependent diabetes mellitus, hypertension, end-stage renal disease, and urinary retention managed with an indwelling urethral catheter was hospitalized with a diagnosis of fever and leukocytosis. Urology consultation was obtained for genital edema and possible cellulitis. Examination revealed an edematous, non-circumcised phallus. The penis was firm but non-tender. The genital skin demonstrated no tissue necrosis or erythema. The patient’s white blood cell count was 16,100. A urine culture showed no infection. Scrotal ultrasound revealed skin thickening without air, consistent with cellulitis. Antibiotic therapy with piperacillin/tazobactam was initiated. CT scan imaging of the pelvis was performed demonstrating abnormal gas within the corpora cavernosa (Figure 1). Subsequently, the patient underwent cystoscopy with suprapubic catheter insertion and bilateral corporotomy with abscess drainage. Cystoscopy identified a urethral erosion at the level of the penile urethra. The left and right corporal bodies were incised at the 3 and 9 o’clock positions with drainage of purulent material. Post-operatively, the patient was managed with twice daily dressing changes and culture directed antibiotic therapy (linezolid). Final wound cultures grew vancomycin resistant Enterococcus. He returned to the operating room one week after his first surgical procedure for near complete debridement of both corpora cavernosa. The penile skin, corpus spongiosum, and urethra were preserved as they were viable and not necrotic.

Discussion: There are few case reports relating to the development of corporal abscesses. There are reports regarding penile abscess in the setting of a urological procedure such as a priapism shunt [1,2]. These have been handled in a variety of ways. Usually simple aspiration of the corpora [2] or corporotomy have been performed with success. One study eventually required a distal penectomy due to distal penile necrosis one month following an Al Ghorab shunt with subsequent penile abscess formation [1]. One interesting study described an individual with a corporal abscess treated with endoscopic management via un-roofing of a bulbar urethral region near a corporal abscess with successful drainage and resolution of patient’s infection with antibiotics. [3]

Our report presents a unique case of urethral erosion from a chronic indwelling catheter that lead to abscess formation of the corpora cavernosa. Early surgical debridement, antibiotic therapy, and removal of the indwelling urethral catheter and urine diversion with a suprapubic catheter offered effective management in this clinical setting.

References
1 Penile gangrene with abscess formation after modified Al-ghorab shunt for idiopathic ischemic priapism.
Ford-Glanton BS¹, Patel P², Siddiqui S¹.
2 Corpus cavernosum abscess after Winter procedure performance.
Paladino JR Jr¹, Nascimento FJ, Gromatsky C, Pompeo AC.

3 Endoscopic management of emphysematous periurethral and corporal abscess Priyadarshi Ranjan, Saurabh Sudhir Chipde, Sandeep Prabhakaran, Surabhi Chipde,¹ and Rakesh Kapoor
URETHRAL FOREIGN BODY—AN UNCOMMON CAUSE OF PENILE PAIN
Andrew N. Salomon, M.D., Scott P. Cuda, M.D.: Tacoma, WA.
(Presentation to be made by Dr. Salomon)

**Purpose:** A urethral foreign body (UFB) is a rare finding in patients presenting with penile pain. It often occurs after the self-insertion of a foreign object for sexual stimulation, erectile enhancement, or attention seeking from an altered mental state such as periods of intoxication or psychiatric disturbance. This condition can be associated with urologic complications, to include: hematuria, urinary tract infections, urethral lacerations, and urethral strictures. The purpose of our study was to review the clinical presentation and management of a pediatric patient presenting with genitourinary complaints from a UFB at Madigan Army Medical Center.

**Materials and Methods:** The record of one pediatric patient with a UFB was reviewed in order to identify the key findings on history, pertinent examination features, relevant studies and imaging, and appropriate therapeutic interventions for this clinical scenario. Our patient’s clinical course was also compared to cases currently reported in the literature.

**Results:** In our case, a 12 year-old male patient with oppositional defiant disorder (ODD) and attention deficit hyperactivity disorder (ADHD) who was currently off medications presented with dysuria, hematuria, and penile pain. He believed his symptoms were from “a Lego that he lost inside his penis.” He was able to urinate without evidence of foreign body evacuation. Physical exam did not note any evidence of a foreign body. Labs were notable for hematuria and pyuria. An abdominal x-ray did not reveal a foreign body. This patient ultimately underwent a diagnostic cystoscopy under anesthesia with foreign body removal of a 6cm Star Wars Lego missile that had spanned the bladder to proximal urethra.

**Conclusions:** A UFB is a rare cause of urinary tract complaints in a child. Higher clinical suspicion should be considered in patients with psychiatric disorders. Physical exam and radiologic imaging may be non-diagnostic in assessing for this condition. Ultimately, early operative intervention with cystoscopy serves as both an effective evaluation tool and management strategy to deal with acute symptoms and prevent the long-term sequelae of this urethral trauma.

**Source of Funding:** None
HEARTBROKEN LETTERS FROM THE TIP OF THE PENIS; AN ODE TO POLYEMBOLOKOILAMANIA
Catherine J. Chen MD, Karen L. Stern MD, and Christopher E. Wolter MD: Phoenix, AZ

Introduction: Polyembolokoilamania is the insertion of foreign objects in a bodily orifice. Urethral polyembolokoilamania is a rare issue encountered by urologists when objects become dislodged. Oftentimes, patients present worsening lower urinary tracts symptoms and clinic history is difficult to obtain because of embarrassment. The delay in treatment has the potential to cause permanent urethral injury.

Methods: A 72 year old male with no history of any psychological disorders or dementia presented with worsening of his lower urinary tract symptoms with increased frequency, dysuria and decreased stream. He was told by a local ED that he had a UTI and was treated with antibiotics; however, he reports no improvement with symptoms. After careful history taking with the patient, he reported feeling frustrated having recently gone through a divorce. His wife had left him for a younger man. Because of this, he had inserted a pen into his urethra and thinks the tip of the pen may have broken off.

Results: On palpation, there is firmness at the tip of the penis, approximately 1 cm from the urethral meatus. Office cystoscopy revealed the metal tip of a pen. The patient did not tolerate an attempt to remove the object in clinic; thus, had the tip removed under anesthesia. In the operating room, cystoscopy was repeated. The patient was still able to empty his bladder because he was voiding through the tip of the pen. Using forceps, the tip was grasped and gently freed from the urethral tissue. A catheter was left in place for 3 weeks to facility healing. On follow-up, the patient reports resolution of his lower urinary tract symptoms.

Conclusions: Common reasons for polyembolokoilamania include sexual gratification, self-injurious behavior, psychosis with or without mood disturbance, depressive disorder with psychotic features, and cognitive disorders. While the immediate concern is to resolve the obstruction, the underlying reason for the polyembolokoilamania needs to be addressed in order to prevent future events.

Source of Funding: None
PHIMOSODA: THE CASE OF THE PENIS IN A BOTTLE

Patrick S. Kilday, MD*, Ashish R. Parekh, MD: Los Angeles, CA
(Presentation to be made by Dr. Patrick Kilday)

Objectives: Since man discovered genitalia he has been finding new things to place in and around his penis. As creative as the public can be with their instrumentation of the phallus, so must the urologist be creative in extricating said phallus. This is the story of an inebriated man, his soda bottle and a bone saw.

Case: A 41 year old male with no significant past medical history presented to the emergency room with pain in his penis for the last 4 hours. A thorough examination by the emergency room physician noted a plastic bottle encasing the penile shaft. The patient had significant swelling of the glans and sand between the bottle and the penis creating a plastic paraphimosis. He wasn’t sure how his penis ended up in the bottle, but did admit to alcohol, cannabis, methamphetamine and other “street” drug use over a 2 day period. The ER physician tried to use cautery to melt the bottle off of the penis, but his efforts were fruitless. The patient did not tolerate any further attempts to remove the bottle at bedside and he was therefore taken to the OR by Urology.

Methods: The patient was sedated and the penis and bottle were prepped thoroughly with Betadine. Mayo scissors were used to remove the remainder of the soft portion of the bottle, but these were not strong enough to incise the thick plastic at the bottle neck. We attempted to use bone cutters, but the plastic was not shaped appropriately. We were able to wedge a retractor between the penis and the bottle and then safely use the Stryker REM-B saw to cut through the plastic. We made a counter incision about 1 cm away and were then able to remove the plastic. While this saw is normally used for small bone procedures it was able to safely cut through the plastic without injury to the patient.

Conclusion: The patient was watched overnight and by POD 1 had significant decrease in the penile edema, his foreskin was completely intact and he was discharged home. He did not make any of his follow up appointments.
FOREIGN BODY REMOVAL FROM THE URETHRA AND BLADDER: A THROWBACK ARCADE RENDITION OF THE CLAW

Christopher J.J. Martin, M.D.; Michael L. Ritchey, M.D.; Gwen M. Grimsby, M.D.: Phoenix, AZ

Presentation to be made by Christopher J.J. Martin, M.D.

Objectives: Neodymium magnets have been manufactured as educational toys, stress relief products, and an artistic medium. Between 2009 and 2013, an estimated 3,000 emergency room visits were due to these “ball shaped, high powered magnets.” The U.S. Consumer Product Safety Commission is actively trying to ban them from the market. We, as urologists, understand why. They have been known to take many shapes and sizes including but not limited to giant cubes, spheres, cylinders … and urethras. Surely, this is the case of the latter.

Methods: A 15 year old male without a psychiatric history presented to the urology clinic for chief complaint of a foreign body in the urethra. The patient was taken to the operating room for cystoscopy and attempted removal of foreign body. Due to the size of the magnets and strong magnetic forces between them, they were difficult to remove trans-urethrally. After many attempts to the basket the foreign “bodies”, the decision was made to push the target into the bladder to be removed via a percutaneous approach. Utilizing a NephroMax™ balloon dilator and sheath, a supra-pubic percutaneous tract was established. We then re-enacted “The Claw” (made popular by many U.S. arcades) and used a three-pronged grasper to sequentially remove the foreign bodies in their entirety.

Results: The patient tolerated the procedure well. Final inspection of the foreign bodies revealed 30 consecutive ball-shaped, high powered magnets. The patient was discharged home the same day. His Foley catheter was removed 5 days later. At 6 weeks follow up, the patient was found to be doing clinically well with a normal bell-curve uro-flow. The patient will think twice before inserting so many attractive beads into his urethra.

Discussion: While this is a rare presentation, it is important for the practicing urologist to recognize the creativity of a subset of patients. Moreover, cases of self-introduced foreign bodies in children may be difficult to treat because of the limitations in equipment sizes. We present a novel percutaneous approach (aka “The Claw”) for removal of intra-vesical foreign bodies.

Source of Funding: None
THE SAGA OF THE BUCKYBALL BOY: HOW MANY BUCKYBALLS DOES IT TAKE TO CAUSE BLADDER OBSTRUCTION?

Joshua D. Chamberlin, MD, Irene M. McAleer, MD, JD, MBA, Orange, CA

(Presentation to be made by Dr Joshua Chamberlin)

Introduction: Buckyballs, small strongly magnetic neodymium balls, officially recalled in 2014 after children, thinking they were candy, swallowed them causing bowel perforations and death in some cases. Buckyballs and other similar small magnets have also been placed into the urethra and bladder for a variety of poorly recalled reasons. Many of these magnets can be retrieved endoscopically. We present a case where this was not really possible.

Methods: A 16-year-old boy placed an unknown number of Buckyball magnets in his urethra. He placed them one at a time because “they felt good.” He managed to get in a “few” but was sure it was “less than fifty.” Unfortunately, although they felt good, he could not get them out. Because he was embarrassed, he did not tell anyone until he developed gross hematuria, urinary frequency, and dysuria … one year later. He presented to our institution once he developed perineal pain. Only then, did he tell his parents….

Results: Evaluation included ultrasound and KUB, urine culture (growing Staph aureus) and urinalysis. The KUB showed a large number of metal spheres in urethra and bladder and a large bladder stone. The ultrasound also showed the same findings. Surgical exploration included endoscopic and open techniques, removing a 5.5 x 5.0 x 3.5 cm bladder stone and 35 encrusted metallic spheres. The balls were encrusted and embedded snugly in the posterior urethra. The stone analysis showed struvite (80%) and carbonate apatite (20%).

The patient had a suprapubic tube placed which was removed two weeks after removal of the Buckyballs and bladder stone and after no leakage or any addition foreign bodies were found on VCU. Six month follow-up uroflow studies were recommended, but the boy never returned.

Conclusion: Buckyballs were recalled after life-threatening ingestion injuries occurred. There are also reports that these little magnets have been placed in the rectum, vagina, ear as well as the urinary tract. Many of these magnetic balls placed in the urethra or vagina may be removed endoscopically, if brought to the attention of physicians before they mineralize or cause massive stone formation. Our patient, however, waited over a year to tell his family and seek medical attention, late on a Friday evening. It is likely that he will return with some new urethral complaint, most likely late, and probably on a Friday evening.

Funding: Definitely no industry support
Objectives: This is the story of a 55-year-old male who presented to the ER with bilateral hydronephrosis, acute renal failure, and sepsis from a urinary source secondary to a foreign body in the bladder. Urology consulted for management of the foreign body in the bladder and bilateral hydronephrosis.

Methods: The patient has an extensive urologic history. He had a necrotizing genital infection years ago that led to an extensive genital reconstruction that required split thickness skin graft and thigh pouches for the testicles. He developed a urethrocutaneous fistula and a dense proximal urethral stricture. He underwent a perineal urethrostomy in 2012 and was lost to urologic follow up. His foreign body history is significant. In 2011 and 2012, he underwent open cystolithotomies for foreign body removal. Most recently he was admitted in 2016 for a retained rectal and urethral foreign body. During this admission, the patient placed a dinner fork with the tines bent at 90 degrees into the urethra because he “had a scratch he needed to itch.” In his rectum, he placed a wine glass, which broke off. He then underwent an exploratory laparotomy, sigmoidectomy, and removal of the fork stuck in his bladder neck. He presented to our institution with urosepsis, bilateral flank pain, and concern for a foreign body in the bladder.

Results: A CT scan was obtained showing moderate bilateral hydronephrosis, a creatinine of 4.7 ng/dl, and what appeared to be a shot glass in the bladder. The patient was brought to the operating room and underwent a cystoscopy through the perineal urethrostomy confirming a shot glass present in the bladder. It was evident that transurethral removal of the shot glass would not be possible. A lower midline incision was made. The bladder was entered. The shot glass was filled with toilet paper and the bladder was filled with purulent fluid. The shot glass was removed intact, the bladder irrigated and closed. A suprapubic catheter was placed.

Conclusions: The 1.5 oz shot glass was placed through the capacious perineal urethrostomy. The patient’s hydronephrosis and acute renal failure improved dramatically and he was discharged home on POD 8. Psychiatry was consulted and provided recommendations. The patient feels he will continue with his urethral sounding practices despite the many invasive interventions. We stressed the importance of using safe alternatives, such as ice cubes.

Source of Funding: None
SMALL BOWEL OBSTRUCTION: A UROLOGIC TALE

Michael Lam, M.D., Kamran Sajadi, M.D.

(Presentation to be made by Dr. Lam)

Objectives: Here we review the differential of small bowel obstruction.

Methods: 83 year-old female with history of chronic urinary retention, idiopathic end-stage bladder, and bilateral ureteral obstruction with a thickened bladder wall who is managed with chronic indwelling catheter and bilateral ureteral stents. She underwent uneventful bilateral ureteral stent and catheter exchange, however on POD#1 noted worsening greenish discharge from her Foley catheter. Her daughter attempted to irrigate the catheter without much success, and she subsequently replaced it. Over the next 24 hours she developed nausea, vomiting, and abdominal pain, and subsequently presented to the Emergency Room.

Results: On exam the patient had a diffusely tender and distended abdomen. Her catheter was gently irrigated with return of multiple pieces of feculent material. A CT “cystogram” with contrast instilled through the Foley catheter was performed (see below). Her daughter had placed her catheter into her jejunum, and the balloon was causing a functional small bowel obstruction. Upon discovery of this, further questioning revealed that the patient has had intermittent debris from her catheter for several weeks, likely indicating a chronic fistula. She was taken to the operating room for exploratory laparotomy with takedown of vesicointestinal fistula, small bowel resection with stapled anastomosis, and repair of bladder perforation.

Conclusions: 1. Keep an open urologic mind when evaluating a patient with potential bowel obstruction. 2. Be careful where you stick Foley catheters.
TO BE BENIGN OR NOT TO BE BENIGN – THE STORY OF THE BLADDER TUMOR THAT WILL NOT GIVE UP
Karen L. Stern MD, Paul E. Andrews MD: Phoenix, AZ
Presentation to be made by Dr. Karen Stern

Objectives: Postoperative spindle cell nodule of the bladder was first described in 1984. This rare, benign nodule consisting of a reactive proliferation of spindle cells occurs after bladder instrumentation such as a transurethral resection of bladder tumor or bladder biopsy. Only 21 cases have been described in the literature, with no recurrences reported — until now. This case describes the first reported case of a recurrent postoperative spindle cell nodule of the bladder.

Methods: A 72 year-old male with a history of both bladder and prostate cancer presented with ongoing gross hematuria. Briefly, the patient has a history of Gleason 9 prostate cancer status post prostatectomy in 2012 with a biochemical recurrence soon after. He is currently on androgen deprivation therapy and his PSA is undetectable. He was diagnosed in high grade non-invasive urothelial carcinoma in 2014 and underwent two courses of induction BCG. On surveillance imaging in February 2016 he was found to have a 7.5 millimeter right bladder wall mass. He went to the operating room on March 15, 2016 for a transurethral resection of the bladder tumor. The pathology came back as a postoperative spindle cell nodule. His postoperative course was unremarkable…for about 2 weeks.

For 14 days his urine was crystal clear. He then began frequently calling in reporting gross hematuria and for the next month he described intermittent clots in the face of several negative urine cultures. Just a mere 6 weeks after his resection he was seen in the Emergency Department for hypotension. His hemoglobin was 8.7 g/dL from a baseline of 14.6 g/dL. Cross sectional imaging revealed a rapidly growing mass, larger than 3 centimeters, in the same spot as the resection of the benign spindle cell nodule. He was taken to the operating room for a transurethral resection and the large mass seen emanating from the right side of the bladder was fully resected.

The patient, fearing the worst case scenario of a prior missed diagnosis of malignancy, was elated to hear that the pathology was once again postoperative spindle cell nodule. His Urology team was elated yet perplexed. That emotion was confounded when the patient only went a measly 12 days before his gross hematuria returned. Cross sectional imaging exactly one month after his resection revealed the tumor was back and bigger than ever.

Results: The final outcome of this man’s ever recurring tumor is still to be determined. He is currently scheduled for a cystectomy with ileal conduit urinary diversion. In the meantime, he continues to bleed.

Conclusions: Postoperative spindle cell nodule is a rare, benign bladder tumor that can clearly act far from benign.

Source of Funding: None
UTILIZATION OF MEDMEASURE!, A SMARTPHONE-BASED APP, AS A RELIABLE METHOD FOR ENDOSCOPIC MEASUREMENTS
Samuel L. Washington III, MD, Maurice M. Garcia, MD, MAS: San Francisco, CA
(Presentation to be made by Dr. Samuel Washington)

Introduction: Endoscopic procedures are ubiquitous amongst urology practices across the world. A reliable evaluation of the size of the stone or tumor evaluated during an endoscopic procedure can significantly alter management. Many urologist will report the size of the stone or tumor without objective measurement. To our knowledge a standardized, reliable method for measurement in endoscopic cases has yet to be developed. We describe utilization of an iOS smartphone-based application, MedMeasure! for objective measurements during endoscopy.

Methods: We conducted an ex-vivo experiment using an Olympus cystoscope with a 30-degree lens to simulate a standard endoscopic procedure. We then visualized a reference item of known diameter (quarter and nickel) and a target object (ruler) in the same field of view. We describe the reference and target objects in several configurations based upon their position to each other and relative distance to the cystoscope. Nomenclature used as follows: A-P, both objects are perpendicular to the cystoscope; Angled, objects parallel to one another and tilted away from scope; Askew, objects at different angles relative to scope; Equidistant, same distance from cystoscope; Offset, objects at unequal distances from scope; Foreground, one object closer to scope than the other. For each configuration a picture was taken of the image on the monitor using an iPhone camera. MedMeasure! was used to then measure the width of the target object. We calculated the difference between the measured and known diameter of the target object in each configuration. We then derived the percentage distortion between measured and known values by dividing the previously calculated differences by the known diameter. Box plot graphs was used to illustrate the inter-observer variation as well as the extent of distortion of the target image.

Results: The reference objects used were items whose diameters are well-known and standardized, a quarter, 24.3mm, and a nickel, 21.21mm. The target object of interest was a ruler with a width of 4cm. Distortion was the least when both objects were equidistant, either A-P (12-14% distortion) or askew (6-30%) (p>0.05 for both). The distortion increased significantly when offset or at different distances from the scope (p<0.001 for all).

Conclusions: Using a smartphone-based app, MedMeasure!, we demonstrate that accurate measurements can be made during endoscopic procedures using a readily available reference object with the target at the same distance from the cystoscope. Distortion increases significantly when objects are askew or at different distances from the cystoscope.

Source of Funding: None
THE CASE OF THE CADILLAC RALP

He presented with T1c, Gleason 3+4, PSA 6 disease. While his intermediate risk disease, minimal LUTS, and good erections seemed normal, he did have not have normal anatomy.

As it turns out, this patient was also the altruistic type, and when undergoing a work up for kidney donation, was found to have a duplicated collecting system to the level of the iliacs and a large right sided simple cyst measuring ~17cm. This resulted in a displaced right kidney down towards the pelvis.

So the game plan was simple: Start with lap approach, simple cyst decortication and drainage to allow the kidney to release up and out of the pelvis, and then proceed with RALP.

This plan was working to a tee. Drained ~800cc out of the cyst. Decorticated and fulgurated the cyst wall easily. The kidney was on less tension, like we hoped, and once we switched him to Trendelenburg position, fell easily out of harms way.

On with the prostatectomy. The resident had the obligatory bladder takedown, which was, of course, too slow, not putting enough tension on the tissues, and then using too much tension and tearing tissue, you know, the usual. The pre-prostatic fat and endopelvic fasciae were groomed in standard, awkward fashion. The DVC was taken with a stitch, tied, and hemostasis achieved. At this point, it was time for the resident to sleep while the attending performs ‘all key portions’ of the case…

Until the bladder neck was entered. An unplanned gush of fluid and the opening of a tubular structure was seen on the right. The resident was awoken from his slumber, wipes drool from his face, and says, “I’m sorry, can you show me again, I missed it.” “Is… is that the an ectopic ureter?” Images were then re-reviewed. “Alas, there is a tiny blush of contrast seen in the prostate!” By the way, “Can you please press record?”

So what to do now? Two ureters are seen within the bladder, and one now below the bladder neck. After discussion, we then perforated into the bladder, mobilized the ureteral mucosa and affixed the neohiatus to the bladder floor with stent placement (shown in short video).

So in the end, the ‘Cadillac RALP’ was performed: Cyst drainage and decortication, radical prostatectomy, PLND, with (Oops!) right ureteral implant. In follow up, his stent was removed at 6 weeks and he had a normal US at 3 months. PSA remains undetectable with excellent continence and erections a work in progress.
VESECHO TRAINING SYSTEM: SUPRAPUBIC CATHETERIZATION UNDER ULTRASOUND GUIDANCE
Roland Palvolgyi, MD, Aaron Lee, BS*, Francisco Ramirez*, Blythe Durbin-Johnson, PhD*, Jennifer G. Rothschild MD, MA, MPH, Jennifer H. Yang, MD: Sacramento, CA
(Presentation to be made by Dr. Roland Palvolgyi)

Objectives: Suprapubic catheterization (SPC) is a fundamental skill for urology residents and trainees. Traditionally, this procedure is performed by blind percutaneous insertion of a wide-bore trocar. With ultrasound technology, SPC is now commonly performed under imaging guidance and minimizes complications such as bowel injury. The British Association of Urological Surgeons recommends use of ultrasound for SPC whenever possible. However, opportunities to learn and practice SPC often happen in emergent settings and are not ideal for patient care. Several SPC models have been created for training purposes, but none of these are ultrasound compatible. We developed a novel, cost-effective, and sonographically accurate training model for SPC and tested it through an ultrasound-focused practical skills course designed for resident education.

Methods: The model consists of 4 essential components: bladder, pelvic bone, and rectus fascia all housed within an ultrasound compatible gelatin mold. We utilized a viscous mixture composed of gelatin, psyllium fiber, and water, allowing for penetration of ultrasound waves while mimicking the consistency of skin and subcutaneous tissue. We used a condom filled balloon for the bladder and bag-valve masks for rectus fascia, which simulates the tactile resistance during needle placement without disrupting the ultrasound image. The model was tested during a resident training course. The curriculum discussed indications for SPC, fundamentals of ultrasound, probe selection, patient positioning, and image interpretation. We used the Chiou Suprapubic Introducer Kit (Cook Medical) which incorporates the Seldinger technique and provides an 18 gauge spinal needle that can be used in conjunction with a curvilinear ultrasound probe. Surveys were administered to 13 participating urology residents, assessing the model’s anatomic and sonographic realism. Pre- and post-training questionnaires evaluated comfort with ultrasound guidance, image interpretation, and SPC technique. Each question response was recorded on a scale of 1 to 5 (total scores calculated for multiple questions) and results were stratified into 2 groups by training level (junior and senior residents). Distribution of scores for baseline skill was compared using Fisher’s Exact Test. Sums of scores between training level were compared using two-sample t-tests, and changes in scores after the training course were compared using paired t-tests.

Results: Prior to training, all junior residents (n=4) performed SPC less than 5 times, but all were done under ultrasound. All senior residents performed SPC at least 5 times, but only 22% were done with ultrasound. There was no difference in baseline comfort with ultrasound imaging between junior and senior residents. However, senior residents reported higher comfort (6.7/10) with the SPC procedure itself compared with junior residents (3.2/10) (p=0.029). After training, mean scores (out of 25) for overall comfort with ultrasound-guided SPC significantly increased for all residents (14.6→19.7, 5.1 point change, p <0.001). This remained significant when separating junior residents (11.2→18.5, 6.8 point change, p=0.026) and senior residents (16.1→20.4, 4.3 point increase, p=0.006). The model received a mean score of 4.2 (SD 0.6, range 3-5) for anatomical realism and 4.4 for sonographic realism (SD 0.5, range 4-5). No difference in realism was seen between junior and senior residents. The value of the simulator as training tool was rated 4.7 and the overall value of the training course was rated 5, suggesting very high satisfaction.

Conclusions: Ultrasound-guided SPC is vital in the contemporary era of procedures done under imaging guidance. Our novel training system received positive evaluations from urology residents and increased their comfort with the procedure. Stratification by training level reflects our growing emphasis of ultrasound imaging at our institution, especially within the last 3 years. This training system can be easily integrated into any urology educational curriculum to enhance resident education of SPC.
A NOVEL METHOD TO IMPROVE EVACUATION OF BLOOD CLOTS BY ENLARGING THE OPENINGS OF FOLEY CATHETER

By: Cu Phan M.D., Janet Kim B.S., Stephanie Johng B.A., Dominic Tran Nguyen B.S.

Newport Beach, California

**Introduction:** Urinary clot retention is a common situation that urologists have to deal with. The incidence is on the rise, as more people have drug eluted cardiac stents and have to be on dual anti-platelet therapy. Additionally, the use of new anticoagulation medications that do not yet have reversal agents further complicates things by causing patients and health care professionals to wait until their effects wear off. Traditionally, urologists have to put in a three way Foley catheter to irrigate out the blood clots. However, we have encountered cases in which even 24 French or 26 French 3 way catheters were still unable to evacuate the clots out. Using a larger sized Foley catheter can cause increased pain and discomfort, and can also increase the risk of urethral stricture. There are specially designed hematuria catheters to help with the drainage of blood clots, but those catheters are usually either stiff or uncomfortable for the patient, and may not be readily available. We present our novel method of enlarging the size of the openings of the Foley catheter to improve the evacuation of blood clots.

**Material and method:** We used a regular, soft, readily available 22 French 30 cc balloon 3 way Foley catheter, and a small pair of scissors. The pair of scissors can be any kind of scissors but most readily available from a suture removal kit. Using sterile technique, the openings of the Foley catheter were then carefully enlarged using the pair of scissors to remove a rim about 2 mm of the wall of the catheter around the openings of the Foley catheter, thus enlarging the openings. By using this method, we were able to evacuate thick and severe blood clots for 12 patients in whom regular 3-way- 24 French Foley have failed. Nurses were also able to irrigate our modified catheters easily. The patients tolerated these relatively small sized catheters well. There were no complications.

**Conclusion:** Our novel technique of enlarging the size of the openings of the Foley catheter has helped evacuate severe clot urinary retention and helped keep the patient as comfortable as possible. In this urologic condition, the size does matter. However, it is not the size of the shaft but the size of the openings!!
Introdution: Many different endoscopic techniques for ureterocele puncture have been described in the past, including use of laser or bugbee with one large incision or many small holes. Puncture techniques risk potential perforation through the back wall of the bladder with potential for intraperitoneal complications. Here we aim to describe the novel scissor ureterocele unroofing endoscopic (SUuRE) technique.

Methods and Objectives: We retrospectively reviewed the medical charts of 6 patients who underwent endoscopic scissor ureterocele unroofing from 6/2014 to 8/2015. Data collected included patient’s age, sex, presence/absence of UTI’s, grade of hydronephrosis before and after unroofing, and presence/absence of vesicoureteral reflux before and after unroofing.

Under general anesthesia the patients are placed in dorsal lithotomy position. The 9.5Fr pediatric cystoscope is inserted and the ureterocele is identified. If the opening to the ureterocele is readily identified the scissors are inserted through a 4Fr working port and used to splay the ureterocele open. If the opening to the ureterocele is not readily identified a bugbee electrode is used to puncture the distal wall along the inferior aspect. The bugbee is then exchanged for the endoscopic scissors which are then used to open the dome of the ureterocele.

Results: The SUuRE technique was performed at a median age of 3 months (mean = 7.5 months). Five (83.3%) patients presented with prenatal detection of hydronephrosis and ureterocele, 1 (16.7%) patient presented with a febrile UTI. All patients were born full term and were maintained on antibiotic prophylaxis through surgery. Additionally, all patients were female and had duplex system ectopic ureteroceles. Five (83.3%) patients had ipsilateral upper pole hydronephrosis (grade 2-4) preoperatively. Three (50%) patients presented with VUR into the ipsilateral lower pole moiety preoperatively.

All patients showed decompression of the ureterocele on postoperative ultrasound. Four patients showed improved or resolved hydronephrosis of the ipsilateral upper pole and 1 patient had stable hydronephrosis. One patient’s postoperative ultrasound is pending. No perioperative complications have been noted.

Conclusions: Ureterocele puncture can be in many forms, the SUuRE technique allows for successful ureterocele decompression in 100% of the cases studied with no surgical complications described.
ACUTE BLADDER NECROSIS AFTER PELVIC ARTERIAL EMBOLIZATION FOR PELVIC TRAUMA: LESSONS LEARNED FROM TWO CASES OF IMMEDIATE POST-EMBOLIZATION BLADDER NECROSIS

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[Presentation by Dr. Samuel L. Washington III]

Introduction: After significant pelvic trauma, multiple interventions aimed at obtaining vascular control can be utilized including pelvic packing and, in select cases, embolization of bleeding vessels. Embolization of pelvic arteries continues to be the mainstay of treatment for uncontrolled hemorrhage in critically ill patients secondary to pelvic bleeding. Previous studies have reported the efficacy and safety of pelvic artery embolization, with noted known potential sequelae such as impotence, gluteal muscle necrosis and bladder necrosis. Bladder necrosis is a result of embolization of the internal iliac or hypogastric arteries, unilateral or bilateral, with necrosis typically identified several weeks after the initial injury. Various cases of subacute bladder necrosis after embolization have been reported in the literature, typically four weeks after embolization.

Methods: We report two cases of acute bladder injury with bladder neck necrosis identified during the initial operative evaluation and within the early post-procedural period in patients with significant pelvic trauma requiring pelvic vascular embolization. To our knowledge this the first report of bladder neck necrosis found either during the initial intraoperative surgical evaluation or the early postoperative setting.

Results: One patient underwent a simple cystectomy with ligation of the bilateral ureters and percutaneous nephrostomy tubes placed bilaterally for urinary diversion. He subsequently underwent creation of an ileal conduit 7 months after his initial injury. The second patient had temporary bilateral nephrostomy tubes placed while recovering. He is now doing well with a functional bladder and is free of nephrostomy tubes.

Conclusions: Bilateral internal iliac artery embolization may lead to bladder necrosis however this life-saving procedure is necessary following catastrophic pelvic trauma. These cases highlight the need to monitor the urinary tract following embolization and counsel patients on the associated risks. Management following post-embolization bladder necrosis is dependent on patient stability and degree of necrosis.

Source of Funding: None
Introduction: Varicoceles are a common entity, affecting 15-20% of men. Ruptures of varicoceles have been described as a result of blunt trauma, but spontaneous rupture is a rare phenomenon.

Case Presentation: We report the case of a 21-year old gentleman who presented to our emergency room with acute swelling and pain of the scrotum. He was at an outdoor concert with friends, when his scrotum suddenly began to swell and became acutely painful. He had received no trauma to the scrotum; he had only engaged in some rigorous country dancing at the concert. Pertinent history was simply a grade II left-sided varicocele that was diagnosed at age 14, which been asymptomatic.

Clinical examination showed a left hemi-scrotum that was swollen to the size of a grapefruit, with mild purplish discoloration. Scrotal ultrasound showed a large heterogeneous fluid collection displacing the intact left testicle and extending into the inguinal canal. The Doppler tracings were within normal limits for both testicles, but there was slightly diminished vascular flow to the left testicle.

Due to increasing discomfort and potential for testicular compromise, scrotal exploration was performed. After incising past the Dartos, cremasteric and spermatic fascial layers, about 200 mL of clotted blood encountered and evacuated. The tunica vaginalis was incised and the testis was delivered. No active bleeding was found in the pampiniform plexus; intraoperative Doppler showed good vascular flow. The tunica vaginalis was closed, except for the portion in continuity with the hematoma. A Penrose drain was placed, and the Dartos and skin layers were closed.

The patient tolerated the procedure well. The Penrose drain was removed and he was discharged on post-operative day 2; besides residual swelling, he was doing well at post-operative visit a week out. After five months, the incision had healed, the swelling had resolved, and he had a residual grade II left varicocele. He ultimately underwent left varicocelectomy approximately 2 years from this incident.

Comments: Spontaneous rupture of varicocele is rare, with only three other case reports in the literature to our knowledge. The other case reports show a similar demographic (young men in their second or third decade), and management has included observation, immediate scrotal exploration, and concurrent vs. delayed repair of varicocele. Given the prevalence of varicoceles, we hope this case will assist with the accurate recognition of this unusual complication, and invite further discussion regarding its proper management.
Objectives: The AirSeal System ® (SurgiQuest, Inc., Milford, CT) is a valveless pressure barrier insufflator with proven ability to maintain pneumoperitoneum pressure with little variation. In a randomized trial, its use was associated with a rate of 26% subcutaneous emphysema (SE) compared to 6% with a standard insufflator. However, the authors noted the SE was not clinically relevant. We present three robotic cases in which the severity of the SE with use of the AirSeal system resulted in alteration of clinical management.

Methods: A single 12mm AirSeal trocar was used as an assistant port along with four 8mm robotic trocars and an additional 5 mm assistant port. Pneumoperitoneum was established with Veress needle access. CO₂ gas flow rates were set at 40 L/min with a pressure of 15 mm Hg. Pneumoperitoneum pressure was maintained at 15 mm Hg for the remainder of the cases, unless increased to 20 mm Hg for periods of increased bleeding. A retrospectively review was performed to evaluate records for documentation of clinically significant SE, defined as impacting the patient's postoperative recovery and / or resulting in additional testing or procedures.

Results: The AirSeal system was used by multiple surgeons in 328 non-consecutive robotic and laparoscopic surgery cases over period of 1-year period at Mayo Clinic Arizona. Two patients who underwent robot assisted bilateral retroperitoneal lymph node dissection had clinically significant subcutaneous emphysema. Surgical position for both was dorsal lithotomy and Trendelenburg. Patient one was a 22-year old male with BMI 21.3 mg/kg² who became hemodynamically unstable with respiratory distress and low urine output on postoperative day (POD) three. An ultrasound based bladder scanner repeatedly demonstrated bladder volume of 0 ml, yet he had 450 ml in his bladder on Foley catheter placement. CT revealed severe abdominal and thoracic SE that remained present on repeat CT on POD thirteen. In this case, false bladder scans lead us to fluid bolus the patient potentially worsening his pulmonary status. The second patient, a 29-year old male with BMI of 27 mg/kg², was discharged on POD one and called the following day with unilateral leg swelling. In the emergency department the ultrasound technologist was unable to evaluate the lower extremity vasculature due to SE so CT scan with intravenous contrast was performed. This was negative for venous thrombosis but notable for extensive subcutaneous air extending from the inguinal ligament to the level of the left knee. The change in clinical management was the addition of two imaging studies. A third female patient age 71 and BMI 17.7mg/kg² underwent robotic cystectomy and was unable to open her eyes until POD two due to severe facial SE. She was also incidentally found to have bilateral apical pneumothorax of 3.7 cm in size. Her ability to ambulate on POD one was inhibited by the inability to see. No technical issues with port placement or port migration were detected intraoperatively in any of the included cases.

Conclusions: Though uncommon, the AirSeal Insufflation System can result in severe subcutaneous emphysema. Severe subcutaneous emphysema can interfere with ultrasound based diagnostic testing and therefor alter postoperative clinical management.
RETRIEVAL OF RECESSED DOUBLE J STENTS WITH A STANDARD PULMONARY SINGLE USE BIOPSY FORCEPS UNDER FLUOROSCOPIC CONTROL

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Introduction: This trick was previously reported here after only 2 patients. It is re-offered here to the judges after a third successful patient experience.

Case Report #1: a 47 y.o. 5’ 3” female with a BMI of 30, diabetes, hypertension, and rheumatoid arthritis treated with Methotrexate and Prednisone presented with a 1.5 cm coin shaped stone in the renal pelvis. After a retrograde pyelogram showed distal ureteral atresia/adult megaureter, a #6 22 cm double J stent was placed preparatory to ureteroscopy and electrohydraulic lithotripsy in one week. Alas, when that day came, the double J was not to be seen. It had retreated 3 cm above the atretic ureter into the megaureter. Strenuous efforts over an hour’s time with a stone basket were not successful. A second double J was placed to dilate the atretic distal ureter and encourage the errant double J to protrude again.

She returned in 2 weeks eager to get rid of her stone and surplus double J. The kidney was painful. Another 15 minutes with the stone basket did not yield engagement. Earlier in the week, a surgical tech’ had suggested the Boston Scientific Radial Jaw #4 Pulmonary Standard Capacity Single Use Biopsy Forceps used by our pulmonary specialist. This was sent up the ureteral access sheath beside a glide wire that had been threaded into the distal coil of the double J. With the fluorescent scope on mag,’ the jaws of the pulmonary biopsy forceps could be seen and directed at the double J. The glidewire in the double J offered enough resistance so that the open jaws could be pushed against it. The jaws were closed and held the double J firmly enough to pull it out along with the ureteral access sheath and glide wire.

Case #2: a 48 y.o. (BMI 31) Asian had had a vaginal hysterectomy punctuated by an inadvertent ureterotomy with consequent leak of urine into the operative site. Urology placed a double J. This dried the operative field. Three weeks later she returned for removal of the double J. But, it had retracted into the ureter as in case #1. It was retrieved with the pulmonary forceps under fluoroscopic control, no glide wire necessary.

Case #3 a 62 y.o. untreated bipolar female with one law suit going regarding mesh repair presented with tremendous flank pain two weeks after a pyelolithotomy for a calcium oxalate monohydrate (grey/black) impervious to electrohydraulic lithotripsy at the highest setting. Upon cystoscopy for a change of the double J, no double J was seen. Flouroscopy showed that the double J was coiled half way up the ureter. The stone basket could not engage it and so the pulmonary biopsy forceps were sent for. The double J was grasped at the first try under fluoroscopy with mag’.

Conclusion: A pulmonary biopsy forceps through a ureteral access sheath and on fluoroscopy is far more effective than a stone basket + ureteroscopy for the recapture of an errant, double J. The trick is worthy of a prize.
SYMPTOMATIC URINARY OBSTRUCTION: AN UNUSUAL PRESENTATION OF SCEDOSPORIUM APIOSPERMUM INFECTION

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(Presentation to be made by Dr. Dimitar Zlatev)

Introduction: Scedosporium apiospermum is an opportunistic fungal pathogen that can have an aggressive course in immunocompromised hosts. There are no reports in the literature of symptomatic urinary obstruction due to Scedosporium infection requiring surgical intervention or of kidney tissue infection due to Scedosporium requiring nephrectomy.

Case Description: A 27-year-old male on multi-agent chemotherapy for acute lymphoblastic leukemia (ALL) presented with 2 weeks of right flank pain associated with nausea. A CT scan demonstrated moderate right hydroureteronephrosis due to an obstruction at the right ureterovesical junction. No obstructing stone or lesion was seen. An ultrasound depicted echogenic soft tissue at the right ureterovesical junction and the right ureteral jet was not visualized. His flank pain worsened and serum creatinine increased to 1.3 (baseline 0.8). He was taken to the OR for deobstruction and on endoscopy white sediment was observed crowning from the right ureteral orifice and the distal right ureter was full of soft white sediment, which was removed and sent for culture and pathology. A ureteral stent was placed. Post-operatively his pain resolved and creatinine normalized. Culture of the sediment revealed fungal elements and subsequent evaluation with PCR resulted Scedosporium apiospermum. He was started on Voriconazole.

Follow-up to ensure resolution of infection included urine cultures and radiographic studies with ultrasonography and CT imaging. Although cultures were negative, a 3 cm complex cystic collection in the inferior pole of the right kidney was noted on imaging. A diagnostic ureteroscopy and pyeloscopy revealed yellow debris in the lower pole that again grew Scedosporium apiospermum. He was continued on Voriconazole and maintained on chemotherapy. Although he was found to be in remission from ALL, surveillance CT scans in preparation for bone marrow transplant showed that despite a 2-month treatment with appropriate anti-fungal therapy there was an interval near doubling in size of the right kidney soft tissue mass. As he would be deeply immunosuppressed after a bone marrow transplant and any residual fungal infection would be more challenging to manage, surgical excision of the mass was considered. Consensus was that radical nephrectomy was the more definitive option, as a partial nephrectomy risked leaving infected tissue behind or spreading the infection on opening of Gerota's fascia. He thus underwent laparoscopic right radical nephrectomy. The infection appeared to be contained within Gerota's fascia. On the back table, the kidney was bivalved and revealed a mixture of purulent and necrotic material, with very abnormal appearing kidney parenchyma. Final pathology returned necrotizing granulomatous inflammation with fungal elements. The patient subsequently underwent bone marrow transplant without complication.

Discussion: Scedosporium apiospermum is an opportunistic fungal pathogen that rarely affects the urinary tract. We report the first ever published case of a Scedosporium infection of the kidney causing symptomatic urinary obstruction and subsequently a kidney lesion that was not responsive to a long course of antifungal therapy and required surgical excision. As surveillance with urine cultures is nonspecific, radiographic follow-up after urinary deobstruction is essential to ensure resolution of infection. Although medical treatment with antifungals is the established primary treatment modality of soft tissue fungal infections, surgical excision in immunocompromised hosts should be considered for Scedosporium infections refractory to medical treatment.

Source of Funding: None
Ureteral duplication is a common congenital abnormality but is uncommonly diagnosed in adults. We report a case of an adult with complete ureteral duplication and chronic pyelonephritis managed with a robotic assisted heminephrectomy and the Endowrist® One™ Vessel Sealer.

**Keywords:** Ureteral duplication – Robotics – Heminephrectomy - Vessel Sealer

**Report:** A 20 year old previously healthy woman was hospitalized for left flank pain and a fever. Physical examination revealed tenderness over the left flank but was otherwise normal. Her serum white blood cell count was elevated at 14,300 and a urinalysis suggested an infection. Computed tomography (CT) imaging demonstrated left pyelonephritis and revealed a duplicated left renal collecting system, moderate hydronephrosis of the upper pole moiety, and an ectopic ureteral insertion into the proximal urethra or vagina. The patient was managed with antibiotics and improved. Follow-up CT imaging and laboratory studies demonstrated resolution of acute pyelonephritis. A dimercaptosuccinic acid furosemide renogram was completed showing left ureteral duplication with a poorly functioning upper pole moiety. Definitive surgical management was completed and included a cystoscopy followed by a transperitoneal robotic assisted upper pole heminephrectomy using the da Vinci® Si™ System. Cystoscopy confirmed insertion of the upper pole ureter into the urethra proximal to the muscular sphincter. The upper pole heminephrectomy was initiated in a similar fashion previously described by others [1]. Complete ureteral duplication was confirmed during robotic heminephrectomy. After identifying and ligating the vasculature to the upper pole moiety, the Endowrist® One™ Vessel Sealer and Harmonic ACE® curved shears were utilized to separate the upper pole moiety from the remainder of the kidney. Total operative time was 236 minutes and estimated blood loss was 50 ml. Microscopic examination of the surgical specimen revealed acute and chronic interstitial nephritis with foci of abscesses. The patient was discharged home on the second post operative day and there were no post-operative complications. Two months after surgery, the patient is doing well with resolution of symptoms, no further infections, and preservation of renal function.

**Discussion:** Ureteral duplication is estimated to occur in approximately 1% of the population and is more commonly diagnosed in females. The majority of ectopic ureters are detected through prenatal ultrasound imaging, though these may be missed if the upper moiety lacks dilation. Patients not diagnosed prenatally may later present with a UTI, though a patient’s urine culture may be negative due to the infected system’s aberrant insertion site away from the bladder [2].

When ureteral duplication is diagnosed in an adult, consideration should be given to intervention in order to prevent complications such as infection and pain. Treatment for a non-functioning upper pole renal moiety is usually a heminephrectomy. Robotic assisted laparoscopy is useful in completing the heminephrectomy and successful cases have been previously reported [1, 3].

Robotic surgery is associated with rapid advancements. The Endowrist® One™ Vessel Sealer is a fully wristed vessel sealing and cutting instrument. It is reported to cut and seal vessels that are 7 mm in diameter as well as tissue that fits within its jaws. Furthermore, it is associated with only 1-2 mm of lateral thermal spread which theoretically results in less damage to surrounding tissues [4]. We found the Endowrist® One™ Vessel Sealer helpful in safely separating the non-functional upper pole renal moiety from the functional portion of the kidney that was preserved. Furthermore, it helped to decrease blood loss with the operation. To our knowledge, this is first report of using the Endowrist® One™ Vessel Sealer in this type of clinical scenario.

**References:**
4. Endowrist® One™ Vessel Sealer for the da Vinci ® Si™ System product information