Dear colleagues and friends,

It is truly a pleasure to invite you to actively participate in the upcoming meeting, The 3rd Live Surgery Workshop International Society of Reconstructive Urology (ISORU), 2nd International Live Surgery Workshop Indonesia Genitourinary Reconstructive Society (InaGURS), in conjunction with 12th Malang Continuing Urology Education (MCUE), which will be held on September 5th-7th, 2019, in Bali Nusa Dua Convention Center (BNDCC), Bali, Indonesia.

The theme chosen is Reconstructive Urology.

These three important meetings that held in conjunctionally will provide a wonderful forum for you to refresh your knowledge and explore new techniques and innovation in urology field from well-known experts. The symposia will be held on the first day and on the 2nd and 3rd day, they are going to be the highlight of live surgeries on various cases of reconstructive urology.

Additionally, we would like to also invite you to submit your recent achievement in scientific writing in various field of Urology. The scientific committee will prepare the prestigious oral presentation and poster presentation awards.

The island of the gods, Bali, awaits you!

Undisputable world well-known meeting destination is easily reach with direct flights from most major cities in the world. Since March 2016 Indonesian government has granted 169 countries for FREE Visitor Visa. Please check the list of countries and further details in visa section at the congress website www.mcue.org

Please make sure you have blocked this important dates and visit the congress website for further program update.

See you soon in Bali......

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Ketamine bladder, diagnosis, and management

Dr Peggy Sau-kwan CHU
Consultant Urologist, Division of Urology, Department of Surgery, Tuen Mun Hospital, Hong Kong & President, Hong Kong Urological Association (2010 – 2012)

Ketamine had all along been used as an analgesic and anesthetic agent. However, ketamine was started to be drug of abuse in the late 1990s. There are no definite diagnostic criteria for ketamine cystitis but urologists should have high index of suspicion if any youngsters presented with severe dysuria, frequency, pelvic pain, urge incontinence to the stage of diaper dependant. These symptoms could occur after even abusing ketamine for a few months. Abstinence is the best treatment for stopping the progression of ketamine cystitis. Reconstructive urology for the contracted bladder due to ketamine abuse should only be considered when all other methods failed. Gastrocystoplasty should be considered because of the possibility of reabsorption of ketamine through the augmented bladder if small bowel is utilized.

Keywords: ketamine, cystitis, management.

Type of grafting on urethroplasty

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Urethral stricture is a common case in urology. Urethral stricture could happen by many causes such as idiopathic, traumatic, inflammatory or iatrogenic. Urethroplasty is a surgical procedure that used to reconstruct urethral patency on urethral stricture. There are several options for repairing urethral stricture in general, including; DVUI, EPA, and augmentation urethroplasty with graft or flap. The indications of doing augmentation urethroplasty with graft were bulbar or penile urethral stricture, risk of tension on urethral anastomosis, and long urethral stricture. While the contraindications were leukoplakia, lichen sclerosis, and systemic skin disease of the oral cavity or long history of tobacco use. Basically, grafts are less reliable in theory, because they have to be revascularized. On the other hand, flap had a generous blood supply, but it was time-consuming to harvest the flap and the dissection was extensive.

In case of bulbar urethral stricture with intact corpus spongiosum, graft had more advantage rather than flap because the anatomy of the urethra moves proximally giving more thick and robust ventrally, so it makes the graft take suitable on vascular bed. On retrospective analysis, overall success rate of graft urethroplasty was significantly better than flap urethroplasty with 80% compared to 67%, respectively. Plenty of sites can be used to harvest graft for urethroplasty, namely, buccal mucosal graft, genital skin graft, extragenital skin graft, lingual skin graft, mucosal bladder graft and colonic mucosal graft. Regardless of tissue type, grafts may be characterized as either split-thickness or full-thickness. Full-thickness skin graft (FTSG) includes the entire epidermis and dermis. Split thickness skin graft (STSG) contains epidermis and a variable amount of dermis. Currently, gold standard for augmentation urethroplasty was full-thickness buccal mucosal graft, but the treatment of urethroplasty also depends case by case beside the location and length of stricture.

Keywords: urethral stricture, urethroplasty, mucosal graft, skin graft

Continent vs. non-continent bladder substitution after radical cystectomies, complication overall survival and quality of life

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Radical cystectomy is a standard procedure for the incidence of muscle-invasive bladder cancer with the risk of morbidity and high mortality. This is an invasive surgery procedure which needed a relatively long period of time surgery and the patients are averagely older with comorbidities. After applying radical cystectomy, the next step is choosing the suitable urinary diversion for the patients. There are some types of urinary diversion with the risk of complication and different quality of life after surgery, from the simple ureterocutaneostomy until the making of new bladder by cutting the part of ileum (orthotopic neobladder). Broadly, it is divided into two groups, continent urinary diversion and incontinent urinary diversion. Continent urinary diversion has a level of comfortable and cosmetics better than the incontinent, but it also has heavier risk of complication. Therefore, as a surgeon, we have to be very careful to consider in choosing and determining the kind of urinary diversion after radical cystectomy. In the opposite, incontinent urinary diversion is less invasive and the time length of surgery also shorter, but it may cause the quality of life of the patients lower and also less good in cosmetics. Usually, for the younger patients with the light comorbidity and better micturition function, the selection of urinary diversion is continent urinary diversion, while incontinent urinary diversion is often applied to the older patients with heavier comorbidity. Before we applying urinary diversion, we have to consider the patients condition and the ability and the experience of the Urologist. The Urologists in an education hospital are often applying this type of surgery, with their sufficient experience they will be better in deciding the type of urinary diversion for each patient. Ideally, urinary diversion which selected after radical

ABSTRACT
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Ketamine bladder, diagnosis, and management

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Ketamine had all along been used as an analgesic and anesthetic agent. However, ketamine was started to be drug of abuse in the late 1990s. There are no definite diagnostic criteria for ketamine cystitis but urologists should have high index of suspicion if any youngsters presented with severe dysuria, frequency, pelvic pain, urge incontinence to the stage of diaper dependant. These symptoms could occur after even abusing ketamine for a few months. Abstinence is the best treatment for stopping the progression of ketamine cystitis. Reconstructive urology for the contracted bladder due to ketamine abuse should only be considered when all other methods failed. Gastrocystoplasty should be considered because of the possibility of reabsorption of ketamine through the augmented bladder if small bowel is utilized.

Keywords: ketamine, cystitis, management.

Type of grafting on urethroplasty

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Urethral stricture is a common case in urology. Urethral stricture could happen by many causes such as idiopathic, traumatic, inflammatory or iatrogenic. Urethroplasty is a surgical procedure that used to reconstruct urethral patency on urethral stricture. There are several options for repairing urethral stricture in general, including; DVUI, EPA, and augmentation urethroplasty with graft or flap. The indications of doing augmentation urethroplasty with graft were bulbar or penile urethral stricture, risk of tension on urethral anastomosis, and long urethral stricture. While the contraindications were leukoplakia, lichen sclerosis, and systemic skin disease of the oral cavity or long history of tobacco use. Basically, grafts are less reliable in theory, because they have to be revascularized. On the other hand, flap had a generous blood supply, but it was time-consuming to harvest the flap and the dissection was extensive.

In case of bulbar urethral stricture with intact corpus spongiosum, graft had more advantage rather than flap because the anatomy of the urethra moves proximally giving more thick and robust ventrally, so it makes the graft take suitable on vascular bed. On retrospective analysis, overall success rate of graft urethroplasty was significantly better than flap urethroplasty with 80% compared to 67%, respectively. Plenty of sites can be used to harvest graft for urethroplasty, namely, buccal mucosal graft, genital skin graft, extragenital skin graft, lingual skin graft, mucosal bladder graft and colonic mucosal graft. Regardless of tissue type, grafts may be characterized as either split-thickness or full-thickness. Full-thickness skin graft (FTSG) includes the entire epidermis and dermis. Split thickness skin graft (STSG) contains epidermis and a variable amount of dermis. Currently, gold standard for augmentation urethroplasty was full-thickness buccal mucosal graft, but the treatment of urethroplasty also depends case by case beside the location and length of stricture.

Keywords: urethral stricture, urethroplasty, mucosal graft, skin graft

Continent vs. non-continent bladder substitution after radical cystectomies, complication overall survival and quality of life

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Radical cystectomy is a standard procedure for the incidence of muscle-invasive bladder cancer with the risk of morbidity and high mortality. This is an invasive surgery procedure which needed a relatively long period of time surgery and the patients are averagely older with comorbidities. After applying radical cystectomy, the next step is choosing the suitable urinary diversion for the patients. There are some types of urinary diversion with the risk of complication and different quality of life after surgery, from the simple ureterocutaneostomy until the making of new bladder by cutting the part of ileum (orthotopic neobladder). Broadly, it is divided into two groups, continent urinary diversion and incontinent urinary diversion. Continent urinary diversion has a level of comfortable and cosmetics better than the incontinent, but it also has heavier risk of complication. Therefore, as a surgeon, we have to be very careful to consider in choosing and determining the kind of urinary diversion after radical cystectomy. In the opposite, incontinent urinary diversion is less invasive and the time length of surgery also shorter, but it may cause the quality of life of the patients lower and also less good in cosmetics. Usually, for the younger patients with the light comorbidity and better micturition function, the selection of urinary diversion is continent urinary diversion, while incontinent urinary diversion is often applied to the older patients with heavier comorbidity. Before we applying urinary diversion, we have to consider the patients condition and the ability and the experience of the Urologist. The Urologists in an education hospital are often applying this type of surgery, with their sufficient experience they will be better in deciding the type of urinary diversion for each patient. Ideally, urinary diversion which selected after radical
cystectomy surgery is easy to prepare, easy to apply, less complication, lower in morbidity and mortality, and also could protecting the function of the kidney. It also has to be well accepted by the patients for their future life, because the main goal is to keep their quality of life better.

**Keywords:** cystectomies, surgery, technique.

### Non-traumatic posterior urethral strictures/stenoses

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Posterior urethral obstruction is an uncommon but challenging problem faced by urologists. It can be traumatic or iatrogenic following surgery or radiation/energy-ablation treatment. While in developing countries it is primarily due to pelvic fracture urethral injury, in industrialized nations posterior urethral stenosis results usually from pelvic cancer treatments, most commonly prostate cancer or, less often, surgery for benign prostatic hyperplasia. In this lecture we will discuss only non-traumatic obstruction of the posterior urethra. Treatments for prostate cancer may include radical prostatectomy, radiotherapy, and other energy-ablation modalities. Vesicouretal anastomosis is the most common site of stenosis after radical prostatectomy, whereas urethral stricture following radiation therapy typically occurs in the bulbomembranous urethra. Refractory stenosis, significant necrosis or end-stage incontinence are referred to as the devastated outlet/posterior urethra. Minimally invasive procedures (dilatation and/or internal urethrotomy under endoscopic vision) may be the initial treatments. However, the overwhelming majority of them fail. Repeated failed treatment may lead to severe complications such as calcificant posterior urethral stenosis, urosymphyseal fistula, osteomyelitis, urethral fistula, and other debilitating conditions that may eventually need definitive surgical repair, exenteration, and urinary diversion.

**Keywords:** urethral, posterior, surgery, management.

### Peyronie’s disease: current update in 2019

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Peyronie’s disease (PD) remains an under-reported and debilitating problem which can result in significant physical and psychological symptoms and quality of life for some men. The classic symptom complex includes penile plaque, penile curvature, and penile pain, the latter two evident in the erect state. Erectile dysfunction, penile instability, and penile shortening, alongside feelings of low mood/libido, dysmorphobia, and low self-esteem are also common complaints. PD is characterized by the development of a localized fibrotic inelastic plaque in the tunica albuginea which causes penile deformity, pain and/or erectile dysfunction (ED). Recent epidemiologic surveys suggest that the prevalence of PD is higher than previously believed (range from 3% to 8%), and that PD affects a significant portion of the male population. The consequences of PD lead to a substantial decrease in quality of life and adverse physiologic effects in approximately 77% of afflicted men. Because the exact pathophysiology of PD remains unknown and standards for evaluating or reporting treatment outcomes are unclear, research on effective therapies has been limited. The optimum medical therapy for PD has not yet been identified. In the last 5 years, commonly used oral medications have been replaced by intralungal therapies. Intralugal collagenase *Clostridium histolyticum* is the only US Food and Drug Administration (FDA) approved treatment for PD. However, the benefits of nonsurgical treatment options are conflicting and further controlled studies are required before any therapy can be fully recommended. The success of surgery has been well documented; however, surgery is invasive and costly and carries potential side effects. Patients who report stable disease that has been present for longer than 12 months and who experience penile deformity preventing satisfactory sexual intercourse are best suited for surgery. Additionally, failed conservative management and a patient’s preference for definitive correction are important additional indications for surgical treatment. Currently, minimally invasive intralugal therapies and surgical intervention form the basis of contemporary therapy for this disorder.

**Keywords:** Peyronie’s, disease, management, advice, evidence.

### Staged urethroplasty in penile urethral strictures

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Staged urethroplasty, defined as planned repair involving > 1 surgery, is probably the oldest form of urethral reconstruction (Russell in 1914) and still has a place in today’s reconstructive urology. The first description was by Russell in 1914 and later refined and popularized by Johanson in 1957, and posteriorly modified by others (Turner-Warwick, Blandy, Leadbetter, Gil-Vernet, Schreiter and Mundy). In theory, single-stage urethral reconstruction is always desirable as it involves less morbidity and inconveniences associated with > 1 anesthetic/operation, and less costs, besides avoiding a proximal urethroplasty. Staged buccal mucosa graft urethroplasty has emerged as a reliable procedure for difficult anterior urethral strictures not amenable to one-stage graft or flap reconstruction. It has primarily been used for strictures and/or fistulae occurring after previous surgery for hypospadias or those related to lichen sclerosus (LS). Chronic inflammation, radiation, spinal cord injuries, fistula, false passage, urethral stones, urethral diverticula, abscess, and failed prior repairs are potential indications that are often managed best with a staged repair. If parts of the urethra require complete resection because of scars, stones or former urethral reconstruction using hair-bearing flaps or subsequent deviation and shortening of the penis, one has no option but to perform a two-stage reconstruction. Success rates in these patient populations have improved when compared to earlier techniques. Staged urethroplasty is a safe and effective option and an important element in the armamentarium of the urethral reconstructive surgeon as there are various situations in which a staged approach may be preferable or crucial, depending on the condition of the local tissues, presence of an obliterated urethral segment, or the history of prior surgical interventions.

**Keywords:** urethroplasty, surgery, management, challenge.
Hypospadias in Indonesia: current preference surgery

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Hypospadias is congenital disorder due to the union failure of the urethral plate resulting in the abnormal location of the external urethral meatus. The main objective of hypospadias repair is to have a nearly normal cosmetic and functional result. Snodgrass mentioned that TIP procedure is a suitable technique for both distal and proximal hypospadias but in our center, we do many other techniques such as flap/onlay and stages urethroplasty. There is no ideal urethroplasty technique that can be applied to repair all types of hypospadias. Outcome of urethroplasty will be highly influenced by age at surgery, type of hypospadias, operation technique, catheter and urethral splitting, cystostomy, wound dressing and many other factors. Complications that often occur after the urethral reconstruction are urethrocunaneous fistula, meatus stenosis, weak urinary stream and bad cosmetic display. Our overall successful rate in our series was 77.80%. Also, multi centers data across Indonesia along 2017 has shown a successful rate up to 86.8% regarding the occurrence of urethrocunaneous fistulae after urethroplasty.

The optimal timing of hypospadias repair is still debating. Earlier repair in children may pose a greater risk of anesthetic complications involving respiratory complications, cardiac arrest and others. Delay of hypospadias repair has considered problematic due to concern about possible psychological harm. Bases on these consideration, hypospadias repair should be performed between 6 and 12 months. Kocherov et al mentions that delayed urethroplasty in cases of hypospadias results in higher incidence of urethrocunaneous fistulas, failed reconstruction results and higher incidence of urethral strictures.

Urethrocunaneous fistula that is used as a basis for evaluation of the urethroplasty method efficacy, is the most common complication of urethroplasty. Mostly they are caused by infection, irritation, ischemia, abnormal reaction to suture and suturing technique. Fistulas occurs between days 7 to 10 after surgery. Many studies have already obtained the relationship between stenosis meatus incidence with urethroplasty method. This relates to the more tension-free stitching of the neo-urethra. In TIP surgery technique, the meatus stenosis also can be caused by the formation of scar. The fistula and meatus stenosis complications after flap and TIP procedure were reported to be 45%. In our 2016 series, both technique have no statistically different in fistula outcome, flap 5.6% and TIP 11.1% (p=0.5, 95 CI interval 2.0, range 0.199-20.146). Cystostomy in hypospadias operation is still debatable. In our hospital, proximal hypospadias used cystostomy to divert the urine and minimal 8 fr. silicon catheter to splint the neo-urethra. Study that conducted in 2013-2014, reported that fistula incidence in cystostomy group is 2.9% and 17.6% in no cystostomy group (p= 0.034, r=0.364, PR= 0.16). Cystostomy in proximal hypospadias repair is expected to reduce the incidence of fistula.

Moreover, our multi-centers data showed that penile hypospadias, single-stage operation technique, and bigger urethral split were higher in bivariante analysis for the occurrence of urethrocunaneous fistulae among each variable group, with p-value 0.041; 0.043; and 0.207, respectively. However, no risk factors for urethrocunaneous fistulae were significantly associated after multivariate analysis.

The ideal scoring system for cosmetic results after hypospadias surgery is an objective, easily reproducible, and valid system to assess all relevant and corrected aspects of hypospadias surgery. The HOPE score system evaluates the appearance of the penis based on six aspects that can be corrected in surgery: the position of the meatus, the shape of the meatus, the shape of the glans, the shell of the penis, and the angle of the penis including the torsion of the penis. Duarsa et all, 2016, showed the cosmetic outcome was influenced by the type of hypospadias. Proximal hypospadias patients that undergone TIP procedure will have 14.93 fold of chance a total score of HOPE under or the same as 45 (p<0.05), EOR=14.93). Our other study revealed that distal hypospadias, TIP and Flap technique has a similar cosmetic outcome (using HOPE score) (p=0.169 95% CI: 4: 0.494-32.393).

Other complications of urethroplasty surgery is a weak urinary stream. Generally, parents or patients are not too aware of this abnormality. This complication usually occur in the presence of urethral stricture, stenosis or compliance or resistance from unequal urethral walls. Saksono, Suryadi and Duarsa, 2017, performed a case-control study using 40 subject hypospadias patients that undergone TIP procedure at Sanglah hospital, 20 subject each group. The result shows median Qmax are 9.54 ml/s and 22.49 ml/s for case and control group respectively. Sixteen of 20 subject in case group (Qmax ≤ 10 ml/second), were patients with proximal hypospadias types, with OR is 16 (CI 2.8-101; p=0.001). This result shows that TIP technique for proximal hypospadias will give a lower flow rate than distal one. Duarsa et al., 2016 showed that for distal hypospadias, Flap technique will give a better urinary stream if compare to TIP technique (p = 0.05, 95% CI 0.315 to 0.794).

Concern in meatal urethral stenosis, Snodgrass, who introduced the TIP technique, suggesting the closure of a 2-layer neo-urethra using a tunica vaginalis flap and put an inner preputial inlay graft to gain the more tension free stitching and reduce the formation scar tissue in neourethra. Respectively Duarsa et al. 2016, obtained 36 samples of 54 hypospadias patients by consecutive random sampling, showed that in distal hypospadias flap technique will give no meatal urethral stenosis (0%) while TIP will give 44.4% meatal stenosis (p=0.001)

**Keywords:** Hypospadias, HOPE, urethrocunaneous fistulae, meatal stenosis, flow rate

Reconstructive urology in Hong Kong

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In the 70s and 80s, reconstructive urology was mainly for patients suffering from tuberculosis of the urinary tract. These patients usually had solitary kidney due to auto nephrectomized opposite kidney as a result of tuberculosis. In addition, most of them suffered from ureteric stricture and contracted bladder requiring ileal interposition with or without augmentation ileocystoplasty or “Leong and Ong’s”gastrocystoplasty (Leong & Ong). Starting from the 90s, urologists started to perform substitution cystoplasty or continent cutaneous urinary diversion for patients suffering from bladder carcinoma or other pelvic malignancy. Urethral stricture was most of time managed by endoscopy urethrotomy or balloon dilatation before late 90s. Starting from late 90s and early 2000s, some urologists started to perform urethroplasty for patients suffering from urethral stricture disease.

**Keywords:** urethroplasty, development, history, surgery.
ABSTRACT

Sclerosing lipogranuloma of the penis: classification and management

Boyke Soebhali

Penis size has long been a source of apprehension to men. Thus, efforts to make the penis larger is chronicized since ancient times. Penis girth augmentation by localized injection of mineral oil has been practiced for a long time. The devastating effects have been long acknowledged, and the practice is abandoned by most medical practitioner. However, in some places like in South East Asia, The Middle East and Eastern Europe; the practice of penile injection with mineral oil is still performed mostly by non-medical persons. The inflamed tissue and foreign body reaction will result in sclerosing lipogranuloma. Human body cannot metabolize foreign lipid contained in the mineral oil. The inflamed tissue and foreign body reaction will result in sclerosing lipogranuloma. This condition has also been called by the name of injected material used, like paraffinoma, siliconoma or vaselinoma of the penis. After the injection, the result can be devastating. Ulcers, swelling, pain, hardened skin, skin necrosis, sexual disability, and death by embolism to name a few. Migration of the affected area to the scrotum and suprapubic area is also a problem, and makes treating this disorder more difficult. Complete excision of the affected area followed by covering the exposed area is the main principle of the management. If available, scrotal skin is a good choice to cover the affected area. At this time a good classification system of sclerosis lipogranuloma of the penis has not been established, and will be helpful to report and treat the disease.

Keywords: lipogranuloma, penis, complication, management.

Endoscopic management in urethral stricture

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Introduction: Urethral stricture was defined as scar in the subepithelial tissues of the corpus spongiosum which constricts the lumen of the urethra disease, it keeps being problematic for patients and urologists alike. Endoscopic treatment offers a minimally invasive approach, lower cost, simple, and potentially effective treatment of primary, short bulbar urethral strictures, which is stricture free rates reached until 50-70%. Therefore, it is necessary to comprehend endoscopic management in urethral stricture.

Objective: In order to give comprehension about endoscopic management in urethral stricture thus creating urologist consideration in order to take action in urethral stricture cases.

Discussion: In anterior urethral stricture seemed to have a trend of DVIU treatment (90.7%) in a recent study compared to urethroplasty (9.3%). Although procedures endoscopic internal urethrotomy and urethral dilatation are deemed nearly equivalent in terms of primary treatment of urethral strictures. Despite the feasibility of repeated endoscopic treatment of urethral strictures, several studies have reported progressively worse outcomes with each procedure. Although the success of an initial procedure maybe 60% to 70%, repeated procedures fail at compounding rates. Meanwhile in posterior urethral stricture, endoscopic success rate was approximately 50-70%. Further risks of repeated urethrotomy or dilation are lower stricture-free rates at the time of definitive urethroplasty. Characteristic of ideal patient for DVIU were found stricture size, location, caliber, and prior treatment.

High recurrence rates for IU led urologists to attempt methods that would increase the durability of this repair. Such approaches included postoperative indwelling urethral catheters, clean intermittent catheterization (CIC), and urethral stenting. More recently, antifibrotic agents have been studied as an alternative to mechanical methods for preventing early scar formation and recurrence. CIC is suggested in certain patients to maintain patency after dilation or urethrotomy. Mitomycin C acts as an antifibroblast agent by preventing fibroblast proliferation and, thereby, scar formation. Local steroid injections have also been experimented with as an anti scar adjunctive agent in IU because of its antifibroblast and anti-collagen properties. Postoperative catheter drainage should not be more than 3 days.

Conclusion: Endoscopic treatment offers rational consideration to take by urologist to be used for patient-centered care focused on the individual problem. With the advent of adjunctive antifibrotic agents the durability of endoscopic repair seems to improve, but their use requires continued research and longer follow-up to determine their efficacy.

Keywords: urethral stricture, endoscopy, urology, treatment.

The pitfalls of urethral stricture management

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Introduction: Urethral stricture management is still challenging field of surgery. The number of cases and the variety of treatment modalities sometimes confused urologist in daily clinical practice. Mismanagement of urethral stricture disease could cause quality of life deterioration of the patient.

Discussion: The understanding of basic knowledge in urethral stricture disease has an essential role for the better clinical outcome in urethral reconstruction surgery. A proper evaluation, pre-operation examination, intraoperative decision, and post-operative follow up is fundamental in determining excellent surgical and functional outcome. Subspeciality training in urethral reconstructive surgery shows a better and promising outcome compare to self-learned reconstructive surgery. Determining the aetiology is crucial in to determine the kind of reconstructive surgery could be chosen. Proper diagnostic procedure, instrument collection, and a good teamwork also could increase the surgeon convenience to do urethral reconstructive surgery. An algorithm is proposed by the Indonesian Genitourinary Reconstruction Society (InaGURS) to guide Indonesian urologist to understand the algorithm and principle how to manage the urethral stricture diseases. Sub-specialised dedicated referral centre and postgraduate education in genitourinary reconstruction surgery are needed to optimise the success rate in urethral reconstruction management.

Conclusion: Urethral reconstruction surgery is a challenging field to master. A dedicated individual and referral centre is needed to improve the better outcome and patient’s quality of life.

Keywords: challenge, urethral, reconstruction, surgery.
Genitourinary reconstruction is a challenging field of surgery. Due to the limited number of urologist, and a large number of patients, it creates a numerous load of work for Indonesian urologist. This subject has become an ‘abandoned’ work for most urologist. Only few people and small number of Urology Center are dedicated for this field of surgery. Prosthetic operation was introduced in Indonesia around 1990-2000 but the load decrease from time to time due to the expensive price of the device and also the overload of work of the urologist. Pediatric urology has more number in the country, hypospadias and other congenital abnormalities are the most frequent problem that we dealt for many years. Urethral reconstruction surgery has just started taking place in the last few years. The lack of understanding and also the absence of mentor are some of the reason why the treatment for strictures are ‘substandard’ in the past. In 2013, some of Indonesia urologist had the opportunity to do an observational fellowship in Pune, India under the guidance of Prof. Sanjay Kulkarni. In 2015, with the support of Indonesian Urological Association, we declared a new society named Indonesian Genitourinary Reconstructive Society (InaGURS). This society has conducted several local workshops, invited International faculties and planned for international meeting and workshops to improve the knowledge of Indonesian urologist and also to improve the service for the community regarding Genitourinary reconstruction. After few years, the national and international recognition has been achieved by the society, and some centre has been established as reconstructive urology referral centre. Indonesian urologists are still in the learning phase of understanding this field of genitourinary reconstruction, in the future a proper training and mentoring will be needed to improve the treatment quality for the patients.

**Keywords:** reconstructive, urology, management, society.

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**Urethroplasty for neourethral stenosis in a male-to-female gender reassigned patient**

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**Introduction:** This is a case of a gender-reassigned patient who subsequently developed a neourethral stricture secondary to lichen sclerosis. A buccal mucosal graft urethroplasty was performed with good result.

**Case report:** We present a case of a 69-year transgender patient who underwent male-to-female reassignment in 1983. The patient presented with lower urinary tract symptoms and acute urinary retention. A voiding cystometrogram revealed a 6mm distal neourethral stricture. Clinical examination was consistent with scarring, possibly due to lichen sclerosis. A buccal mucosal graft urethroplasty was performed, and the procedure is well described in our video presentation. The patient’s flow rate improved post-operatively to 15.6mL/s with a post-void residual of 2mLs. The patient is now continuing to undergo close follow-up for stricture recurrence and has not had any voiding symptoms at 1 year.

**Discussion:** Surgical management of urethral stricture disease secondary to lichen sclerosis can be challenging and varied. Buccal mucosa grafts have been acknowledged as an ideal substitute for the urethra including easy accessibility and manual handling, resistance to infection and compatibility with a wet environment.

The bulk of the literature in gender reassignment surgery mainly refers to the management of urethral strictures in the neophallus but very few studies comment on the male-to-female patient. Our experience has shown that buccal mucosal graft urethroplasty is a feasible therapeutic option with good short-term outcomes.

**Conclusion:** Lichen sclerosis is a chronic and progressive skin condition that can affect the urethra. Patients who undergo gender-reassignment surgery are at a higher risk of urethral strictures and should be monitored closely for this. Buccal mucosal graft urethroplasty has, in this case, been an excellent therapeutic option for the treatment of urethral stricture in the gender-reassigned patient.

**Keywords:** stricture, urethral, surgery, management.

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**Posterior urethroplasty, how can I success?**

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**Introduction:** Given its complex anatomy, injury to the posterior urethra may result in several reconstructive challenges. We demonstrate a simplified posterior urethroplasty technique, which could be a guide for achievement in this challenging reconstruction.

**Case:** After waiting for 6 months after trauma, we used the flexible cystoscopy to examine through the suprapubic tube simultaneous with retrograde
urethrogram to define the precise length and location of the defect. The patient was operated in the exaggerated dorsal lithotomy position. Before starting the procedure, we did the endoscopy through the suprapubic tube and through the urethra to mark the level of the defect. After opening the perineum layer by layer, Loe star retractor was used for proper exposure. The Corpus spongiosum and the urethra were dissected from the corpus cavernosal carefully and were dissected down to the proximal part of the defect. Cystoscopy through both suprapubic and urethra was done again to ensure the level of the stricture before excising. We aggressive mobilized the bulbous part of the urethra to obtain the adequate length for the anastomosis. Twelve stitches of 5/0 maxon were used for repairing the anastomosis over the 18-French of silicone catheter that was inserted for 3 weeks. The operative time was about 3–4 hours with minimal amount of bleeding. Patient has had good recovering. After removing the catheter, the retrograde urethrogram and the VCUG showed patent lumen of the urethra. The urolflowmetry demonstrated a good flow and the patient has normal continence.

Conclusion: Although the posterior urethroplasty is difficulty and challenge, the good technique and useful equipment are the paramount for simplified the procedure and good results. Five essential things for successful urethroplasty are good exposure, adequate light, meticulous technique, useful equipment and counselled with the patient about incontinence before the reconstruction.

Keywords: urethroplasty, posterior, surgery, management.

Super perc mini percutaneous nephrolithotomy using shah sheath procedure for simple renal stone

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Introduction: Urinary stone disease has affected humankind since antiquity. Major technological advances have improved the treatment of kidney stones and a minimally invasive technique. Nephrolithiasis is a common cause of morbidity in the USA, with a lifetime prevalence of 5-10%. Since the introduction of percutaneous-nephrolithotomy (PCNL), there has been various modification to improve success rates. The overall complication rate of PCNL can be up to 83%, which can be minimized by accurate patient selection and careful postoperative follow up. Renal access is the most important differences for technique, which contributes to the spectrum of complication and outcomes. Mini-PCNL was first introduced in 1997 using a 10-Fr pediatric cystoscope in children, which reduced complication of the standard method. Furthermore, it could be used for all of upper tract stones.

Case Report: Sixty two-years-old male presented to the emergency department with severe left flank pain and radiating to the left lower quadrant for three months before admission. The pain was intermittent. Left kidney stone was apparent on KUB radiograph. The patient was diagnosed with left renal stone. The patient underwent mini-PCNL. Supine position mini-PCNL was performed by miniature endoscope via small percutaneous tract 18 Fr. For tract dilatation, operation and lithotripsy, 18 Fr dilator, shah sheath with suction mechanism, mini nephroscope and pneumatic lithotriptor were used, then pieces of stone effectively removed by active suction. No major bleeding was observed in postoperative period. The patient was discharged on second day post-operation.

Conclusions: In this case, patient with simple renal stone can be performed mini PCNL safely and it can decrease the risk of bleeding. Patient showed improvement of general condition.

Keywords: mini PCNL, renal stone, minimal invasive

A network meta-analysis on comparative efficacy of statins focusing for prevention of contrast-induced acute kidney injury in chronic kidney disease patients undergoing percutaneous coronary intervention

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Introduction: The use of interventional diagnostic and therapeutic procedures required intravascular iodinated contrast are performed in millions of patients worldwide and are steadily increasing the risks of contrast-induced acute kidney injury (CI-AKI). Statins are primarily used in cardiovascular medicine for their lipid-lowering effects but they possess remarkable pleiotropic effects such as improving endothelial function as well as decreasing oxidative stress and inflammation. A network meta-analysis was carried out to evaluate the effect of different statins in prevention of CI-AKI and also to investigate which type and dose of statins may be the best choice specifically in CKD patients who have higher risk.

Methods: We performed a pairwise and network meta-analysis of 14 randomized studies (9847 patients) comparing a total of 6 different statins: rosuvastatin high dose, atorvastatin high dose, simvastatin high dose, rosuvastatin regular dose, atorvastatin regular dose, pravastatin regular dose versus each other and versus placebo in CKD patients undergoing PCI with iodinated contrast for prevention of CI-AKI. Google Scholar, Pubmed, Science Direct databases were searched up to May 2019. The data were pooled using STATA, and R version statistics calculating odds ratios (ORs) with 95% confidence intervals.

Results: Statin loading before contrast administration was associated with a significantly reduced risk of CI-AKI in patients with CKD undergoing cardiac catheterization (pooled OR= 0.51; P=0.0001). Regular dose pravastatin comprised the best effect size for a reduction in CI-AKI risk (OR = 0.32, 95% CI 0.14-0.72, p=0.006). Regular dose pravastatin and high dose atorvastatin were ranked as the highest probability to be the best treatment (Pbest) with 44% and 31% respectively for effect on CI-AKI prevention.

Conclusion: Preloading with statins is associated with significantly reduced risk of CI-AKI in patients with CKD undergoing cardiac catheterization. Regular dose pravastatin and high dose atorvastatin have the highest probability to be the most effective prevention strategy.

Keywords: Contrast-induced Acute Kidney Injury, Statin, Chronic Kidney Disease.
International Prostatic Symptoms Score as a significant predictor for sexual dysfunction in elderly men

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Introduction: Lower Urinary Tract Symptoms (LUTS) are common in men over 50 years old. Several studies suggested that patients with LUTS often have coexisting sexual problems, affecting their quality of life with partner. In Indonesia, these problems are still misperceived and patients come late with severe symptoms. This study aims to determine the incidence of LUTS and sexual dysfunction in Balikpapan and to investigate whether International Prostatic Symptoms Score (IPSS) as LUTS assessment tool might be a predictor for sexual dysfunction.

Methods: This is a cross-sectional study using consecutive sampling method. Subjects were taken from four primary healthcare centers in Balikpapan from January to June 2018. Inclusion criteria were: male gender, age 50-80-year-old. Exclusion criteria were: history of LUTS with any urological treatment. IPSS was used to determine LUTS, while sexual function was assessed using the International Index of Erectile Function (IIEF).

Results: This study collected 154 subjects, mean age 64 year old (SD ± 8.04). The incidence rates of erectile dysfunction among men with mild, moderate, and severe LUTS were 71.70%, 94.90%, and 95.50% respectively. IPSS is a strong predictor for Erectile Function score (R²: 0.85, Y = 26.25 - 0.82 X), Orgasmic Function score (R²: 0.81, Y = 9.02 - 0.24 X, p < 0.01), Sexual Desire score (R²: 0.75, Y = 9.15 - 0.23 X, p < 0.01), Intercourse Satisfaction score (R²: 0.73, Y = 12.99 - 0.36 X, p < 0.01) and Overall Satisfaction score (R²: 0.74, Y = 9.07 - 0.25 X, p < 0.01).

Conclusion: Higher IPSS is significantly associated with lower IIEF score in each domain. Therefore, IPSS should be considered as an efficient tool to determine sexual dysfunction besides LUTS, especially in primary healthcare.

Keywords: symptom, score, sexual, dysfunction.

Comparison of laser and pneumatic lithotripsy efficacy and safety in supine percutaneous nephrolithotomy

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Introduction: Percutaneous nephrolithotomy (PCNL) is one of selected method in managing large kidney stone. The purpose of this research is to compare the efficacy and safety of PCNL using laser and pneumatic lithotripsy methods.

Method: This research is designed by using a cross-sectional study based on secondary retrospective data from patient’s medical record in hospital from November 2018 - June 2019. All operations are carried out by single operator using the Barts flank-free modified supine PCNL position. Data were collected from 80 patients, divided into two groups underwent laser (40 patients) and pneumatic (40 patients) lithotripsy and compared in terms of age, stone burden, total operating time, fluoroscopy time, stone fragmentation and removal time, Hemoglobin loss, length of stay, intra and postoperative complications, Clavien-Dindo classification of surgical complication, and stone-free rate.

Result: There were no significant differences between the laser and pneumatic group in age (51.1 ± 10.3 vs 51.4 ± 11.4 years old, respectively, p=0.862), stone burden (698.1 ± 426.1 vs 853.8 ± 563.3, respectively, p=0.161), total operating time (47.0 ± 36.0 vs 51.9 ± 40.0 minutes, respectively, p=0.447), stone fragmentation and removal time (40.2 ± 34.7 vs. 43.2 ± 42.3 minutes, respectively, p=0.686), hemoglobin loss (1.3 ± 1.3 vs. 1.2 ± 1.1 g/dl, respectively, p=0.838), hospital stay (2.8 ± 2.6 vs. 2.8 ± 1.4 days, respectively, p=0.237), and Clavien-Dindo (1.2 ± 0.8 vs. 1.1 ± 0.3, respectively, p=0.468). Rest stones were significantly less using laser lithotripsy (9/31 vs. 18/22, respectively, p=0.034), and fluoroscopy time also significantly faster in laser lithotripsy (143.4 ± 124.1 vs. 199.9 ± 126.9 seconds, respectively, p=0.017). Complication, perforation of descendent colon, only occur in 1 patient using laser lithotripsy. A limitation of this study might be the less quantity of patients to be examined.

Conclusion: Holmium YAG laser and pneumatic lithotripsy are both effective and safe to eliminate stone percutaneously. Stone free rate was higher using laser lithotripsy. Complication only occurs in 1 patient from laser lithotripsy. PCNL uses laser has the efficacy and safety to deliver promising result.

Keywords: percutaneous nephrolithotomy, laser, pneumatic, supine

Initial clinical experience of indocyanine green for intraoperative and real-time vascularization of corpus spongiosum in urethral reconstructive surgery

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Introduction: Indocyanine green (ICG) is a cyanine dye used in medical diagnostics. It is used for determining cardiac output, hepatic function, liver, and gastric blood flow, and for ophthalmic angiography. It has a peak spectral absorption at about 800 nm. These infrared frequencies penetrate retinal layers, allowing ICG angiography to image deeper patterns of circulation than fluorescein angiography. ICG binds tightly to plasma proteins and becomes confined to the vascular system. To present our initial experience to intraoperatively highlights vascularization of corpus spongiosum via Indocyanine Green visualization under Near-infrared Fluorescent (NIRF) light.

Materials and methods: Indocyanine Green (ICG) evaluation was performed in 7 patients who underwent urethral reconstructive surgery due to urethral stricture with various etiology. Intravenous administration of 5 grams ICG diluted in 2 ml normal saline before and after the intervention of urethroplasty was performed. Near-infrared fluorescent (NIRF) imaging with SPY system (Novadaq) was used to evaluate the expression of ICG in corpus spongiosum.

Results: There were seven patients were included in this study. The mean age was 47.29 ± 8.46 years. Five patients with traumatic stricture and planned for...
excision and primary anastomosis (EPA). The other two patients were idiopathic and prepared for substitution urethroplasty. During the surgery, the ICG expression showed 6 patients had favorable corpus spongiosum that treated as preoperative surgical planning. All these patients had a successful outcome. One patient who had unfavorable corpus spongiosum due to trauma had changed the intervention from EPA to vascular sparing anastomotic urethroplasty. At the 3-month follow-up, this patient had also good outcome with IPSS score 3 and Q-max 22 mL/s. There were no immediate or delayed adverse effects attributable to intravenous ICG administration.

**Conclusion**: Intravenous injection of ICG during urethral reconstruction surgery allows for real-time vascularization of corpus spongiosum and help reconstructive surgeon to determine appropriate urethroplasty techniques.

**Keywords**: indocyanine, angiography, surgery, injection, outcome.

**Management of grade IV kidney trauma revisited: a case report**

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**Introduction**: Renal trauma is uncommon, accounting for approximately 1–5% of trauma admissions with the majority of these injuries being of low severity grading and resulting from blunt trauma. Significant renal injuries (grades II to V) are found in only 5% of renal trauma cases. The most commonly used system for classifying renal traumas is by the American Association for the Surgery of Trauma (AAST). American Urological Association (AUA) advises that hemodynamically stable grade IV renal trauma patients to be managed conservatively, but is it relevant and applicable as the best option in every facility. This paper highlights the clinical course of grade IV renal trauma case where definitive management is considered as the preferable action.

**Case**: A 17 years old female patient are brought to emergency department after a motorcycle accident. Following primary survey, there are left abdominal pain and hematuria. The patient remained hemodynamically stable, and laboratory parameters in the blood analysis within normal limits. The CT scan shows multiple renal lacerations on left kidney, with signs of vascular injury, active arterial contrast extravasation, completed transection, circumferential urinoma and perineal moderate hematoma, corresponding to a Grade IV renal injury. Other organs are within normal limit. With the result of the CT and the patient’s clinically stable status, a conservative approach was decided on, with constant patient surveillance and repeated blood analysis in critical care. Within three hours the blood pressure dropped and repeat hemoglobin count shows significant decrease. Patient is resuscitated with saline and rushed to the operating room where lifesaving nephrectomy is done.

**Conclusion**: The main goal of conservative treatment is renal preservation and conservative treatment are both appropriate and successful for most hemodynamically stable stage IV renal trauma. But only in settings where close follow up monitoring, repeat CTs and emergency surgery is possible. Prolonging intervention in facilities where things mentioned prior are not available, may put the patient at higher risk.

**Keywords**: kidney, trauma, management, conservative.

**The influence of maternal age and gestational age to urinary tract infection in Lempake Primary Health Center**

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**Introduction**: Urinary tract infection (UTI) is the second-largest of the world’s health burden just behind the respiratory tract infection. Pregnant women are at risk of suffering from urinary tract infection due to anatomical and physiological changes along the urinary tract. This study aims to find out the influence of maternal age and gestational age to UTI in Lempake Primary Health Care Center (PHC).

**Method**: The research method was cross sectional with total sampling and using secondary data from the register book of emergency unit in Lempake PHC including all UTI cases in pregnancy from all pregnant patient undergone urinalysis from January 2017 until October 2018 (48 patients). Then analyzed using logistic regression with STATA version 14.

**Result**: Most of subjects distribution were maternal age group 26–35 years old (39.6%), third trimester of pregnancy (66.7%), and negative result of bacteriuria (81.3%). Maternal age group 26–35 years old was the the most one suffering from UTI/positive result of bacteriuria (55.6%) and had tendency 5.4 times to suffer from urinary tract infection (p=0.147; CI=0.56–51.71; OR=5.36) while gestational age in third trimester showed significant influence to urinary tract infection (p=0.05; CI=0.03–1.00; OR=0.18). The prevalence of urinary tract infection in this research was 18.7%.

**Conclusion**: Based on the result of research can be concluded that there were significant influences among maternal age and gestational age to UTI Lempake Primary Health Care Center.

**Keywords**: Maternal Age, Gestational Age, Urinary Tract Infection

**Bilateral synchronous percutaneous nephrolithotomy: a case report**

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**Introduction**: For Bilateral renal stone treatment, Synchronous Bilateral Percutaneous Nephrolithotomy (PCNL) began to be seen as useful as the staged PCNL, but it remain a challenging procedure. Especially on bilateral obstruction patient that already develop severe hydronephrosis. We try to describe the first bilateral synchronous PCNL that was done in Saiful Anwar General Hospital Malang.

**Case Presentation**: We present a case of 49 years old male with constant flank pain on both side, from abdominal non-contrast CT-scan he has bilateral pyelum stone and hydronephrosis, from laboratory finding, creatinin serum was 1.5mg/dLuseful and ureum serum was level 69.8mg/dL. We perform bilateral synchronous PCNL in a prone position, and stone fragmentation with pneumatic lithotripter, the operation lasts for about 2 hours with minimal amount of bleeding. After five months of follow-up, he was stone-free with normal ureum-creatinine level (0.77mg/dl; 43.7mg/dl) and no more clinical complaint.
Bilateral synchronous PCNL is an excellent choice to treat bilateral pyelum stone, it can decrease LOS, total cost therapy, and morbidity of the patient.

**Keywords:** Bilateral Synchronous PCNL, pyelum stone, severe hydronephrosis.

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**Hope for tubular epithelial regeneration: inflammation study using Ndst-1 knockout on endothelial heparan sulfate of diabetic nephropathy mice model**

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**Introductions:** Endothelial-heparan-sulfate (HS) proteoglycans contributes to adhesion and transendothelial migration of leukocytes into perivascular in renal inflammation. The responsible gene for starts sulfation in HS is Ndst-1. However, the underlying mechanism of inflammation is partly understood. The study aims to evaluate TGFβ Receptor1 and profibrotic markers expression in Ndst1-knockout diabetic nephropathy mice model.

**Methods:** In order to get the inflammation model, we used diabetes induced (DB) mice with streptozotocin injection intraperitoneally on male C57Bl/6j and divided into Ndst1⁺/⁻Tie2Cre⁻ (wildtype) and Ndst1⁻/⁻Tie2Cre⁺ (knockout or specific deletion under Tek2-promotor) mice for five consecutive days (50mg/kgBW) (N=10-11/group). As control (HC) of both genotypes received citrate buffer (N=3/group). Four weeks after diabetes induction, animals were sacrificed and kidneys analyzed by immunohistochemistry and qRT-PCR.

**Results:** Diabetic-Ndst1⁻/⁻Tie2Cre⁻ mice showed increased glomerular macrophage infiltration, mannose-binding lectin complement deposition, and glomerulosclerosis compared to healthy control mice, whereas pathological reactions were prevented significantly in diabetic-Ndst1⁺/⁻Tie2Cre⁺ mice (allp<0.01). Podocyte damage marker desmin was significantly higher in Ndst1⁻/⁻Tie2Cre⁻ compared to Ndst1⁺/⁻Tie2Cre⁺-mice (p<0.001), with both groups, had a comparable amount of podocytes. In cortical tubulointerstitial, similar analyses showed decrease in interstitial macrophage accumulation in diabetic-Ndst1⁻/⁻Tie2Cre⁺ mice compared to wildtype (p<0.05). Knockout group of mice demonstrated reduced interstitial fibrosis compared to wildtype group as evidenced by reduced density of aSMA-myofibroblasts, collagen I, collagen III, and fibronectin (p<0.001). TGFβ Receptor1 expression in DB/Ndst1⁻/⁻Tie2Cre⁺ group was significantly higher compared to Ndst1⁻/⁻Tie2Cre⁻ group (p<0.001).

**Conclusion:** Our studies portrayed an essential role of endothelial HS in development of renal inflammation and fibrosis, which HS is possible target for therapy. TGFβ Receptor 1 upregulation in Ndst1-knockout showed TGFβReceptor1 could be marker for epithelial regeneration.

**Keywords:** Ndst-1, endothelial, regeneration, receptor.

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**Initial experience on laparoscopic pyeloplasty in Persahabatan General Hospital, Jakarta, Indonesia**

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**Introduction:** Unresected ureteropelvic junction obstruction would lead to infection and many other complications. The gold standard to treat this condition is pyeloplasty. Nowadays, laparoscopic pyeloplasty has emerged as a potential modality better than open pyeloplasty.

**Method:** Data were retrospectively obtained from medical records of Ureteropelvic junction obstruction (UPJO) patients at Persahabatan Hospital, Jakarta. Patient’s age, gender, weight, and BMI were noted. Operating time, intraoperative blood loss, and complication were recorded as the intraoperative status. Length of hospital stay, VAS on the first postoperative day, time to do the daily activity and return to work were recorded as postoperative variables of this study.

**Results:** We included our 10 patients who underwent laparoscopic pyeloplasty in our center. The mean of patient’s age is 40.3 ± 17.1 years with 70% male patients. The average body weight and body mass indexes are 62.7 ± 17.8 kg and 24.2 ± 3.9 kg/m² respectively. Most of the procedures have been done in 225 minutes. Intraoperative blood loss is around 50 mL, with one patient loss his blood around 500 mL. Describing the postoperative outcomes, the average length of stay of the patients is 8.6 ± 1.6 days with average visual analog score 3.5 ± 1.1 on the first post-operative day. The average time needed to recover to daily activity is around 7.3 ± 1.8 days.

**Conclusion:** This study describes our initial experience on laparoscopic pyeloplasty in Persahabatan General Hospital Jakarta, Indonesia. The data showed comparable results with other reviews. We need to bring further improvement to our results along with our experience.

**Keywords:** laparoscopic pyeloplasty, UPJO, surgery, management.

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**Non-contrast computed tomography in supine percutaneous nephrolithotomy: are postoperative outcomes related to the value of hounsfield unit?**

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**Introduction:** Hounsfield unit (HU), a parameter from Computed Tomography (CT) related to the density of the stone, represent the gold standard imaging before supine Percutaneous Nephrolithotomy (PCNL). This study aimed to evaluate the relation between HU and postoperative outcomes after supine PCNL.

**Methods:** Retrospective data were collected from 148 supine PCNL patients in Jombang General Hospital between April 2017 to April 2018. We include patients with a percutaneous nephrolithotomy performed transperitoneal supine technique, without any preoperative dilatation, and without complications requiring additional procedures. We calculate the mean of patients age, sex, weight, body mass index (BMI), operative time, intraoperative blood loss, length of hospital stay, and VAS on the first postoperative day. We classify the results of data analysis divided into 4 categories based on HU value, low HU (<100 HU), medium HU (100-200 HU), high HU (200-300 HU), and very high HU (>300 HU). The results were then compared to the values of their respective categories.
ABSTRACT

Analysis showed no significant correlation between the size of kidney stone and hemoglobin level reduction with p-value of 0.344 (p>0.05).

Conclusion: There was no significant correlation between the size of kidney stone and hemoglobin level reduction following PCNL procedure.

Keywords: kidney stone, PCNL, stone burden, hemoglobin.

Largest single center by single surgeon experience of urethroplasty in Malaysia

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Introduction: Urethroplasty is the gold standard management of urethral stricture, which can be divided into 2 technique; primary anastomosis urethralplasty and substitution urethralplasty. In Malaysia, this procedure is rarely performed by most urologist because of the infrequent cases and longer duration needed as compare to endourology procedure. We believed our hospital is the only center that doing this procedure regularly since the year 2016. The study aims to analyze the demographic data, causes of urethral stricture, type of urethroplasty perform and immediate outcome of all patient underwent urethroplasty procedure in Department of Urology, Hospital Tengku Ampuan Afzan, Kuantan, Pahang, Malaysia.

Methods: Retrospective review of hospital records for all patient underwent urethroplasty procedure from January 2016 to March 2019. Data transferred to proforma included age of patient, race, causes of injury either trauma, infection or iatrogenic, successful of surgery, immediate complication, uroflowmetry after removal of catheter, International Prostate Symptom Score (IPSS), International Index of Erectile Function 5 (IIEF-5) score and quality of life due to urinary symptom (QoL) score.

Results: Total of 32 patients underwent this procedure where 25 had anastomatic urethroplasty and 7 buccal mucosa graft substitution urethroplasty. Mean age of patient was 47 years old. Etiology of urethral injury was trauma in 20 patients, iatrogenic 6 patients and infection 6 patients. The success rate was 93.75% with only 2 patients had complication that leads to reuse of suprapubic urinary catheter. In general, mean Qmax postoperatively was 20.90ml/sec and overall mean score for current IPSS and QoL were 7 and 1.97 which correlate with mildly symptomatic for lower urinary tract symptom (LUTS). The mean IIEF-5 score was 15.72 that considered as mild to moderate erectile dysfunction.

Conclusion: Currently, majority of our patient was happy with their urinary function after surgery. The complication rate and immediate parameter outcome were equivalent to other centers worldwide. We always audit our performance and improve in any deficiency in order to become one of the well-known centre for urethroplasty.

Keywords: urethroplasty, erectile, dysfunction, quality of life.

Fresh graduate urologist in eastern Indonesia: first-year surgery experience

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2019. Inclusion criteria were the availability of preoperative HU and stone-complexity in CT. HU was categorized into three groups: group 1 (<500), group 2 (500-1000), and group 3(>1000). Postoperative outcomes were defined as stone-free-rate (SFR), estimated blood-loss (EBL), and complications using the three-grade Clavien-Dindo-score modified by CROES. The data were analyzed using the chi-square and Pearson correlation test.

Results: A total of 48 patients who met inclusion criteria were enrolled in this study. The higher percentage of stone complexity was in group 3 (51.9%). Total SFR was 79.2%. SFR in each HU group were 71.4% (group 1), 87.5% (group 2), and 76.0% (group 3). Mean EBL was 124,06±106.069 ml. 25% of patients have a slight complication (grade 2), where 2.1%(group 1), 6.2%(group 2), and 16.7% (group 3 of HU). HU showed non-significant correlations with stone complexity (p=0.258), SFR (p=0.583), EBL (p=0.818), and complications using Clavien Dindo-score (p=0.694). Stone complexity showed a significant correlation with SFR (p=0.000).

Conclusion: HU alone was not a predictor for SFR after supine PCNL and were not associated with stone complexity, EBL and complications using Clavien-Dindo-score. But stone complexity was associated with SFR. Further research is needed to find out more about the role of HU in predicting SFR, EBL, and complications with larger sample size and taking into account other factors such as the number and size of stones.

Keywords: stone, CT-scan, operative, management.

Correlation between the size of kidney stone and hemoglobin level reduction following PCNL procedure

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Introduction: An average of 1-12% worldwide population suffer from kidney stone. This the third most prevalent cases in urology department. Percutaneous Nephrolithotomy (PCNL) is an invasive method commonly used for kidney stone removal. The procedure directed to reach the pelviccalyceal system and intrarenal manipulation often cause iatrogenic injury to the surrounding blood vessels. Several studies have reported a significant hemoglobin level reduction following PCNL procedure. This study investigates the characteristics of patients and investigates the correlation between the size of the kidney stone and hemoglobin level reduction following PCNL procedure.

Methods: This analytical correlative cross-sectional study collected a series of consecutive samples by reviewing the medical records of patients with kidney stone undergoing PCNL procedure at Biomedika Hospital Mataram from January 2016 to June 2019 whose medical record is completed. Bivariate analysis was performed using Spearman Correlation test.

Results: From 32 patients involved, the age ranged from 29-76 years, predominated by male, came with the initial chief complaint of colic pain, mostly presented with staghorn stone with the largest diameter of 4.6 cm, the steepest reduction in hemoglobin level of 5.2 g/dL, and 15 patients presented with hydrenephrosis. The mean duration of surgery was 96.67 minutes and the length of post-surgical hospital stay was 2 days. Bivariate analysis showed no significant correlation between the size of kidney stone and hemoglobin level reduction with p-value of 0.344 (p>0.05).

Conclusion: There was no significant correlation between the size of kidney stone and hemoglobin level reduction following PCNL procedure.

Keywords: kidney stone, PCNL, stone burden, hemoglobin.
We will present a video presentation about a case follow up. We found 9.8 mm anteroposterior diameter after 3 months of follow up. There were no significant complications observed in this patient. We found 9.8 mm anteroposterior diameter after 3 months of follow up.

**Conclusion:** LP is safe and effective procedure for treatment of PUJO in children. LP, which is equivalent to that seen following open pyeloplasty with the additional benefits of reduced hospital stay and time to recovery.

**Keywords:** laparoscopy, laparoscopic pyeloplasty, transperitoneal, pelvic-ureteric junction obstruction

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**Primary endoscopic realignment with rigid endoscope in male patient with pelvic fracture urethral injury**

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**Introduction:** Injury to the lower urinary tract in major trauma, especially urethral disruption has been reported in 3.5% to 28.8% of patients with pelvic fractures in men. The immediate management of pelvic fracture urethral injuries (PFUI) remains a controversial and challenging decision for urologists. The success rates for primary endoscopic realignment (PER) after PFUI are wide-ranging 11–86%. In this case reported 36 years old male with PFUI undergo PER.

**Case:** PER is performed to aim urethral patency with no need for further intervention. Patient has already undergone percutaneous cystostomy with 18 Fr catheter. After 7 days PER done in supine position. With 8,6 Fr rigid ureteronephroscope trough urethra and 17 Fr rigid urethroscope trough cystostomy hole. Place the guidewire trough cystostomy to the urethra with guiding of rigid ureteronephroscope to bring out the guidewire from urethra and then placing 14 Fr silicone catheter insertion trough guide wire and using 18 Fr catheter for the cystostomy. After 5 weeks undergo pericatheter urethrocystography with result is partial bulbar urethral stricture.

**Conclusion:** Primary endoscopic realignment is a procedure that is still challenging to do in cases of urethral injury

**Keywords:** urethral trauma, primary endoscopic realignment, pelvic fracture urethral injuries, percutaneous cystostomy.

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**Minimally invasive percutaneous nephrolithotomy (MPCNL) vs. standard percutaneous nephrolithotomy (PCNL): a meta-analysis**

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**Introduction:** Theoretically, MPCNL produces less trauma to the organ, and with a lower complication rate compared to PCNL. The meta-analysis we made based on the available evidence base, it is for assessing the effectiveness and safety of MPCNL compared to PCNL for the treatment of renal stones.

**Method:** Systematic reviews were done in accordance with the PRISMA guideline requirements, a literature review was conducted in March 2019 used PubMed, Science Direct, Cochrane Library. Publishing year of at least 10 years with an adult population. And the meta-analysis is used using Rev Manager V.5.3.
**ABSTRACT**

**Results:** A total of 367 cases of MPCNL and 380 cases of Standard PCNL from 6 studies. The stone-free rate meta-analysis did not get a significant difference between MPCNL and PCNL (OR: 1.02; 95% CI 0.66–1.59; p = 0.92), in MPCNL there was a smaller reduction in hemoglobin (MD -0.92g / L; 95% CI -1.50 to –0.34; p = 0.002) and also the incidence of blood transfusion (OR 0.14; 95% CI 0.05–0.41; p = 0.0004), and duration of treatment in the hospital had a shorter time (MD -1.46 days; 95% CI -2.45 - 0.48; p = 0.004) but has a longer operating time (MD 15.00 min; 95% CI -8.24 - 21.76; p = 0.0002). Postoperative complications did not get significant results between the two (P = 0.60 and P = 0.92).

**Conclusion:** MPCNL has better effectiveness and safety than PCNL in terms of minimal bleeding, transfusion incidence, length of hospital stay.

**Keywords:** Percutaneous nephrolithotomy, PCNL, MPCNL.

**Characteristics of penile cancer at tertiary center hospital: a nine years study from 2010-2019**

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**Introduction:** Penile cancer is an aggressive disease, with significant psychological and social impact. In developing countries, penile carcinoma remains a serious problem. Incidence in India, Africa, and South America ranges from 2.3-8.3/100,000. In Indonesia there is no data regarding incidence rates; Tranggono and Umbas found 69 patients at 2 public hospitals in Jakarta in the period of 1994 to 2005. Penile cancer affects mainly older men between 50-70 years of age. In this study, we try to determine the characteristics of penile cancer in our hospital. This study aimed to assess the epidemiological characteristics of penile cancer in the city of Bandung, its associated risk factors and clinical manifestations.

**Method:** This was a descriptive retrospective study conducted at Hasan Sadikin Hospital Bandung from January 2010 to 2019. The study included all penile cancer patients that came to Urology Department. The variables such as age, history of circumcision, smoking habit, age of onset, operation, histopathological results, history of multiple sex partner, location of the tumor, comorbidities, and staging are collected from medical record and analysed descriptively.

**Result:** We found a total of 13 penile cancer patients from January 2010-2019. Ages ranged from 28-67 years old, with 50.69 years on average. Most of them are cigarette smokers (69.23%), had a history of multiple sex partners (44.44%), and uncircumcised (53.85%). From the location of the tumor, 38.46% patients were in the penile shaft. Hypertension and diabetes Mellitus were found in 15.38% patients. All of our patients came at an advanced stage. Histopathologically, 84.62% had squamous cell carcinoma. 61.54% patients underwent partial penectomy.

**Conclusion:** The characteristics of penile cancer patients found in our hospitals are on average 50.69 years old, with the most risk factors found were smoking and uncircumcised, from histopathological results most of them were squamous cell carcinoma. Patients come to seek medical treatment at an advanced stage.

**Keywords:** penile, cancer, epidemiology, study

**Kidney protective effect of Urena lobata leaves extract on hyperglycemic rat**

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**Introduction:** Chronic hyperglycemia in diabetes mellitus will increase Reactive Oxygen Species (ROS) that contribute to occurrence of diabetic nephropathy which is a common cause of end-stage kidney failure and needs to kidney transplantation. Urena lobata is the plant can be found in Indonesia and has been used to cure many diseases. This study aims to know the effect of U. lobata leaves extract on the inhibition of diabetic nephropathy complication.

**Method:** This study uses control group post-test only with male Sprague Dawley rats that induced by high fructose diet (HFD) and single–dose streptozotocin 25 mg/kg BW intraperitoneal. Rat was administrated orally with aqueous extract of U. lobata leaves in concentrations of 250, 500 and 1000 mg/kg bw for 4 weeks (each group n= 5). After surgical procedure, kidney organ was collected then Superoxide Dismutase (SOD), Malondialdehyde (MDA), Tumour Necrosis Factor-alpha (TNF-α) kidney level and glomerular diameter were examined. The data was analyzed using ANOVA test continued with LSD test (p<0.05).

**Result:** Each dose of U. lobata leaves extract was able significantly (p<0.05) increase SOD 30%, 60%, and 90% and decrease MDA 30%, 60%, 70% while TNF-a kidney level decreased 30%, 40%, and 60% compared to control group. Each dose also significantly (p<0.05) has the ability inhibit increase in glomerular diameter approximately 12% compared to the control group. U. lobata leaves extract contain active compound such as fitosterol and flavonoid groups that act as antioxidant and anti-inflammatory.

**Conclusion:** U. lobata leaves extract can inhibit diabetic nephropathy complication by increase SOD and decrease both MDA, TNF-a kidney level and also inhibit increase glomerular diameter.

**Keywords:** Urena lobata, SOD, MDA, TNF-A, glomerular diameter, nephropathy, diabetes.

**Validity and reliability tests for administration of kidney disease quality of life-short form in Indonesian version**

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**Introduction:** Patients with chronic kidney disease will endure various stressors in daily living which may decrease their quality of life. Poor quality of life correlates with increased mortality and morbidity. This research aims to adapt the KDQOL-SF questionnaire into Indonesian and to evaluate the reliability and validity of the questionnaire in healthy subjects in Indonesia.

**Material & methods:** Previously translated (into Indonesian KDQOL-SF questionnaire was given to 33 healthy subjects at Dr. Cipto Mangunkusumo General Hospital. Respondents were over 18 years old and were able to speak Indonesian orally and in written form. Reliability was
measured using Alpha Cronbach's intraclass correlation coefficient and internal consistency reliability. Validity was evaluated using Pearson's correlation test. Results: Out of 33 respondents, majority of subjects were male (81%) with mean age 47.4 ± 13.7 years old. Highest score was in social support aspects with mean score 99.48 ± 2.95, while the lowest score was vitality aspect with mean score 63.28 ± 11.61. Alpha Cronbach's score was between 0.580-0.999 and Pearson's correlation coefficient between 0.405-0.976 with P <0.05. Conclusion: KDQOL-SF questionnaire, which was translated into Indonesian, was valid and reliable to be used in evaluating patients' quality of life before kidney transplantation in Indonesia. Keywords: validation, questionnaire, kidney, quality of life.

Phalloplasty and urethroplasty in adult with disorder of sex developments (DSD): a case report

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Introduction: Disorder of sex developments is defined as congenital conditions associated with atypical development of chromosomal, gonadal, or anatomical sex. Conflict in psychosexual development is the most common problem found in DSD. Because of conflict in psychosexual development, cause for DSD should be confirmed and management should be planned. Phalloplasty is one of sexual reassignment management. Neophallus is constructed from a flap. The most common technique is radial forearm free flap (RFFF). Due to its complicated process, it takes several stages of surgery. Urethroplasty also should be performed to make patient able to voiding while standing. Surgery aims to make ambiguous external genitalia compatible with assigned gender, preventing urinary obstruction or infections, preserving sexual and reproductive potentials, and maximizing anatomy to enhance sexual function. In this article, we aimed to report our experience on the first phalloplasty and urethroplasty in adult with disorder of sex development in Indonesia.

Case Presentation: A 25 years old male with disorder of sex developments 46 XY admitted to our hospital. He planned undergo phalloplasty and urethroplasty with radial forearm free flap technique. Eight months after surgery, two urethrocutanous fistulas developed. Patient underwent surgery to urethroscope and fistulas repairment. Second stage of phalloplasty also was done by cartilage insertion to neophallus. It aimed to make a semi-rigid state of neophallus. One month later, urethroscopy and uroflowmetry were done. There was no new fistula or stricture developed. Qmax and Qmean were 33.8 ml/s and 14.0ml/s. Conclusion: Many techniques have arisen, one of them with RFFF. As seen in our patient, this technique only causes minimal complication. Neophallus and neourethra also function correctly. Keywords: Phalloplasty, urethroplasty, radial forearm free flap, sex reassignment.

One stage rotation flap scrotoplasty and orchidopexy for the correction of ectopic scrotum: a case report

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Introduction: Ectopic scrotum is a particularly rare congenital malformation of the scrotum and commonly associated with other congenital malformations. Case Description: A 2-year-old boy was presented with ectopic scrotum, low lesion imperforate anus, spina bifida and pubic diastasis since birth. We aimed to determine a successful one-stage technic operation which in most cases have been done using two stages of repair. We performed correction of the ectopic scrotum and concomitant bilateral orchidopexy in one stage of surgery. This procedure is relatively simpler to perform and gives out a favourable cosmetic result and adequate testicular descent after six-month postoperative follow-up. This case report was approved by Ethical Committee Faculty of Medicine Universitas Indonesia and the patient's parents have already given their consent. Conclusion: Ectopic scrotum which was very well-oriented with other congenital malformations such as anorectal malformation, spina bifida or pubic diastasis as presented in this case could be corrected using a single-stage rotational flap scrotoplasty and bilateral orchidopexy with favorable cosmetic results and adequate testicular descent. Keywords: ectopic, scrotum, surgery, management.

Surgical management of traumatic penile amputation: a case report

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Introduction: Penile amputation is urological emergency that must be addressed quickly to maximize functional outcomes. Unfortunately, there is limited experience and publication of case reports that describe the successful replantation of penis after incomplete amputation. At this moment we present a case of penile amputation caused by grass cutting machine and discuss its surgical management.

Case Summary: A 33 years old Indonesian male presented to emergency department for incomplete penile amputation six hours after injury. The patient has no prior medical history and was experienced penile amputation caused by grass cutting machine. He immediately underwent non-microsurgery reconstructive replantation of the penis reattaching all visible vascular, corporal, and fascia layers. After the replantation, the patient recovered well and showed survival of near-normal appearance and sensitivity of penis. Adequate Doppler arterial flow and color were noted in the distal end of the anastomosis. Patient was discharged on the fifth day after surgery. Hereby we report a case of incomplete traumatic penile amputation and successful outcome of non-microsurgery penile replantation.

Conclusion: The use of non-microsurgical replantation is the treatment of choice in incomplete penile amputation and have good outcome involves adequate functional and cosmetic restoration. Keywords: traumatic, penile, surgery, management.
Testicular tunica vaginalis grafting for the treatment of Peyronie’s disease: a case report

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Introduction: Peyronie’s disease (PD) is a progressive fibrotic tissue disorder of the penile tunica albuginea. PD can cause the formation of fibrous plaques, penile deformity, pain during erection, penile curvature, and erectile dysfunction (ED). Surgical treatment is the gold standard in PD because it is fast and reliable. There are many surgical options for PD such as plication procedures, incision and grafting procedures, and implantation of penile prosthesis. There are three types of graft material have been reported: autologous graft, xenograft, and synthetic graft. Considering the higher rate of infections, inflammatory reactions, and allergies, synthetic grafts are rarely used. Autologous graft is currently widely used because of the incidence of inflammatory reactions and low allergic reactions. Tunica vaginalis grafts are rarely used widely. Testicular tunica vaginalis was first reported as an autologous graft in 1980.

Case report: A 53-year-old man comes to the urology clinic at Sidowaras Hospital complaining of pain when the erection and erection cannot be straight. This complaint has been felt since a few months ago but the patient ignored it. An assessment of ED with International Index of Erectile Function (IIEF) -5 scores obtained a score of 12 (mild-moderate dysfunction). Physical examination found a curvature of the penis around 70° and in palpation there was a hard lump on the dorsal penis. After the diagnosis is made, testicular tunica vaginalis grafting procedure is performed on this patient. At a 6-month re-evaluation after surgery, patient-reported reduced penile pain on erection with improved erectile function (IIEF) -5 score 21 (mild dysfunction).

Conclusion: Testicular tunica vaginalis grafting was chosen because it is feasible and safe for patient with PD. Testicular tunica vaginalis Grafting used due to their easy incorporation into host tissue and few incidences of local inflammatory reaction.

Keywords: Peyronie’s Disease, grafting, erectile dysfunction.

Buccal mucosa graft for vaginoplasty: a case series

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Introduction: Variety of procedure had been offered for vaginal replacement and reconstruction surgeries yet they were shown to have many disadvantages while ideal system should provide good cosmosis, low maintenance, minimal morbidity, and allow for successful sexual intercourse. Buccal mucosa grafting (BMG) appear in the recent decade as the new innovative procedure with naturally moist epithelial surface which provides natural lubrication for sexual activity. It offers better-hidden scarring and lack of hair-bearing epithelium which has good healing process and histologically similar and stable to the natural vaginal tissue with less granulation tissue and infection present.

Method: In clinical setting, a non-CAH (Congenital Adrenal Hyperplasia) patient with clitoromegaly and low confluence urogenital sinus malformation and another one with vaginal stenosis and urethrovaginal fistula with history of cloacal anomaly were being treated with buccal mucosal graft (BMG) vaginoplasty.

Results: Following previous method for BMG based vaginal reconstruction, we used the BMG to newly made vaginal cavity created with two-finger-wide dilatation of introitus vagina. Patients were followed up and routinely check-up for the first year with no complication reported.

Conclusion: Buccal mucosal graft is potential option for vaginoplasty to increase sufficient diameter of vagina as shown in both of our cases.

Keywords: vaginal, graft, surgery, management.

The Erection Conundrum: Risk Factors for Erectile Dysfunction Among Elderly Men in Lamongan

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Introduction & Objectives: The most common sexual problem affecting the general population of men is Erectile Dysfunction (ED) with a global estimated number of over 100 million. It affects the biological, psychological, and social aspect of life which can cause frustration, depression, and anxiety. Unfortunately, the attention towards the disease in Indonesia is often overlooked as evidenced by the lack of studies regarding the prevalence and risk factors for the disease. This study aims to evaluate possible risk factors of Erectile Dysfunction among elderly males in Lamongan, East Java.

Materials & Methods: This is a quantitative study with an analytical observational design, performed using a case-control approach. Respondents consisted of male inpatients as well as outpatients aged 40 years or more in Ngimbang General Hospital evaluated using the International Index of Erectile Function (IIEF) questionnaire. The patient’s comorbid data are taken from the Medical Record to ensure a proper diagnosis. The acquired data are then analyzed using the ordinal logistic regression method.

Results: A total of 174 men were evaluated. There are 62 people with no ED (35.6%), 39 people with mild ED (22.4%), 35 people with mild to moderate ED (20.1%), 16 people with moderate ED (9.2%), and 22 people with severe ED (12.6%). Significant risk factors are age (OR: 1.29; CI: 1.23–1.37), Diabetes (OR: 6.56; CI: 2.77–15.56), and hypertension (OR: 5.19; CI: 2.27–11.88) (all, p < 0.05); whereas dyslipidemia and smoking habit are insignificant (p>0.05).

Conclusion: Age, diabetes, and hypertension are significant risk factors for erectile dysfunction.

Keywords: erectile dysfunction, risk factors, elderly, diabetes mellitus, hypertension.
The relationship of urinary tract stones with the incidence of urinary tract infections in Mataram City General Hospital 2017

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Introduction: Urinary tract stones are still one of the most common health problems in the urology in the world, including in Indonesia. One complication of urinary tract stones is the presence of an infection of the urinary tract. This aim was to determine the relationship of urinary tract stones with the incidence of urinary tract infections in the General Hospital of Mataram City in 2017.

Method: This study was an observational analytic with a cross sectional study design. Patient data was taken from the Medical Record of Mataram City General Hospital and presented in table form. Chi-square test was used to assess relationship between urinary stone and incidence of urinary tract infection.

Result: The results showed that the sample obtained was 81 people. The number of patients who experience urinary tract stones is 55 men and women are 26 people, and the number of patients who experience urinary tract stones with the incidence of urinary tract infections is as many as 57 (70.4%) people. Analysis of the test of the relationship between urinary tract stones and the incidence of urinary tract infections was obtained p <0.034 with Prevalence Ratio = 2.96.

Conclusion: There is a significant relationship between urinary tract stones and urinary tract infections.

Keywords: Urinary tract stones, urinary tract infections

Primary urothelial carcinoma arising in the penile urethra: a case report

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Introduction: Primary urethral carcinoma is very rare accounting for less than 1% of all malignancies. In males, these occur most often in the bulbomembranous urethra, however can occur in the penile and prostatic urethra to a lesser degree. We present a rare case of a primary penile urethral carcinoma managed with total penectomy and perineal urethrostomy.

Case report: An 89-year male presents with painless macroscopic haematuria. A single-center retrospective study of 38 patients who underwent repair. The median age at time of operation was 29 (range 17 to 68). Mean follow up was 23 months (range 0 to 120 months). 10 patients (26%) did not attend the first follow up appointment. 58% of cases initially presented to our service with obstructive voiding and 8% with recurrent urinary tract infections, secondary to stricture disease, making this the most common complication following childhood repair. 4 patients presented with acute urinary retention requiring drainage with a suprapubic catheter, 4 submitted with urethrocatheteraneous fistulae (UCF), 2 with symptoms of urine spray, 2 with residual hypospadias and 1 with hair extruding from the urethral meatus. Average urine flow was 8.4ml/sec before and 27.7ml/sec after adult revision surgery. In total, 32 patients completed staged repair with buccal mucosal grafts and 1 patient underwent single-stage repair in the form of a Heineke-Mikulicz procedure. Of the remaining 5 patients, 3 were lost to follow up after their first stage repair and 2 decided not to proceed with second stage repair. Complications were seen in 10 patients (26%), with 4 cases of UCF, 3 of stenosis (1 of distal and 1 of proximal urethrostomy stenoses, both requiring interval revision surgery), 2 of graft contracture and 1 of chordee.

Conclusion: Adults undergoing hypospadias revision surgery are a complicated group to manage. Furthermore, the relatively young patient population makes follow up challenging. However, loss to follow up may in itself represent a good outcome.

Keywords: hypospadias, adult, surgery, outcome.

Hypospadias revision surgery in adults

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Introduction: Hypospadias is a disorder of development of the penis in which the urethra does not open from its usual location in the head of the penis. This study aims to evaluate the outcomes of hypospadias revision surgery in adults who have presented with complications following childhood hypospadias repair.

Method: A single-center retrospective study of 38 patients who underwent reconstructive surgery between 2004 and 2019 for complications following hypospadias correction surgery in childhood.

Result: The median age at time of operation was 29 (range 17 to 68). Mean follow up was 23 months (range 0 to 120 months). 10 patients (26%) did not attend the first follow up appointment. 58% of cases initially presented to our service with obstructive voiding and 8% with recurrent urinary tract infections, secondary to stricture disease, making this the most common complication following childhood repair. 4 patients presented with acute urinary retention requiring drainage with a suprapubic catheter, 4 submitted with urethrocatheteraneous fistulae (UCF), 2 with symptoms of urine spray, 2 with residual hypospadias and 1 with hair extruding from the urethral meatus. Average urine flow was 8.4ml/sec before and 27.7ml/sec after adult revision surgery. In total, 32 patients completed staged repair with buccal mucosal grafts and 1 patient underwent single-stage repair in the form of a Heineke-Mikulicz procedure. Of the remaining 5 patients, 3 were lost to follow up after their first stage repair and 2 decided not to proceed with second stage repair. Complications were seen in 10 patients (26%), with 4 cases of UCF, 3 of stenosis (1 of distal and 1 of proximal urethrostomy stenoses, both requiring interval revision surgery), 2 of graft contracture and 1 of chordee.

Conclusion: Adults undergoing hypospadias revision surgery are a complicated group to manage. Furthermore, the relatively young patient population makes follow up challenging. However, loss to follow up may in itself represent a good outcome.

Keywords: hypospadias, adult, surgery, outcome.


ABSTRACT
Regional urethroplasty - a single-center experience (Oral Presentation)

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Introduction: Reconstructive urology is a growing field. There is increasing interest in urethroplasties as it is now the gold standard treatment for urethral strictures. There is limited research in the feasibility and safety of performing urethroplasties in regional centers. The study aims to analyze all reconstructive urology cases performed by a single surgeon with a focus on urethroplasties in Toowoomba Queensland, Australia from 2017-2019.

Methods: A prospective database was analyzed to obtain data such as age, body mass index, smoking status, previous procedures, location and cause of stricture. Post-operative outcomes measured included complications and follow up flow rates at 3 and 6 monthly intervals for up to 3 years. Our data is analyzed and compared against international standards.

Results: 73 patients underwent a reconstructive urology procedure under a single surgeon in Toowoomba, Australia of which 60 patients had a urethroplasty. Of the urethroplasty patients, 82% had had at least 1 previous stricture-related procedure in the past. Thirty-five patients (58%) had previous urethral dilatations (ranging between 1 – 40) and 15 patients (25%) had a previous urethroplasty (ranging between 1-4). The causes of the strictures include idiopathic (28%), iatrogenic (26%), hypospadias (11%), radiotherapy (8%) and other causes (15%). Several methods of urethroplasty were performed including: Barbagli, McAnnich, Asopa, Kulkarni and Johansson to name a few. Our recurrence rate was 10% (6 patients). All recurrences occurred in the anterior urethra. 4 of these patients subsequently underwent redo urethroplasty and all have had no recurrence to date. Post-operative flow rates at 3 months revealed an overall improvement of 15 mL/s.

Conclusion: Urethroplasty is a safe and effective procedure that produces good surgeon and patient outcomes and can be performed in a regional center.

Keywords: urethroplasty, experience, outcome, surgery.

Type IA urethral duplication: a case report

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Introduction: Urethral duplication is a rare congenital malformation mainly affecting men and boys. Although several theories have been proposed to describe this condition, the actual mechanism of this disorder is still not clear. The most frequent anomaly occurs in the sagittal plane, in which the duplicated urethra is in either dorsal or ventral position concerning the orthotopic urethra. The therapeutic management of these conditions is complicated and depends on the presence of symptoms as well as the type of anomaly.

Case Report: We present a case of urethral duplication in a two years old male child. The malformation was characterized by the presence of the meatus in the dorsal penoscrotal and accompanied by the sign of infection in it. Urethrography showed contrast stopped filling 2 cm from the meatus in the dorsal penoscrotal with a total dead-end impression as an accessory urethra and there was no abnormalities in the principal urethra looked from the contrast filled the penile urethra, bulbous urethra, prostatic urethra, and bladder. That was the form of Effmann Type IA urethral duplication. The dorsal accessory urethra was excised entirely without complication and he remains symptom-free five months after surgery.

Conclusion: In summary, urethral duplication is a rare clinical condition. It has many variants that were classified by Effman. Management depends on the anatomy of the duplication involved and the patient's clinical symptoms.

Keywords: urethral, malformation, surgery, management.

Penile glans necrosis following penile sclerosing lymphogranuloma repair: a rare case

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Introduction: Ischemia or necrosis of the penile glans is a rare condition, commonly as a result of trauma, diabetes mellitus, circumcision, vasculitis, and vasoconstrictive solutions administration. Sclerosing lymphogranuloma of the penis is mainly a complication arising from injection of oil-based. No previously reported case of penile glans necrosis has been reported as the result of penile sclerosing lymphogranuloma repair.

Case presentation: A 45-year-old man presented with a hardened penile skin after injection of unknown liquid material to his penile skin 10 years earlier. The abnormality made him difficult to perform sexual activities because of pain during sexual intercourse. The suprapubic area was also affected, with a tender mass similar to the penile skin. First stage penile reconstruction using Cecil’s two-stage technique was performed. The hardened skin was very deep, it was difficult to find the surgical plane between the hardened skin and the cavernous body. After seven days, the patient noticed his penile glans was blackened, and he complained about less sensation on the glans. In the fourteenth day, debridement of the necrotic glans surface performed, and healthy glans tissue was found beneath the necrotic tissue. After six months, the second stage reconstruction was performed with a satisfying result.

Discussion: Sclerosis lymphogranuloma of the penis is an uncommon condition found mostly in South East Asia, the Middle East and Eastern Europe. Reconstruction can be performed by excising all the affected tissue, and closure of the defect using flaps or grafts. In this case presentation, penile glans necrosis was found after the first stage of repair. The precise cause of the necrosis was not known, it might have been caused by disruption of the blood supply to the penile glans surface. Debridement of the necrotic tissue revealed healthy tissue.

Conclusion: Necrosis of the penile glans is a rare condition after reconstruction of sclerosing lymphogranuloma of the penis. Debridement of the necrotic tissue can be a good choice to correct this problem.

Keywords: necrosis, glands, penis, management.
Ectopic ureter with multicystic dysplastic kidney at Sanglah General Hospital: a case report

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Introduction: Ectopic ureter is a condition when the ureter does not connect with the bladder. In males, the most common site is the posterior urethra. Other sites include seminal vesicles, vas deferens, bladder neck, prostate, ejaculatory duct, and epididymis. Clinical presentation is usually infection without incontinence. In females, the ureter can enter from bladder neck to the perineum, vagina, uterus, and even rectum. One of the classic symptoms is urinary incontinence. Ectopic ureteral insertions are most commonly associated with duplex kidneys, but an ectopic ureter can also drain a single system, which is generally dysplastic or poorly functioning, like in multicystic dysplastic kidney (MCDK). It characterized by multiple noncommunicating cysts of varying sizes with an absence of identifiable normal renal parenchyma.

Case Presentation: A 3 years old girl referred from a pediatrician to the urology clinic at Sanglah General Hospital with chief complaint cloudy urinary since 1.5 years ago. No fever, no dysuria, no hematuria, no incontinence, no allergies. In her past medical history, she had recurrent urinary tract infection and febrile. Physical examination and laboratory findings were normal. Ultrasonography showed multiple cystic and thinning of the renal cortex that characterized multicystic dysplastic kidney. Subsequently, we performed voiding cystourethrogram, got vesicoureteral reflux grade V and ectopic ureter. In order to identify the insertion of the ectopic ureter, we performed cystoscopy with retrograde pyelography and ureterorenoscopy under general anesthesia. It showed an ectopic ureter opening was located in the proximal urethra above the external sphincter. Then, we made lumbotomy incision and ureterorenoscopy through the renal pelvis. After the surgical procedure, the patient was well. Hematuria was resolved. The wound, BUN 10.7 mg/dL, and serum creatinine 0.37 mg/dL.

Conclusion: The incidence of ectopic ureter with multicystic dysplastic kidney is quite rare. Ectopic ureter with multicystic dysplastic kidney can be undetectable until it showed some symptoms. Complication may cause impaired kidney function. Although rare, MCDK can change into malignancy such as renal cell carcinoma, wilms tumor, and mesothelioma.

Keywords: Ectopic ureter, multicystic dysplastic kidney, hydronephrosis.

Horseshoe kidney with unilateral hydronephrosis secondary to ureteric atresia: a case report

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Introduction: Total prevalence of multiple congenital anomalies (MCA) was 15.8 per 10,000 births. Genitourinary anomalies were associated with MCA cases about 43.8% of the cases. The horseshoe kidney is one example of genitourinary anomalies related to the high incidence of MCA, which organ systems most commonly affected include the central nervous system, cardiovascular, musculoskeletal, and other genitourinary anomalies. Up to one third with horseshoe kidney also had hydronephrosis thought to be secondary to UPJ obstruction, ureteric stenosis or atresia.

Case presentation: A 10-month-old boy presented with a 5-month history of abdominal distention. On physical examination, there was a large non-tender cystic mass in the right upper abdomen extending down to the right lower abdomen. The other congenital anomalies on this infant were hydrocephalus, hypospadias, and bilateral undescended testis. Abdominal CT showed significant right hydronephrosis with megareter and mesenteric cyst. The horseshoe kidney was unclear. The surgical approach to the kidney was via a transverse upper abdominal transperitoneal incision. Exploration revealed a horseshoe kidney with cystic mass situated retroperitoneally on the right side, massive dilatation of renal pelvis and proximal 3 cm of ureter. Below the dilatation of the ureter there was markedly atresia. It was decided to perform nephroureterectomy on the right side considering its function. The postoperative average urine production is 25 ml/hour, no bleeding from surgical wound, BUN 10.7 mg/dL, and serum creatinine 0.37 mg/dL.

Conclusion: The horseshoe kidney is one example of genitourinary anomalies related to the high incidence of MCA. Up to one third with horseshoe kidney had hydronephrosis secondary to UPJ obstruction, ureteric stenosis or atresia, which can be managed by reconstruction surgery or nephroureterectomy considering the function of the affected side of kidney.

Keywords: Horseshoe kidney, ureteric atresia, nephroureterectomy, abdominal cyst.
The difference of pain in unilateral ureterolithiasis patients before and after double J stent insertion

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**Introduction:** Urolithiasis is the commonest urological disease. In some countries with a high standard of living, this rate is significantly high. Ureterolithiasis usually result in renal colic, ureteric obstruction, infection, and hydronephrosis. The disease most commonly presents itself with pain, as an episode of renal colic. Pain can be a significant impediment to an adequate quality of life. Ureteroscopic lithotripsy (URL) and extracorporeal shock wave lithotripsy (ESWL) are the most widely used techniques to clear ureteral stones with high degree of success. The routine insertion of ureteral stents over a prolonged period reduces the risk of ureteral obstruction and renal colic. The primary purpose of this study is to know the difference of pain in unilateral ureterolithiasis patients before and after double J stent insertion.

**Method:** This study used a cohort design. Thirty individuals with unilateral ureterolithiasis in Bhayangkara Hospital, Mataram were chosen as sample and obtained by using consecutive sampling. The brief pain inventory questionnaire and medical record reviews were used to collect data. Data analyses were performed using descriptive statistics and Wilcoxon test.

**Result:** The study results showed that there were significant differences in pain severity items (worst pain, average pain, and ongoing pain) and pain interference items (relationship with others, enjoyment of life, sleep, mood, walking ability, general activity, and normal work) before and after double J stent insertion with p-value less than 0.05.

**Conclusion:** Double J stent significantly reduce pain in person with ureterolithiasis

**Keywords:** pain, ureterolithiasis, double J stent.

A 14-year-old boy with 720 degrees testicular torsion and bilateral epididymal cyst leads to testicular necrosis, a reminder for the unwary: a case report

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**Introduction:** Testicular torsion refers to the torsion of the spermatic cord structures and subsequent loss of the blood supply to the ipsilateral testicle which primarily a disease of male adolescents and neonates. The vast majority of cases occur after age of 10 years with a peak at 12 to 16 years. Testicular torsion is an urological emergency that affected 1 in 4000 males below the age of 25 annually with left-sided predominance and rare bilaterality. Late presentation to the hospital is the major cause of delay in diagnosis and can lead to testicular necrosis.

**Case:** A 14-year-old male boy presented to the emergency department with sudden and severe episode of right testicular pain and hemiscrotal swelling that felt suddenly after woke up that morning. The pain has been felt for 5 hours before being admitted to the hospital. There was no history of urinary tract pathology. However, he mentioned a previous history of previous testicular pain after trauma. Physical examination was normal except for the right scrotum looks swollen, tender and visually higher than the left side with abnormal transverse lie position. The cremasteric reflex was absence and Phren sign was negative. With suspicion of testicular torsion a surgical exploration was performed. On investigation, the right testicle was tortured 720 degrees around the spermatic cord and had bluish discoloration in contrast to the normal-looking of the left testicle and both sides have cystic lesion on their upper pole. A right The orchedectomy was performed along with orchidopexy and epididymal cystectomy on the left testicle. Now the patient is on regular follow up for the last 2 months and is doing well.

**Conclusion:** This case report highlights that testicular torsion is a true surgical emergency because tests viability is inversely related to duration of torsion and in this case there may be an association between epididymal cyst and torsion of the testis. This hypothesis relies on the concept that the cord axis is disrupted by an epididymal cyst. It can be concluded that acute scrotal pain must be treated as a possible indicator of torsion regardless of co-existing pathology.

**Keywords:** testicular torsion, epididymal cyst, management.

Ischemic priapism related to chronic myeloid leukemia: a case report

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**Introduction:** Priapism is one of urological emergency case. There are 2 types of priapism, the ischemic priapism or low flow priapism and non-ischemic priapism or high flow priapism that differentiated by blood gas analysis and treatment option. Chronic Myeloid Leukemia is one of secondary priapism that could cause ischemic priapism.

**Case:** Male patient 24 years old came with painful erection for 19 hours before hospital admission. Patient start erection while did sexual intercourse with his partner, but after ejaculation the erection stay still and started to feel pain four hours after ejaculation. Physical examination found the penile was erected and prepuce edema around the gland penis. Further investigation then did to patient. Patient was checked for blood gas analysis and complete blood count (CBC) found ischemic with anemia and hyper-leukocytosis. Aspiration and irrigation procedure was done with adrenaline injection to corpus cavernosum. First aspiration found the blood color darker than usual. Dorsal slit incision also did to the patient to relieve the tension caused by swelling prepuce to gland penis. Six hours later priapism then relieved and the penis turns into flaccid. Patient penile then dressed by gauze to give round pressure and inserted with dower catheter. After priapism became flaccid patient then consulted to Hematology and Oncology Medicine (HOM) division for suspicious of leukemia affecting ischemic priapism. Bone marrow showed a Chronic Myeloid Leukemia.

**Conclusion:** Ischemic priapism is one of urological emergency that needs to know and do proper treatment as soon as possible. As the patient case with painful erection, ischemic, and hyper-leukocytosis caused of CML it could be diagnosed as ischemic priapism and treated well initially by aspiration irrigation and adrenaline injection procedure.

**Keywords:** priapism, ischemic priapism, chronic myeloid leukemia.
Recurrent female urethral stricture reconstruction using buccal mucosal graft: a case report

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Introduction: Female urethral stricture (FUS) is a rare case and can cause severe lower urinary tract symptoms (LUTS). About 0.32 – 4.9% female with urethral stricture can cause bladder outlet obstruction and LUTS. Signs of FUS varies, mostly include frequency, urgency, hesitancy, dysuria, poor flow, recurrent urinary tract infection and even urinary retention. FUS can occur because of trauma, infection, malignancy, radiation, and iatrogenic injury. Surgical treatment is the appropriate choice for urethral stricture. There are several surgical techniques that can be done on FUS such as urethral dilatation, urethral reconstruction using vaginal flaps, vaginal grafts, oral mucosal grafts, and others. Urethroplasty with vaginal flaps, vagina grafts and oral mucosal graft have significant success rates of 91%, 80%hasand 94% respectively.

Case: A 27-year older woman came to the emergency room at Sanglah General Hospital with chief complaint unable to urinate since 6 hours ago. During these 3 months, patient always felt difficult to urinate because there is a narrowing of the urethra. In the previous history, patient-first complaints arose 2 years ago and carried out with trocar cystostomy and then proceed with urethrotomy internal. One year ago, the patient complaint was recurred and carried out with trocar cystotomy, then continued with dorsal vaginal graft urethroplasty. After 3 months of surgery, the patient had vaginitis, so the results of the previous urethroplasty are damaged and repeated narrowing. Physical examination and laboratory findings were normal. From her medical condition, we decided to performed open cystotomy and then urethroplasty using buccal mucosal graft. After the surgical procedure, it showed good results.

Conclusion: Urethroplasty using oral mucosal graft has shown an excellent outcome in case of recurrent female urethral stricture. Although all types of urethroplasty have a high success rate but it still needs further evaluation whether one technique is superior to another.

Keywords: female urethral stricture, urethroplasty, buccal mucosal graft.

Factor associated with post-operative hospital length of stay in patient with benign prostatic hyperplasia after transurethral resection of prostate gland

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Introduction: Benign Prostatic Hyperplasia (BPH) is the most common cause of lower urinary tract obstruction in the elderly men above 50 years old. Transurethral resection of prostate (TURP) is one of surgical therapy options which required to be admitted in the hospital. TURP cause serious short and long-term complications which significantly affects patient’s recovery and prolonging hospital stay. This study has aimed to identify factors associated to length of stay (LOS).

Methods: This study is an observational analytic study with cohort retrospective design. Data were collected from medical record included patient’s age, preoperative prostate volume, operative duration, weight of prostate resected, post-operative complication, and LOS.

Results: Total of 116 BPH patients who underwent TURP at Prof. Dr. Soekandar Hospital with no premorbid disease between April 2017 until April 2019. The overall mean (range) LOS was 4.22 (3-6) days. There was strong correlation between LOS with preoperative prostate volume (p=0.000; r=0.673), weight of prostate resected (p=0.000; r=0.718) and post-operative complications (p=0.000; r=0.635). There was low correlation between LOS with patient’s age (p=0.000; r=0.466) and operative duration (p=0.000; r=0.558). Post-operative complications such as urine retention, bleeding and infection increase LOS duration for the patient (5.5, 6 and 5.25 days respectively) compare to LOS of patient with no complication (3.95 days) (p<0.05).

Conclusion: Patient’s age, preoperative prostate volume, operative duration, weight of prostate resected, and post-operative complications had a significant correlation with LOS and post-operative bleeding had the most prolonged increase of LOS among other post-operative complications.

Keywords: benign prostatic hyperplasia, length of stay, transurethral resection of prostate.

Proteinuria and nephrolithiasis: an analytical study

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Introduction: Urinary proteins were known to play a role in the supersaturation and aggregation process in stone development. Recent studies showed relationship between urinary protein markers and urinary stone at the molecular level through electrophoresis processing. This study aims to determine the correlation of qualitative proteinuria in urinary and nephrolithiasis.

Methods: The study design is cross sectional study underwent in urology outpatient clinic in Kardinah general hospital. A total of 200 subjects grouped into stone and control. All patients underwent ultrasound examination as preliminary examination, then followed by urinalysis. Proteinuria was considered positive for protein value of +1 until +4 and negative for negative and trace value. Other variables analyzed were urinary tract infection, urinary pH, age, and gender.

Results: Male patients have a higher prevalence of stone compared to female with 1.8:1 ratio. Age ranging from 23-78 years old for stone group and 17-85 years old for control group. There is no significant correlation between proteinuria and stone disease (p = 0.203). We found relationship between infection and stone (p = 0.002), also between pH and stone (p = 0.024). After univariate and multivariate analysis, our data showed a significant correlation between infection and proteinuria (p = 0.000).

Conclusion: There is no correlation between proteinuria and urinary stone. However, we found correlation of proteinuria and urinary tract infection. It might suggest that proteinuria in our patients are generated by inflammation.
ABSTRACT

Process due to infected stone. Further advanced studies needed to confirm which macro or micro molecule proteins acted as inhibitor in non-stone formers or promoter in stone formers patients.

Keywords: stone, kidney, characteristics, urine.

Intravesical migration of intrauterine contraceptive device associated with bladder stone formation: a case report

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Introduction: Intrauterine contraceptive device (IUD) is the most used method of reversible contraception because of its high efficiency and low complication rate. IUD may cause complications from mild discomfort to sepsis. Uterine perforation by an IUD is an uncommon complication. However, intravesical migration or misplacement of an IUD is a very rare complication with a high ratio of stone formation. The primary purpose of this case report is to show that persistent lower urinary tract symptoms (LUTS) in a woman with IUD may be associated with intravesical migration and bladder stone formation.

Case: A 36-year-old Indonesian woman underwent examinations for lower urinary tract symptoms (LUTS) and recurrent urinary tract infections (UTI) over the previous 3 months. The plain radiograph showed a 4x2-cm bladder stone with an imprint of an intrauterine device in it. The device had been inserted 7 years ago after having a cesarean delivery. She had been asymptomatic until she developed lower urinary tract symptoms. After confirming the location of the stone via plain radiography and ultrasonography, a vesicolithotomy was performed, revealing a stone with limbs corresponding to the shape of the IUD. The device was partially covered with the stone material. Our patient recovered well from surgery.

Conclusion: A clinician must consider the possibility of migration from an IUD in female patients with recurrent urinary tract infections.

Keywords: Intrauterine contraceptive device, intravesical migration, bladder stone.

Management of 14 hours penile fracture: a case report

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Introduction: Penile fracture is a rare urological emergency that needs immediate repair. It is usually caused by trauma in its origin, whether during sexual intercourse, exotic self-inflicted, fall, or vehicle related. Tunica albuginea and/or corpus cavernosa are severed, it can sometimes be accompanied by rupture of the urethra. Immediate surgical repair should be done as soon as possible to prevent further complication.

Case: A 52 years old male come with swelling and severe pain on his penis 14 hours following sexual intercourse with his mistress. No blood in the external meatal nor hematuria was present, and there were no abnormal passing of urine complained. Immediate repair of the corpus cavernosum was performed. The penis was degloved and the corporal tear was closed using absorbable suture. 8 hours following surgery, the patient had a morning erection and no early signs of complication observed.

Conclusion: Immediate surgical repair should be presented after penile fracture was diagnosed. Emergency surgical repair can preserve voiding and sexual function.

Keywords: fractures, penile, injury, management.

Percutaneous nephrolithotomy in prone vs supine position which is better?: a systematic review

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Introduction: Percutaneous nephrolithotomy (PCNL) is a procedure used to remove kidney stones from the body when they can’t pass on their own. A scope is inserted through a small incision in your back to remove the kidney stones. The aim of this study is to review the literature reporting the technique of PCNL and outcomes for prone and supine PCNL, as PCNL is the most effective procedures for large renal stones & complex stones. But it is still debatable in terms of which is the best position, prone or supine.

Methods: A review of medical literature was conducted using PubMed database to identify relevant studies regarding PCNL prone and supine position published up to July 2019. Only publication in English considered with the keywords of ‘PCNL’ ‘Prone’, ‘Supine’, ‘Percutaneous Nephrolithotomy’ and ‘Randomized Clinical Trial’ are included. Articles relevant to the particular aspect of PCNL is discussed.

Results: We found 92 articles related to the keywords, and through abstract screening we found 16 Randomized Controlled Trial but only 5 studies appropriate with the review.

Conclusion: The present systematic review highlights the advantages and disadvantages of supine and prone PCNL. From our review we found the supine position is as save and effective as prone position. Supine position has more advantages in terms of operation time, but does not differ in critical factors, like stone-free and complication rate.

Keywords: PCNL, prone, supine, percutaneous nephrolithotomy, randomized clinical trial.

Predictive model of ureteral obstruction of allograft kidney following kidney transplantation

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Introduction: A kidney transplant recipient rarely develops symptoms of ureteral obstruction unless urinary tract reconstruction was done by pyeloureterostomy or ureteroureterostomy to the
Management of urethral stricture due to prostate cancer and colorectal cancer radiotherapy: a systematic review

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Introduction: Prostate and colorectal cancer are the second and third most common cancer in male. Radiotherapy is performed as a treatment option for both cancers. Thus, lead to the increasing case of radiotherapy-induced urethral stricture. Recurrent stricture post-correction commonly occurs. The study aims to perform a systematic review and describe current evidence and perspective towards the management of urethral stricture due to prostate and colorectal cancer radiotherapy.

Methods: Six relevant English literatures were found throughout online database published between 2011-2017. PICO is used to identify components of clinical evidence in order to create systematic review. Subjects include 222 cancer radiotherapy patients due to prostate and colorectal cancer. Urethroplasty is the most preferred treatment option. The onset of recurrent stricture is shorter than the previous one.

Results: The regression model suggested that urethral obstruction of allograft kidney was positively associated with multiple allograft kidney arteries, older donor age (>40 years), older recipient age (> 60 years), and delayed graft function. Optimal sensitivity and specificity were achieved at a cutoff value of 0.09 for the estimated probability of ureteral obstruction. Sensitivity, specificity, and accuracy of the model were 75.7%, 82.1%, and 81.7% respectively.

Conclusions: The suggested model can be used to predict ureteral obstruction among renal graft recipients using simple variables with acceptable accuracy. This predictive model can be of use in decision making to select high-risk patients for monitoring following kidney transplantation.

Keywords: kidney transplantation; logistic regression; predictive model; ureteral obstruction.

Conclusions: Urethral stricture commonly occurs after radiotherapy in prostate and colorectal cancer. Urethroplasty is the most preferred treatment option. The onset of recurrent stricture is shorter than the previous one.

Keywords: Prostate cancer, colorectal cancer, urethral stricture, radiotherapy, urethroplasty, stent

Penile amputation as complication by guillotine technique circumcision: a case report

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Introduction: Traumatic amputation of the penis is a rare surgical emergency. Although repair techniques have been well described in literature, failure of reimplantation and its causes are poorly understood and reported. This report aims to present a case of penetrating penile trauma grade V according to American Association for the Surgery of Trauma (AAST) in penile amputation upon circumcision with review the relevant literature.

Case: Male, 8 years old, had penile amputation upon circumcision. From penile exploration we found penile amputation at gland penis (AAST grade V). Two hours after cutted, the patient undergoes macrosurgical replantation by general surgeon in peripheral area, and showed sign of necrosis at tip of gland penis. The patient was referred to receive advance care of urology in capital city of East Nusa Tenggara on third day after replantation. Penile stump became necrotic and we had to performed debridement, necrotomy to remove the penile stump, and meatoplasty.

Conclusion: With many reports of penile trauma, especially penile amputation using guillotine techniques, medical professionals, especially those who are not experienced, can avoid this technique.

Keywords: amputation, penis, circumcision, complication.

Trends of electrolyte imbalance in patients with nephrolithiasis

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Introduction: Nephrolithiasis is one of the most common benign stone disorders in urinary tract. Nephrolithiasis prevalence is estimated to be around 0.6 percent of the general population. Nephrolithiasis is suspected to be linked with electrolyte imbalance (i.e. hypernatremia). A potential common link between hypernatremia and nephrolithiasis is increased urine calcium (Ca2+) excretion, though it has not been appropriately documented. The objective of this study is to explore the trends of electrolyte imbalance in patients with nephrolithiasis.

Method: The study is a crosssectional study design done in patients with positive in nephrolithiasis confirmed by ultrasound imaging. Electrolyte analysis and other medical conditions (e.g. hypertension) were obtained from medical
ABSTRACT

records in patient admitted from January to December 2018. Analysis was done using the chi-square test.

Result: A total of 22 patient with confirmed nephrolithiasis was obtained with mean age between 50 ± 11.24 years, natrium 131.32 meq/L and kalium 3.54 meq/L of the patient has hyponatremia and coexisting hypokalemia. There is a significant result in statistical analysis of hyponatremia and hypokalemia (P =0.048)

Conclusion: While hyponatremia is not statistically significant in patient with nephrolithiasis, nephrolithiasis positive patient who had hyponatremia is most likely to have coexisting hypokalemia.

Keywords: nephrolithiasis, electrolyte, imbalance, sodium.

Between a rock and a hard place - a case of minimal trauma resulting in disruption of the female urethra

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Introduction: Disruption of the female urethra is an uncommon entity usually involving significant trauma with associated pelvic fractures. The incidence of urethral injury due to blunt trauma in the context of pelvic fractures is reported at between 0-6%. This is thought to be due to several anatomical protective factors. This is the first reported case of a blunt trauma in a female resulting in disruption of the urethra without significant concurrent pelvic injuries after the patient suffered a straddle injury following a fall from standing height onto a rock.

Case: A 270-degree circumferential tear of the mid urethra was identified, with only the 9 to 11 o'clock portion of the urethra remaining intact. It was associated with a small vaginal tear but no other pelvic injury. A 16Fr catheter was able to be threaded into the external orifice into disconnected segment of the urethra and drained clear urine. A primary repair was performed over a 16Fr IDC and a further maritus interposition graft was used to reinforce the site of injury. Following the repair the patient required a cystoscopy and dilatation despite being able to void on first review. Following dilatation she was able to void at a good flow, with minimal post-void residuals.

Conclusion: It was found that early repair with an interposition graft resulted in a good outcome for the patient with return of continence, good cosmesis and no significant voiding difficulties reported following an initial dilatation, however monitoring for long term consequences of this injury will be ongoing. We will present a poster and figures in the case.

Keywords: urethra, female, tear, surgery, management.

Management of urethral stricture disease in Australia – analysis from 2000 - 2018

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Introduction: Urethral stricture disease carries significant morbidity, with prevalence rates challenging to ascertain. Stricture disease has traditionally been managed endoscopically, with high recurrence rates and subsequent need for re-intervention. With better understanding of stricture disease and improved surgical techniques, it is hoped morbidity will be reduced. This study aimed to analyze the trends of urethral stricture management in Australia between 2000 and 2018.

Methods: The Australian Government provides publicly accessible data for all procedures on the Medicare Benefits Schedule (MBS). A database search for the following procedures was performed; passage of sounds, urethral stricture dilation, urethrotomy, urethroscopy, single-stage urethroplasty, first stage urethroplasty, second stage urethroplasty, and other urethroplasty.

Results: In general, there has been a reduction in total number of procedures being performed for management of urethral stricture disease, with 7517 procedures being performed in 2000/2001 compared to 6414 in 2017/2018. This represents a reduction of 15% over this period, despite an increase in population by ~5 million people. As can be seen in Figure 1, urethrotomy and urethroplasty are growing areas in stricture management in Australia, with all other procedures in decline. In particular, urethral dilation and the use of sounds have experienced large decreases (53 and 39% respectively). From a high of 27 endoscopic procedures per urethroplasty in 2009/2010, in 2017/2018, this ratio has dropped to 13.

Conclusion: The management of urethral stricture disease has shifted significantly since 2000, with endoscopic procedures steadily decreasing in popularity and being replaced by urethroplasty. Improved knowledge regarding stricture disease as well as increasing access to specialists undertaking fellowship training in reconstructive urology may explain this paradigm shift.

Keywords: urethral, stricture, management, epidemiology, trends.

High incidence of varicocele among young men in Public Police Hospital Denpasar, Bali, Indonesia: a descriptive study

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Introduction: Varicocele is a progressive disease which possibly starts from puberty. When left untreated, it could progress and causes complications such as infertility. Determination on the representative national incidence and characteristic of varicocele has been a hard challenge due to the lack of data on varicocele epidemiological studies, especially in Bali. This study aims to know the characteristic of varicocele patients undergoing varicocelectomy in Bhayangkara Denpasar Hospital from January 2017 to December 2018.

Method: This research is a descriptive retrospective study with cross sectional method. The population of the study consists of patients who were diagnosed with varicocele and underwent varicocelectomy in Bhayangkara Denpasar Hospital from January 2017 to December 2018. Total sampling method was used. Research data were retrieved by taking the patient’s entire medical record with varicocele in Bhayangkara Denpasar Hospital from January 2017 to December 2018.

Results: 95 samples were diagnosed with varicocele and underwent varicocelectomy. The highest percentage among age groups is 15 to 24 years (89.5%), with normal stature (94%), normal weight (86%), asymptomatic (90.5%), left unilateral varicocele (86.3%), grade III varicocele (82.1%) and without comorbid (93.8%). The samples underwent varicocelectomy with
Introduction: Ureterocele is a sacculation or cystic enlargement of the terminal portion of the ureter. The etiology of the ureterocele is congenital atresia of the ureteric orifice, ureterocele is hard to diagnosed because there are no clear clinical sign. The incidence of ureterocele is estimated to be 1 in 4000 live births. Ureterocele occurs seven times more in girls than in boys, about 10% of the ureteroceles are bilateral. Ureterolithiasis incidence in people with ureterocele is about 3 - 40% in all cases.

Case: A 48-year-old male patient came with the chief complaints of difficult to urinate. Laboratory investigation showed urinalysis on admission showed few red blood cells. Abdominal x-ray showed radiopaque stone in the area of bladder. Abdominal ultrasound showed the ureterocele and the stone within the ureteroccele.

Discussion: Ureterocele is a cystic dilation of the distal aspect of the ureter that is located in the bladder. Ureteroceles usually found in boys, it presents with intermittent flank pain, recurrent urinary tract infection or calculus. Classical method to diagnose the ureterocele is ultrasonography. Ureteroceles may be treated by endoscopic incision generally. During operation we found trabeculation, a large left ureterocele is with no apparent of left ureteric orifice. The incision of the ureterocele diagnoses with the collin’s knife and a stone was seen inside the ureterocele, then the ureterocele wall was cut with the cutting loop. Lithotripsy and transurethral incision of the prostate were performed.

Conclusion: A stone within ureterocele rarely can be diagnosed before surgery, therefore a comprehensive approach is needed to diagnose and treated the disease.

Keywords: ureterocele, stone, surgery, management.

Rhabdoid adrenocortical carcinoma with brain metastasis: a case report

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Introduction: Adrenocortical Carcinoma (ACC) is a rare disease with the incidence about 0.02-0.2% from all case of malignancies. The number of malignancies case that reported annually being about 0.7-2 cases per million people. ACC can be a functional or nonfunctional tumor, being diagnosed incidentally, because of loco-regional compression phenomenon or because of distant metastases. The overall 5-year survival rate after diagnosis was 15% to 47% and there are no significant differences in survival based on patient age, gender, or tumor functional status.

Case: A 47 years old man came into emergency department with nauseous, vomiting, headache and weakness for two weeks. From the physical examination, there was tenderness on the left hypochondriac region of abdomen and slight hypertension. Abdominal ultrasound showed a solid mass with central necrotic on upper left abdominal cavity, which the border with upper pole left renal was hard to differentiate. Then, CT abdomen with contrast revealed a well-defined heterogeneous solid mass, flat edge with a necrotic area that attached on the upper pole of left renal, suspicious on left adrenal organ, heterogeneous contrast enhancement, with the size about 99.2 x 101.8 x 112.1 mm. He was performed left radical adrenectomy as therapeutic treatment and also to determine the histopathology and staging of the tumor. After surgery, he complained if the headache remained thus Head CT was performed and it concluded an Intracranial metastatic process at the right parietal region, left temporal brain parenchyma and cerebellum which pressing ventricle IV. From the neurologic division steroid and neurotrophic treatment was given. This patient was also consulted to Hematologic oncology division and Neurosurgery for further treatment.

Conclusion: ACC is a progressive disease with a poor prognosis and can metastasis to any organs of body. Patient should undergo complete physical examination and imaging work-up. Multimodality treatment has to be included to treat the patient.

Keywords: carcinoma, adrenocortical, management, diagnostic, procedure.

A case report: 33-years-old man with recurrent ureteropelvic junction obstruction

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Introduction: Ureteropelvic Junction Obstruction (UPJO) is the obstruction of upper urinary tract, may present in fetal life until adulthood. Bilateral obstruction occurs in 10-15% of cases. Congenital UPJO mostly results from an intrinsic process with dilatation of the renal collecting system. Acquired UPJO in adulthood may present without dilatation of the renal collecting system and correlated with urolithiasis, infection, postoperative peripyleo-inflammatory fibrotic complication, and urothelial malignancy. Pyeloplasty, both classic dismembered (Anderson-Hynes) or laparoscopic, is the gold standard treatment. The report aims to describe comprehensive etiologies, diagnostic, and recurrent UPJO treatment based on a real patient.

Case: We report case of 33-years-old man came with left flank colic pain (VAS:8/10), nausea, and hematuria that did not disappear with medication. He had stone history in right proximal ureter with hydronephrosis and hydroureter. Ureterorenoscopy (URS) had been performed two years ago. Other vital signs and hemodynamics were stable. Abdominal USG demonstrated bilateral
ABSTRACT

Characteristics of benign prostatic hyperplasia (BPH) patients who underwent transurethral resection of the prostate (TURP) surgery

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Introduction: BPH is the most common benign tumor in men and particularly related to advanced age. It is widely known as the leading cause of lower urinary tract symptoms (LUTS) among male patients. There are various therapeutic options for BPH, but transurethral resection of the prostate (TURP) remains as the gold standard. This study aimed to describe the characteristic of patients who underwent TURP surgery at Christian University of Indonesia General Hospital.

Methods: The data of 118 patients who underwent TURP surgery between January 2016 and September 2018 at Christian University of Indonesia General Hospital were collected retrospectively from the medical record. Baseline demographic characteristic, presenting chief complaints, prostate volume, and indication of surgery were described furthermore.

Results: The patient age ranged from 41 to 90 years old, with 52 patients (44%) belonged to the 61-70 age group. More than two-thirds (67.7%) of the patients presented with urinary retention as their chief complaints, while the stenotic ureter still remained so laparoscopic end-to-end ureteral anastomosis with double j stent insertion was finally performed. There is no pain or hematuria after the procedure.

Conclusion: Recurrent UPJO causes inadequate urinary flow leading to renal impairment. Clinical signs, symptoms, etiologies, and diagnostic imaging have significant role in determining the diagnosis. Early surgical intervention is the definitive treatment to reduce renal damage and its complications.

Keywords: ureteropelvic junction, recurrent obstruction, end-to-end ureteral anastomosis.

Interposition prostatic flap repair – an innovative approach to a difficult problem

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Introduction: Urethro-perineal fistula (UPF) following abdominal-perineal resection (APR) is an uncommon and technically challenging problem to manage. Fistula occurs either due to iatrogenic injury to the urethra, or infection and abscess formation in the anatomical dead space posterior to the urethra following resection. Usual techniques to manage urethral disruption are limited in this situation, with conservative management and local wound care leaving patients with significant morbidity. Fistula excision and reconstruction with myocutaneous flaps or omental wraps are technically difficult and have been applied with variable success. We present a novel method for repair of these unique injuries. The objective of this case series is to highlight the steps and fundamental principles of this technique.

Methods: 6 men with UPF following APR were included in this retrospective case series. Thorough assessment of the fistula with retrograde urethrogram and cystoscopic evaluation was performed. Patients were placed in prone and entry to the site was via the previous APR incision. The fistulous tract was explored to its urethral origin. Once identified, the posterior prostatic capsule was dissected and a pedicled flap raised. It was subsequently rotated 180 degrees and sutured to cover the urethral defect. The perineum was closed in layers to reduce dead space, with an IDC and Penrose drain left to ensure internal and external drainage.

Results: Mean age was 63.7 (55 – 75 years). Mean fistula length was 7mm. 1 patient had a history of previous repair. Median follow-up time was 7 months (2 – 18 months). 100% (6/6) patients were continent, dry and infection-free. No patients experienced post-operative complications.

Conclusion: Interposition prostatic flap repair appears to be a viable reconstructive option for the management of urethral fistula disease post-APR. By manipulating local tissue, the reconstruction provides an effective solution to a technically difficult problem with reduced morbidity compared to other reconstructive options.

Keywords: flap, repair, resection, surgery.

Long gap total urethral rupture in two distinct types of pelvic fractures: case reports from remote area

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Introduction: Type of urethral rupture is crucial to be diagnosed as earliest for further management in these patients today. Unstable pelvic fractures (PF) can likely caused total urethral rupture (TUR). However, pelvic fracture urethral injury (PFUI) might varies. The objective of this paper is to investigate whether particular PF patterns enables a clinician to predict the presence of TUR or not,
Correlation between risk factors and severity of lower urinary tract symptoms in Asmat Men, Papua, Indonesia

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Introduction: Lower Urinary Tract Symptoms (LUTS) are symptoms of the lower urinary tract during the storage, voiding and post voiding phase. These symptoms are often experienced over 50 years old in men. The prevalence of LUTS increases with age. Lifestyle, Body Mass Index (BMI), alcohol, smoking and socio-economic are risk factors for LUTS. Conventional factors of LUTS such as family history, androgen activity, and high blood pressure are risk factors for severe LUTS. The aim of this study to analyze correlation between various risk factor and severity of LUTS in Asmat men, Papua, Indonesia.

Method: A Cross sectional — Analysis that collect data from men over 30 years old in Asmat, Papua, Indonesia who suffered from LUTS, by assessing the International Prostate Symptoms Score (IPSS), age, socioeconomic, blood pressure, Body Mass Index (BMI), and smoking history. We statistically analyze correlation between various risk factor and severity of LUTS

Results: We collected data from 100 person suffered from LUTS. Severity of LUTS had significant correlation with age (r=0.245, p=0.023), hypertension (r=0.302, p=0.007), and smoking (r=0.269, p=0.021). Instead the risk factors that did not have a statistically significant correlation with severity of LUTS were BMI (r=0.278, p=0.780) and socioeconomics including occupation (r=0.381, p=0.150), income (r=0.490, p=0.888), education (r=0.257, p=0.721).

Conclusion: Age has a significant correlation with the severity of LUTS. The older men have a tendency suffer from severe LUTS. Hypertension and smoking also have a significant correlation with the degree of LUTS. Men with a history of hypertension and smoking habits will increase the incidence of severe LUTS.

Keywords: LUTS, risk factor, correlation.

ERUPT trial: external beam radiotherapy and urethral strictures are prostate cancer treatment

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Background: External beam radiotherapy (EBRT) is frequently used for localized prostate cancer treatment. In Toowoomba, Australia, we estimate that 350 patients undergo EBRT for prostate cancer every year out of a population of 300,000 people. Several studies have suggested that radiation therapy contributes to the development of urethral strictures but no prospective studies have been performed and the rates of stricture disease vary widely between 2-15%. Urethral strictures secondary to radiotherapy are notoriously difficult to treat and patient outcomes are poorer.

Aim: This study aims to identify if there is a correlation between radiation therapy and the development of urethral strictures. The secondary outcome is to determine if there are any specific risk factors (patient or radiation-related) that increase a patient’s likelihood for the development of stricture disease and therefore allow early identification and treatment of urethral strictures resulting in the eradication of symptoms and improvement of quality of life.

Methods: A prospective cohort study was performed from April to June 2018 at Kardinah Hospital. All patients diagnosed with urethral stricture were screened for MeTs criteria. All demographic data were recorded and they were analyzed using SPSS v.23 (IBM Statistics, New York).

Result: 71 patients with urinary tract calculi were included in this study. However, only 65 patients underwent definitive therapy. The mean age of patients was 54.7±11.24 years-old, with male to female ratio of 2.4. The average BMI was 20.9±2.3 kg/m². Most stones were found in the kidney (38%) and bladder (26.8%), with variety of size ranging from 5 x 2 mm to 120 x 90 mm. The mean of blood pressure described was 127.2±7.96 mmHg per 81.6±5.77 mmHg. Lipid profiles, including total cholesterol, high- and low-density lipoproteins were averagely 177.0 ± 35.92, 52.0 (27-96), 107.3 ± 37.58. In addition, the median of triglyceride level was 131 (ranging from 50-406). Lastly, the median level of blood glucose was 122 (91-203) mg/dL.

Conclusion: MetS criteria is found to have a relation with urolithiasis, especially HDL level.

Keywords: MeTs, urolithiasis, correlation, metabolic.

Metabolic syndrome traits in urolithiasis patients

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Introduction: Metabolic syndrome (MeTs) is a cluster of commonly co-occuring metabolic risk factors, and it appears to increase worldwide. It may influence the acidity in urine, which leads to the formation of uric acid, calcium and oxalate stone, and also associated with other chronic diseases. This study is aimed to explore the relation between MeTs and urolithiasis in our center.

Methods: A prospective cohort study was performed from April to June 2018 at Kardinah Hospital. All patients diagnosed with urolithiasis were screened for MeTs criteria. All demographic data were recorded and they were analyzed using SPSS v.23 (IBM Statistics, New York).

Result: 71 patients with urinary tract calculi were included in this study. However, only 65 patients underwent definitive therapy. The mean age of patients was 54.7±11.24 years-old, with male to female ratio of 2.4. The average BMI was 20.9±2.3 kg/m². Most stones were found in the kidney (38%) and bladder (26.8%), with variety of size ranging from 5 x 2 mm to 120 x 90 mm. The mean of blood pressure described was 127.2±7.96 mmHg per 81.6±5.77 mmHg. Lipid profiles, including total cholesterol, high- and low-density lipoproteins were averagely 177.0 ± 35.92, 52.0 (27-96), 107.3 ± 37.58. In addition, the median of triglyceride level was 131 (ranging from 50-406). Lastly, the median level of blood glucose was 122 (91-203) mg/dL.

Conclusion: MetS criteria is found to have a relation with urolithiasis, especially HDL level.

Keywords: MeTs, urolithiasis, correlation, metabolic.
in improved patient outcomes. This clinical trial is registered and is commencing recruitment this year.

**Methods:** This study will be conducted as a prospective, observational trial. The target population includes all patients who undergo external beam radiotherapy as a treatment for prostate cancer over the next one year in Toowoomba. Patients who have undergone EBRT will perform flow rates, complete AUA and IIEF scores every 6 months for 5 years. Data will also be collected about radiation-induced bowel complications and efficacy of radiation therapy. Patients who develop urethral strictures will be offered reconstructive surgery.

**Data analysis:** Data will be collected prospectively in an online database. Patients will be then be stratified into three outcome groups: no strictures, short-term strictures (1-2 years) and long-term strictures (3-5 years). Data will be collated in the form of a research paper. Preliminary results will be available after one year.

**Keywords:** trial, radiotherapy, strictures, urethral.

# The management of urolithiasis and bilateral staghorn calculi in pediatric with ureterorenoscopy and multisession extracorporeal shock wave lithotripsy: a case report

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**Background:** Urolithiasis has been known for a very long time. Although pediatric urolithiasis is common, there is an excellent variation in the incidence, prevalence, stone composition, and etiological factors, leading to complex pathogenesis. Staghorn calculi are large renal stones that occupy most or all of the renal collecting system, frequently involve the renal pelvis and branch into the surrounding infundibula and calyces. Urolithiasis and bilateral staghorn calculi are uncommon in the pediatric population and present unique challenges and difficulties in surgical treatment. Urolithiasis and staghorn calculi in pediatrics can be managed by minimally invasive surgery including extracorporeal shock wave lithotripsy (ESWL) and ureterorenoscopy (URS). Both ESWL and URS are effective in this population. Treatment choices should be based on the child’s size and urinary tract anatomy. The small size of pediatric ureter and urethra favors the less invasive approach of ESWL.

**Case Presentation:** We present a case report of a 4-year-old boy who presented with main complaint dysuria and cannot urinate for 3 days. From plain abdominal film imaging obtained calculi in urethra posterior, ureter dextra and bilateral staghorn calculi. From laboratory test results obtained creatinine serum levels 2.67 mg/dL and BUN levels 105.8. The first step treatment, we treated calculi in urethra posterior and ureter dextra with lithotripsy URS, preoperative used general anesthesia. Next step treatment, we treated staghorn calculi in renal dextra used ESWL, preoperative general anesthesia. We performed one session ESWL at frequency (f): 2, power: 4 until max 10, 2500 shock. We treated using multisession ESWL once a month for right kidney staghorn calculi, after being done 7 times ESWL, the size of the staghorn calculi shrinks, decreases the levels of creatinine serum 1.57 mg/dL and levels of BUN 79.9 mg/dL.

**Conclusion:** URS and ESWL treatments in pediatric patients with urolithiasis and staghorn calculi show significant and safety results.

**Keywords:** Urolithiasis, staghorn calculi, pediatrics, URS, ESWL, BUN, creatinine.

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**Buried penis in Sanglah General Hospital: a case series**

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**Introduction:** Buried penis is a congenital anomaly in which the penis is normal in size but appears to be small. The etiology of this case is still unclear. In most cases, the abnormal fibrous tissue was found due to failure of darts fascia development. The inelastic darts layer prevents penis elongation forward and holds the penis. The incidence of hidden penis estimated around 0.4% of 4.84 million newborns in the USA. Diagnose made based on clinical findings. Patients usually complained of small penile size, painful erection, sexual dysfunction, and sometimes micturition difficulty. The penis becomes palpable when the pubic fat is pressed down to the base of the penis. Reconstruction for younger patients usually gives a better outcome. There is various surgical technique to correct this condition, including penile degloving, skin and subcutaneous release from corpus, inelastic darts tissue removal, and skin coverage.

**Methods:** Eight patients with buried penis underwent reconstruction in Sanglah Hospital were collected from January to December 2018. The data were taken before the procedure and at least 3 months after the operation.

**Result:** The age of patients ranges from 5 - 15 years old. Most of the patients’ body weight was above 50 percentiles based on CDC chart. Penile length before surgery range from 0.0-3.0 cm. Penile degloving, excision of inelastic darts layer (abnormal fibrous tissue), and skin coverage by skin flap were performed. Post-operation penile length was increased to 4.3-13.5 cm which was reasonable based on the patient’s age. Histologic examination showed thinner but fewer collagen which was similar to hypospadias and significant difference type to average penile.

**Conclusion:** Buried penis is an uncommon congenital penile abnormality. Various approaches and surgical techniques of buried penis reconstruction are used individually based on the patient’s condition and the surgeon’s preference. Stretch penile lengths were increased after reconstruction.

**Keywords:** Buried penis, penile degloving, inelastic darts.

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**Infertile man with varicocele and history of orchidopexy: a strategy to predict and improve the fertility: a case report**

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**Introduction:** varicocele and undescended testis (UDT) has a relationship with disruption of the germ cell maturation process in the testes, which results in male infertility. A strategy is needed that can be applied to predict and improve male fertility.

**Case:** A man 28-year-old, infertile for one year has a history of orchidopexy at the right testicle when he ages 9 years. On physical examination and additional investigation such as sperm analysis and urological ultrasound, that man has a bilateral varicocele, right testicular atrophy, and oligoteratozoospermia. Furthermore, the patient was subjected to varicocelectomy microligation.

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Discussion: varicocelectomy has a high success rate in terms of increasing male fertility. Infertility in men with history of orchidopexy is quite high depending on when the surgery was taken. Recommended time to orchidopexy is between the ages of 6-12 months. Testicular biopsy is recommended to be done at time of orchidopexy, which aims to determine the number of Ad spermatogonia to predict male fertility in the future. Varicocelectomy in men with history of orchidopexy has a fairly success rate, there are 86% increased in sperm analysis and 60% pregnancy (10% by natural pregnancy, 3% by intrauterine insemination, and 46% by intracytoplasmic sperm injection). There is no technique that most recommended to sperm retrieval, but MD-TESE has a more significant advantage than other techniques.

Conclusion: men with varicocele should be treated with orchidopexy at the age of 6-12 months and accompanied by testicular biopsy to predict future fertility. If a man with historical of orchidopexy has varicocele, varicocelectomy is needed to protect the testicles from the future damage. It should be considered to do sperm retrieval followed by ICSI to increase the likelihood of pregnancy.

Keywords: infertility, varicocele, sperm, quality.

Fournier’s gangrene: a 10-year retrospective analysis in a tertiary care facility

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Background: Fournier’s Gangrene (FG) is rare necrotizing fasciitis of the perineum, perianal, and external genitalia associated with high mortality and morbidity. Our objective was to provide a current analysis of Fournier’s Gangrene over 10 years.

Methods: A retrospective review of patients diagnosed with FG from January 2008 until December 2018 was performed. Our primary objective was to determine the mortality rate. Our secondary objective was to determine the morbidity rate. This was achieved by reviewing the total length of stay (LOS), ICU length of stay and number including type of surgeries performed. Data analysis included patients pre-existing comorbidities and time from presentation to theatre.

Results: 26 patients were identified with FG over 10 years. 1 patient did not survive giving a mortality rate of 3.84%. Our mean total LOS was 23.46 with a median of 20.5 days. 20 patients needed ICU admission, and out of these, 9 required ventilation (45%). The mean ICU LOS was 3.75 with a median of 4 days. The mean for number of surgeries performed was 3.58 with a median of 3.14 patients underwent skin grafting to achieve closure (53.84%). The mean time to theatre from presentation was 1.1 day with a median of 1 day. Colostomy and Suprapubic Catheter (SPC) procedures were performed in 4 and 6 patients respectively. 1 patient underwent a unilateral orchidectomy.

Conclusion: FG is a rare disease which still carries a high morbidity rate, however due to prompt multifaceted treatment, the mortality rate is significantly lower than quoted in previous literature. It is a clinical diagnosis and clinicians should maintain a high index of suspicion.

Keywords: Fournier’s, gangrene, management, experience.

Penile sclerofibroma: the complication of unlicensed penile augmentation practice

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Introduction: The size of penis has become a great concern for men in many cultures including in Indonesia. Besides the obsession of having larger penis, low education level and also lack of information mislead to alternative seeking behavior for unlicensed practice offered by nonmedical practitioners. Foreign materials such as paraffin, mineral oils, and others are widely used to increase the penis size. However, these practices usually end in disastrous complication. Penile sclerofibroma is a firm, tender, subcutaneous mass around male genitalia which caused by an inflammatory and granulomatous reaction to the foreign substances. Sclerofibroma is a serious complication, moreover, a challenging task for urologists.

Case Report: A 61-year-old man came to urology clinic with oedema and pain on his penis, erection problem, and difficulty of having sexual intercourse with his wife. He admitted he had two injections with unknown materials to have a larger penis in unlicensed practice done by nonmedical practitioner around 5 years ago. From the examination, he developed a tender and granulomatous mass around the shaft of penis and also some part of scrotum. He finally underwent wide excision for the penile sclerofibroma and scrotal flap for penile resurfacing.

Conclusion: This case represents a successful reconstruction of penile sclerofibroma. Injecting foreign materials for the practice of penile augmentation is harmful. This case report may be served as a ‘warning’ and encourage more public awareness in Indonesia about the danger of unsterilized and unlicensed practice for penile augmentation.

Keywords: penile, sclerofibroma, erectile, function.

Urethronav - the etiology and extent of urethral stricture, presentation of protocol

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Introduction: Urethral strictures are scars of the subepithelial tissue of the urethra causing constriction. A significant portion of stricture disease has unknown etiology, with up to 40% of strictures classified as idiopathic. Lichen sclerosus is an inflammatory condition known as a causative agent behind stricture disease, with disease spreading proximally from the meatus down the urethra. Currently, the literature suggests a 10% causative rate. However, there is a suggestion that this is grossly underestimated. The aim of this prospective study is to evaluate the cause of urethral stricture disease amongst various population groups.
Methods: This is a multi-institutional prospective cross-sectional study. Patients will be recruited from sites in Australia, New Zealand, India, Indonesia, Canada, USA, Mexico, Argentina, Kuwait, South Africa and Portugal. Each site will collect a minimum of 20 patients. Adult men diagnosed with idiopathic stricture disease with no previous urological intervention and no history of radiation therapy to the pelvis will be recruited to the study. All data will be entered into a RedCaps Database for central analysis.

Results: At the time of surgery, biopsies will be taken from 5 points along the urethra. Images from these biopsies will be reviewed by a single pathologist who will analyze the macroscopic and microscopic features as well as provide a histological diagnosis of lichen sclerosus.

Conclusion: The aetiology of a significant portion of urethral stricture disease remains unclear. Though lichen sclerosus is known as a cause for stricture disease, the prevalence is unknown. The literature is sparse with respect to determining the extent of microscopic inflammation, with no prospective data at the time of writing. It is hoped this study will shed further light on the aetiology of stricture disease and help guide management decisions.

Keywords: lichen sclerosus, strictures, urethra.

Penis reconstruction for trapped penis after hypospadias repair: a case report

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Introduction: Entrapped penis is an acquired concealed penis, caused by a dense cicatricle tissue on penis. The abnormal tissue usually caused by circumcision, hypospadias repair or trauma. Herein, we reported a case of trapped penis following hypospadias repair and reconstruction was performed afterward.

Case: A 13 years old man with chief complaint of entrapped penis since 8 years ago. From past history, patient was born with hypospadias. The patient had two times of surgery for the hypospadias consists of cordectomy, orthoplasty and urethroplasty. After the surgery patient complained entrapped penis condition thus making the patient embarrassed to change clothes with his friends. On physical examination, we found an entrapped penis, but normal size of penis observed when retracted. There was no urinating difficulty, urinating pain, nor suprapubic tenderness. We performed a reconstruction surgery to release the connective penile tissue and skin flap. Then a 12 Fr Foley catheter was inserted and penis bandage for 5 days, antibiotic and analgesic also given to the patient. The patient was discharged without any complication.

Conclusion: Entrapped penis is a complication that usually caused history of surgery such as hypospadias reconstruction or circumcision. Reconstruction management consist of connective penile tissue release, skin coverage and any other surgery that necessary due to the patient condition.

Keywords: entrapped penis, hypospadias, cicatricle.

Diagnosis and treatment of Fournier's gangrene in secondary hospital: a report of two cases

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Introduction: Fournier Gangrene (FG) is a specific form of necrotizing fasciitis that localized on genital and perianal, although it is rare and progressively fast and potentially fatal. The incidence of FG is 1.6 cases per 100,000 males, with a case fatality rate of 7.5%. Proper diagnosis and management are essential to avoid serious complications. Early debridement, broad-spectrum antibiotics and immediate supportive therapy, can reduce mortality.

Case: We report two cases of FG who were admitted to a secondary hospital which one of the cases had a delayed diagnosis, and both cases have a good wound healing.

Conclusion: Prompt diagnosis and appropriate treatment will greatly affect the prognosis of FG.

Keywords: Gangrene Fournier's, diagnosis, treatment.

Efficacy of TWIST score system for differential diagnosis in acute scrotum: first study in Indonesia

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Introduction: The acute scrotum is a common urological emergency. The differential diagnosis of the acute scrotum is broad. There is no clear consensus on a particular algorithm to be followed in the diagnosis of testicular torsion. A clinical tool such as the TWIST Score can be invaluable in management of patients with acute scrotum, specifically testicular torsion, as it can guide clinicians on decisions towards timely management of the patient with an acute scrotum.

Method: 111 patients who diagnosed by acute scrotum in Saiful Anwar General Hospital Malang from January 2015 until December 2018 were retrospectively reviewed. Data about onset of pain, first point of contact, history and physical examination findings, any adjunct test done, intra-operative results were collected. The efficacy of the TWIST score in diagnosing testicular torsion was determined by calculating its sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV).

Results: From 111 patients, 43 patients (38.7%) had testicular torsion. The mean age was 17.49 (6.69) years. Thirty-nine patients were classified as high risk as per the TWIST Score with cut point 5 had sensitivity 83.7% specificity 95.6%, positive predictive value (PPV) 92.3% and negative predictive value (NPV) 90.3%. The area under the curve was 0.82.

Conclusion: The use of the TWIST Score in clinical practice is accurate in determining high-risk patients who can proceed straight to the operating
treatment, 66.7%, followed by conservative management 16.7%, and Alf-
orchidopexy occurs on. Best outcomes post-operative after orchidopexy occurs
mean age of presentation was 19.18±6.24 years. Seven (63.7%) of the patients
Method: This study was conducted at Hasan Sadikin Hospital in Bandung
between January 2010 to June 2019. Secondary data was derived from patient
medical records with trauma to the penis, scrotum, vulva and perineal treated
at Department of Urology Hasan Sadikin Hospital. The characteristics reviewed
included the patient’s gender, mechanism of trauma, parts exposed to trauma,
associated injury and management of trauma.
Results: A total 40.978 trauma cases that were treated in Hasan Sadikin
hospital, we found 445 (13%) were external genitalia trauma. Three hundred
thirty patients (74%) were male and 110 patients were female (26%). Average
age was 29 ± 12 years. Patients with external genital trauma who had other
traumas at the same time were 371 (84%) and those who not presented with
other traumas were 74 (16%). Patients who were not survived were 12 (3%)
and those who lived were 433 (97%). Road traffic accidents and iatrogenic
trauma due to circumcision constituted the highest mechanism of injury, 171
(42%) and 116 (21%) respectively. Overall, there were 205 penile, 161 scrotal,
7 perineal, and 5 vulva injury — surgical intervention conducted on 428 (96%)
patients.
Conclusion: External genitalia trauma is uncommon. Genitalia external
trauma mostly occurs in young adult males. The most common cause of trauma
is road traffic accident and iatrogenic trauma because of circumcision. External
genitalia trauma mostly was associated with other trauma and most of patients
had surgical interventions.
Keywords: urogenital trauma, external genitalia trauma, penis, scrotum,
perineum

Testicular torsion profile in HVA Toeloengredjo Pare Private Hospital in the
period of January 2013 to December 2018

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2Urologist, HVA Toeloengredjo Pare Private Hospital

Introduction: Testicular torsion is a true urological emergency and must be
differentiated from other causes of acute scrotum pain. Delay in diagnosis and
management could lead to loss of the testis and can cause infertility. Golden
period less than six hours is an important thing for testicular torsion. The study
aims to describe descriptive data regarding testicular torsion profile in HVA
Toeloengredjo Pare Private Hospital from January 2013 to December 2018.
Method: This study is a retrospective study conducted at HVA Toeloengredjo
Pare Kediri using 11 patients admitted to our hospital with diagnosis of
testicular torsion from January 2013 to December 2018. Data were collected
from medical records.
Result: Most of the cases was found in 2016 with four cases (36.3%). The
mean age of presentation was 19.18±6.24 years. Seven (63.7%) of the patients
presented with left-sided torsion while four (36.3%) had right-sided torsion.
Most of the cases occur in 16-20 years (45.5%). The duration of symptoms from
onset to surgery was <6 hours (63.7%) mostly. Six patients occur with 720°
testicle torsion (54.6%). Best outcomes post-operative after orchidopexy occurs
in seven patients with less than six hours of disease onset.
Conclusion: At least one case of testicular torsion was found every year. Age
of onset mostly found at the age of 16 to 20 years old. Testicular torsion often
attacks the left side than the right side of testicles. Onset of patients less than
six hours shows intact testicles. 720° testicle torsion is the most common case
Keywords: testicular torsion, golden period, adolescent.

Ten years profiles of external genitalia trauma in tertiary hospital in West Java from
2009-2019

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Background: External genital trauma is uncommon in urogenital trauma,
in part because of the location and mobility of the penis and scrotum. In
some countries, the most common cause of external genitalia trauma is
gunshot trauma and road traffic accidents. This study aims to investigate the
characteristics of the external genitalia trauma in Hasan Sadikin Hospital which
can be expected to be part of urogenital trauma data in Indonesia.

Methods: This study was conducted at Hasan Sadikin Hospital in West Java
from January 2009 to December 2019. The characteristics reviewed included
the patient’s gender, mechanism of trauma, parts exposed to trauma,
associated injury and management of trauma.
Results: A total of 671 trauma cases that were treated in Hasan Sadikin
hospital, we found 194 (29%) were external genitalia trauma. The average
age was 29 ± 12 years. Patients with external genital trauma who had other
traumas at the same time were 257 (81%) and those who not presented with
other traumas were 36 (19%). Patients who were not survived were 18 (9%)
and those who lived were 276 (91%). Road traffic accidents and iatrogenic
trauma due to circumcision constituted the highest mechanism of injury, 143
(48%) and 83 (28%) respectively. Overall, there were 194 penile, 152 scrotal,
9 perineal, and 7 vulva injury — surgical intervention conducted on 276 (91%)
patients.
Conclusion: External genitalia trauma is uncommon in tertiary hospital in
West Java. Genitalia external trauma mostly occurs in young adult males. The most
common cause of trauma is road traffic accident and iatrogenic trauma because of
circumcision. External genitalia trauma mostly was associated with other trauma and most of patients
had surgical interventions.
Keywords: urogenital trauma, external genitalia trauma, penis, scrotum,
perineum

The predisposing factor of erectile dysfunction on priapism

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Introduction: Erectile Dysfunction (ED) was defined as the persistent inability
to attain and maintain an erection to permit sexual satisfactory. ED was one of
Priapism's complications due to ischemia, occurred in 57% of all priapism cases.
Priapism was prolonged penile erection more than 4 hours in the absence of
sexual stimulation. Predisposing factors of erectile dysfunction on priapism
were low flow type, prolonged duration, treatment, and etiologies of priapism.
Method: There were 13 patients data were collected from medical record of
General Hospital Dr. Saiful Anwar between January 2011-April 2019. One
patient had been excluded because he died after 6 days inpatient.
Results: The mean patient’s age was 38.75 years (range at 7-65 years). The
highest incidence was in the range 20-40 years age, 41.7%. Mean duration of
priapism was 97 90.45 hours with the highest incidence was in >72 hours,
41.7%. Ischemic type incidence was 75%. Winter procedure was the most
treatment, 66.7%, followed by conservative management 16.7%, and Al-
Ghorab procedure and embolization, 8.3% each. Erectile dysfunction incidence
was 33.3%. Predisposing factors that had a significant effect were the duration of
priapism > 72 hours and Chronic Myeloid Leukemia (CML) with Correlation
Coefficient 0.62 and 0.67 respectively, p <0.05. Multivariate analysis with linear
model showed the strength association R² 0.37 p <0.05 for CML. For other
variables had p > 0.05. Duration had inverse correlation with R² -0.01.
Conclusion: Prolonged priapism and CML was significantly related to the
incidence of erectile dysfunction. Therefore, treatment of priapism should be
done as early as possible and cautious with probability of CML. The disadvantage
of this study was lack of samples.
Keywords: erectile dysfunction, priapism, management, risk.

Testicular torsion profile in HVA Toeloengredjo Pare Private Hospital in the
period of January 2013 to December 2018

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Pare Kediri using 11 patients admitted to our hospital with diagnosis of
testicular torsion from January 2013 to December 2018. Data were collected
from medical records.
Result: Most of the cases was found in 2016 with four cases (36.3%). The
mean age of presentation was 19.18±6.24 years. Seven (63.7%) of the patients
presented with left-sided torsion while four (36.3%) had right-sided torsion.
Most of the cases occur in 16-20 years (45.5%). The duration of symptoms from
onset to surgery was <6 hours (63.7%) mostly. Six patients occur with 720°
testicle torsion (54.6%). Best outcomes post-operative after orchidopexy occurs
in seven patients with less than six hours of disease onset.
Conclusion: At least one case of testicular torsion was found every year. Age
of onset mostly found at the age of 16 to 20 years old. Testicular torsion often
attacks the left side than the right side of testicles. Onset of patients less than
six hours shows intact testicles. 720° testicle torsion is the most common case
Keywords: testicular torsion, golden period, adolescent.

Herlyn-Werner-Wunderlich Syndrome with urethrovaginal fistula: a rare case report

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Introduction: Congenital anomalies of the Mullerian duct system can result in various urogenital anomalies and, Herlyn-Werner-Wunderlich syndrome (HWW syndrome) is one such rare anomaly. This syndrome is characterised by the triad of didelphys uterus, obstructed hemivagina and ipsilateral renal agenesis. It is also known as OHVIRA (Obstructed Hemivagina with Ipsilateral Renal Anomaly) syndrome. It is usually discovered at puberty. The syndrome exhibits non-specific and variable symptoms mostly with acute or pelvic pain shortly following menarche. Diagnosis of this condition is rarely made in prepubertal girls, and instead it is diagnosed after menarche. In this article, we aimed to report our experience in the first case of Herlyn-Werner-Wunderlich syndrome with urethrovaginal fistula in Hasan Sadikin Hospital Bandung, Indonesia.

Case: A 12 years old girl presented to urology department with histories of urinary retention and 2 separate channels for urethra and vagina. The fistulography revealed no fistel on lower quadrant and pelvic pain. Previously, she came with monthly gross hematuria. She developed gross hematuria every month which showed suspected urethrovaginal fistula with two separate uteri with two separate cervices (uterus didelphys bicollis) and two proximal vaginas. Four departments (Urology, Plastic surgery, Obstetric and Gynecology, and Pediatric Surgery Department) were involved in this complex operation. She underwent successful exteriorisation operation of vagina and urethra with resulting of free of urinary retention and 2 separate channels for urethra and vagina.

Conclusion: The diagnosis of this syndrome is difficult due to its rarity and high index of suspicion is required for its diagnosis. Herlyn-Werner-Wunderlich syndrome should be suspected in cases with pelvic pain and also in neonatal cases with any renal malformation. Prompt diagnosis based on clinical suspicion and timely intervention is essential for prevention of potential complications.

Keywords: congenital, HWW syndrome, menarche.

Efficacy of revision urethroplasty in the treatment of recurrent urethral strictures at a tertiary hospital (Kenyatta National Hospital – KNH), in Nairobi Kenya: 2015-2018

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Introduction: Urethral strictures cause malfunction of the urethra. Urethroplasty is a cost-effective treatment option. Its success rate is greater than 90% where excision and primary anastomosis (EPA) is performed and 80-85% following substitution urethroplasty. The definitive treatment for recurrent urethral strictures after urethroplasty is not defined. Repeat urethroplasty is a viable option with unknown efficacy.

Method: Retrospective analysis of patients who underwent revision urethroplasty for unsuccessful urethroplasty at KNH from 2015 to 2018 was performed. Patients’ age, demographic data, stricture length, location, aetiology, comorbidities and type of urethroplasty was evaluated from records with complete data. Two hundred thirty-five records were evaluated for male patients aged 13 to 80years. Comparison of urethroplasty outcome between two patient cohorts was made: Fresh urethroplasty patients versus failed urethroplasty who underwent revision so as to determine efficacy of the later. Main outcome measure was urethral patency determined by cystoscopy or urethrography. Secondary outcome measures included: erectile dysfunction, urinary tract infection (UTI), incontinence and chordee. The outcome in both cohorts was compared by chi-square, student t-test or Fisher test where applicable.

Result: 235 patients studied underwent fresh urethroplasty but only 168 (71.5%) succeeded, while 67 (28.5%) failed and were subsequently subjected to revision urethroplasty. The success rate arising from revision was 58% and was associated with significant morbidity. Majority of urethral strictures were bulbomembranos in both patient cohorts. Trauma was the leading cause of

Traumatic penile partial amputation caused by rubber band: a case report

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Introduction: Traumatic amputation of the penis is a rare surgical emergency. The main etiologies for penile amputation are self-mutilation, accidents, circumcision, assault and animal attacks. Accidental injury covers large portion of external genitalia trauma because of high prevalence and severity of this disease. Here, we report the case of 21-year-old man who underwent replantation of his self-inflicted partial amputated penis.

Case presentation: We report a case of traumatic penile partial amputation in a 21-year-old man with history of mental retardation that presented with a one-day history of pain on the penile shaft due to tied penile shaft with rubber band ten days prior. Genitalia examination showed a partial amputation at region shaft penis. Reconstruction microsurgery and debridement on the penile shaft and urethral anastomosis were performed. This case highlights the management of traumatic penile partial amputation. The urethral anastomosis and penile replantation were successfully done.

Discussion: Penile amputation is a rare urological emergency. Most of the cases reported with self-mutilation are a result of severe substance-induced psychosis or underlying psychiatric disorder. Factors that contribute to the successful penile replantation include the severity of the penile injury or amputation, type and mechanism of injury, team expertise available, duration of ischemia time, and use of a microscope at time of neurovascular bundle repair.

Conclusion: A traumatic penile partial amputation is a rare urologic emergency. The self-inflicted amputation often found on patient with the history of psychological or mental illness. The limited data on detailed best surgical measures and outcome is still a concern.

Keywords: traumatic penile partial amputation, penile replantation, urethra; anastomosis.
urethral strictures followed by infective and idiopathic strictures. EPA was commonly performed in fresh urethroplasty but unlike substitution procedures gave poor results following revision. There was significant correlation between stricture length and complication rate.

Conclusion: Revision urethroplasty is feasible after failed urethroplasty though less efficacious.

Keywords: Urethral strictures, fresh urethroplasty, revision urethroplasty.

Leiomyosarcoma of the right kidney in pregnant woman: a case report

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Introduction: Cancer occurring during pregnancy is a rare clinical entity; 3% of which was renal cancer. One of many risk factors for occurrence of renal cancer is increased hormone levels, particularly in pregnant women.

Case Report: A 29-year-old woman complained of flank pain and abdominal pain before pregnancy. A renal mass was found incidentally during antenatal examination (gestational period 28 weeks). A CT scan was performed and pathology examination have confirmed leiomyosarcoma of right kidney. Excision was performed after the patient gave birth to the baby. The renal mass weighed 2000 g and with dimensions of 23.0 x 15.0 x 13.0 cm

Conclusion: Renal masses often present without significant symptoms, thus, its diagnosis is often incidental. The mainstay of management for renal cancers in pregnant women are tailored to the gestational period of the fetus. During the second or third trimester, patients may wait until the birth of the baby before an excision of renal mass is performed if the tumor is benign or grows slowly. Radiological examination may be performed in pregnant women. Unnecessary examination with radiological methods, however, is best avoided due to risk of teratogenicity.

Keywords: renal leiomyosarcoma, renal tumor, pregnant women

Large nephrocalcinosis: a case report

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Introduction: Nephrocalcinosis is a condition caused by generalized increase in calcium content of the kidney. Wide variety of clinical etiology, difficulty in ruling out differential diagnoses, and eventual progression to end-stage renal disease with lack of apparent symptoms present challenges in diagnosis and management of nephrocalcinosis. We present a case of large nephrocalcinosis of the right kidney due to excessive consumption of calcium.

Case Presentation: A 55 years-old woman complained of chronic flank pain for approximately 3 weeks. The patient had history of consuming milk in large amounts, about 500 ml daily and history of chronic consumption of antacids due to gastric reflux symptoms. Laboratory results revealed increased creatinine levels of 3.2 mg/dl, mild hypokalemia, hypercalcemia, mild hyperphosphatemia, severe non-anion gap metabolic alkalosis, and parathyroid hormone suppression. Examination with CT scan revealed an atrophic right kidney and hyperdense mass estimated 15 mm in diameter. Nephrolithotomy was performed on the patient and 15 mm diameter calcification was removed from the right kidney.

Conclusion: Nephrocalcinosis present with wide variety of severity and etiology; requiring careful examination and management to treat successfully. The case is unique in the size of nephrocalcinosis occurring in the right kidney. The extent of nephrocalcinosis exhibited in this case was exceptional in comparison with other cases of nephrocalcinosis.

Keywords: nephrocalcinosis, unilateral, hypercalcemia, calcium intake