

Urology Academics

1. Audit of Urinary Catheterization Practice. Muhammad Hanif Sultan (LGH)

INTRODUCTION:

The audit was carried out to objectively investigate the problems associated with technique of foley catheterization in emergency department and 3 indoor units of internal medicine wards.

METHODOLOGY:

A questionnaire was designed in accordance with Northampton Healthcare NHS foundation trust guidelines 2017 and data was collected from 102 House Officers and Post-Graduate residents after permission from Head of Departments of Internal Medicine. Personal help was available to people while they were filling questionnaire in case they have any questions.

RESULTS:

45.1% participants claimed that they had no formal training before they started practicing urinary catheterization. Not being fully aware of protocols, 24.5% doctors did not have the habit of taking informed consent from patients or their attendants before catheterization. 74-94% do not wear disposable apron, keep disposable pad under patient's thighs or clean perineum of patient before catheterization. Almost 60% doctors allow time for lubricant to take its effect before they insert catheter to patients and 58.8% let urine to drain before balloon inflation. Regarding post-catheterization, 25-40% doctors do not guide patients or attendants about when and how to drain catheter bag. For long term catheterization, only 24.5% doctors give written advice about catheter maintenance and 54.9% change catheter bag after 7 days. Similarly, 7.8% percentage didn't know about positioning catheter bag below level of patients and 10% about importance of decontaminating hands before manipulating a patient's catheter.

CONCLUSIONS:

Regular teaching sessions should be held for both new and old doctors to improve their technique of catheterization.

2. Validation of a Bench-Top Training Model for Retrograde Intrarenal Surgery. Dr Sana Hussain (AKUH).

ABSTRACT

Objective: To validate a low cost bench-top training model for retrograde intrarenal surgery.

Materials and Methods: After approval from Ethica Review Committee, this cross sectional study recruited 26 participants. 20 residents and 6 experts were asked to perform RIRS on a bench-top training model. Tasks performed included: calyceal navigation, stone localization, stone basketing and stone retrieval. Performance of trainees on the bench-top model was evaluated by expert urologists using the validated Objective Structured Assessment of Technical Skills (OSATS) assessment. Face and content validity of the model was determined by anonymous survey from trainees and experts.

Results: Face validity assessment revealed that trainees found the simulator 86% realistic (4.3/5 on a Likert scale). Stone Basketing (4.55 ± 0.60) and localization (4.25 ± 0.44) were thought to be the most realistic components and calyceal navigation (4.1 ± 0.44) the least. The simulator was found to be a useful training tool for learning RIRS (4.35/5). Moreover, the model was found to be essential for safety (4.25/5) during learning and providing transferrable skills to operation theatre (4.15/5), demonstrating content validity. Construct validity was demonstrated by comparing performance of Year III and IV with Year V and VI (mean OSATS 16.88 ± 3.39 vs 20.25 ± 4.39 , p-value 0.089).

Conclusion: This study has demonstrated face, content and construct validity of the Bench-top training model for RIRS training. Further evaluation is necessary to compare its effectiveness against other available models to demonstrate concurrent validity.

3. THE DARK LOOMING CLOUDS OF MDR-UTI IN UROLOGY. Dr Nasir Orakzai (IKD)

Nasir Orakzai, Liaqat Ali, Majid Kakakhel, Arshad

Back Ground: Urinary tract Infections are the most frequently reported infections that drive use of antibiotics around the world. UTI is the 4th most common type of health case- associated infection. The Multidrug resistant organism are predominantly bacteria that are resistant to one or more classes of antimicrobial. The increasing rise in incidence of MDR-UTI has resulted in increase morbidity, mortality and treatment cost of the patients. Thus It is important to highlight the magnitude of the problem, identify the risk factors that results in MDR-UTI, so that the newer generation broad spectrum can be reserved for use in these patients. Limiting the broad spectrum antibiotics to patients with proven risk factors can help in slowing the prevalence of resistance to these antibiotics.

Objective: To determine and study the magnitude and the risk factors for MDR-UTI and its effect on treatment cost of the patients with MDR-UTI

Methods: It is a descriptive study conducted in Department of Urology Team "C" at Institute of Kidney Diseases (IKD) from Jan 2019 till 30th September 2019. Total numbers of 27 patients were included in the study. We included only the patients with MDR-UTI irrespective of gender and age. All the data was recorded on structured proforma and was analyzed on SPSS.

Results: Total number of 1280 was operated from Jan-September 2019. Out of which 27 patient (2.1 %) developed MDR-UTI. 24 were male and 3 female. The mean age of the patient was 41 ± 18.4 . Urolithiasis with infections was found most frequent in 11 (40.7%) patients. All the patients were on broad spectrum oral antibiotics before development of MDR-UTI. All patients had history of urethral catheterization. The most frequently commonly procedure was Emergency cystoscopy and DJ stent 14 (51.9%). Followed by Ureterorenoscopy in 5 (18%). 17(63%) patients had no co morbid while only 3 patients had diabetes and 3 patients were having Diabetes and Hypertension. Pseudomonas aeruginosa was found most frequent microorganism in 20 (74%) patients followed by Klebsiella and E-Coli in 3 patient each and Enterobacter in 1 patient. Only the Colistin was found sensitive in 20 patients (74 %). The mean hospital stay in MDR-UTI was 10 ± 6.1 days as compared to 2.1 days in routine cases. Approximately 4 fold increase was observed on medicine alone in management of MDRUTI. We recorded 1 mortality (3.7%) in patient with MDR Urosepsis. Linear regression revealed previous use of antibiotics, catheterization, old age and endourological procedure in emergency were independent risk factors for MDR-UTI

Conclusion: MDR-UTI is a global problem. Pseudomonas is most frequently found microorganism in present setup. previous use of antibiotics, catheterization, old age and endourological procedure in emergency were independent risk factors for MDR-UTI. It is associated with significant morbidity , mortality and high treatment cost.

4 MYSTERY BEHIND HEALTH CARE PROVIDERS AND UTI . Miss Urooj Gulamani (AKUH).

CATEGORY:NARRATIVE REVIEW

TITTLE:MYSTERY BEHIND HEALTH CARE PROVIDERS AND UTI

Commonly we used to hear UTI is very common. UTI what is it? It's not that simple as this sounds like because it's not necessary that bacteria attacking your urinary tract must be your friend. It can go in days after greeting you or it can stay back causing multiple complications to assure their permanent residency. I'm serving in urology services since 3 years & when I look back I couldn't remember the count of patients I've encountered with UTI.

But taking a pause and reflecting back to my experience months back with UTI .I still remember that unusual pain with number of question that just pop on my mind that why it happened to me. Isn't that bacteria knows who am I. Wondering all the probable causes that could have been behind this. Resolving that mystery waiting for my turn in a clinic I just saw my two coworker there. Yeah that was a good that I met them but after having a word with them & coming to know that this it's the UTI again. With bundle of queries I jumped to doctors room one with urological specialties. After all interrogations of my past history & that tickling examination. She asked me that how much glasses of water I drink per day, calculating in the back of my mind I realized that hardly 2 to 3 glasses of water. I mean wait what. I didn't realized it before. I'm starving & I never know that. The second thing she asked me that how many time I use restroom during my shift, funny isn't it but it's so terrible things she replied. Taking a pause & comprehending in my mind that while caring patients I never realized we are neglecting ourselves. Planning our shift and taking out 10 mins timeout for yourself is similarly important as sleep is for the healthcare providers.

Author: Urooj Gulamani (Registered nurse)

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5 SIX YEARS UROLOGICAL DISEASE PATTERN AT ALLIED HOSPITAL

FAISALABAD. Aamir Imtiaz Khan , Muhammad Irfan Munir, Muhammad Akmal, Ghulam Mahboob Subhani

ABSTRACT: Urology is now an established subspecialty in all the provinces of Pakistan and there are different disease patterns in different areas. Current study has evaluated the distribution of different urological diseases in Faisalabad and any rising trends in any disease distribution in Faisalabad.

Aim and Objective: To devise future researches to determine the factors causing these variations and strategize their prevention as well as treatment options. Moreover, to plan future measures for redistribution of financial, logistical and human resources.

Study design: Retrospective Observational Study. **Setting:** Department Of Urology and Renal Transplantation, Allied Hospital Faisalabad. **Duration:** From Jan 2014 to Dec 2019. **Inclusion**

Criteria: All the patients admitted to Urology Department Allied hospital Faisalabad. **Exclusion**

criteria: All the patients re-admitted for same disease over this period of time. **Results:** Total of 1951 patient were admitted in 2014, 1963 in 2015, 2237 in 2016, 2488 in 2017, 2758 in 2018 and 2931 in 2019. The total number of patients with BPH was 318 in 2014, 204 in 2015, 281 in 2016, 383 in 2017, 361 in 2018 and 358 in 2019 respectively. The total number of patients with Stricture Urethra were 201 in 2014, 183 in 2015, 266 in 2016, 307 in 2017, 313 in 2018 and 255 in 2019 respectively. The total number of patients with bladder mass were 218 in 2014, 183 in 2015, 266 in 2016, 153 in 2017, 171 in 2018 and 278 in 2019 respectively.

Conclusion: Annual of BPH, pediatric urology, andrology and DSD remained the same by and large, during these years, while there was high prevalence of VVF, Stricture Urethra, Stone disease, Bladder Mass, Renal Trauma, and ureteric obstruction in the setting of our study.

6 Effectiveness of Prophylactic Antibiotics against Post-Ureteroscopic Lithotripsy

Infections: Single dose Antibiotic at induction v/s Triple dose antibiotics- A pilot study. Dr Anila (IKH).

Background :Ureteroscopic lithotripsy (URSL) is a common urological treatment for ureteric stones. There has been a considerable work done showing the importance of single antibiotic prophylaxis as compared to placebo, however, even these studies reported some bacteriuria with single dose antibiotic..

Methods: We conducted a prospective, randomized, controlled pilot study to evaluate the efficacy of prophylactic antibiotics in preventing postoperative infections in patients undergoing ureteroscopic removal of ureteric stones. The patients were given either a single dose of antibiotics or a triple dose of antibiotics. The presence of fever, dysuria, bacteriuria, and hygiene score of the patients were noted.

Results: 20 patients were included in the study. 10 patients were given a single dose of antibiotics and 10 patients were given triple dose of antibiotics. 3 patients (30%) in the single dose group developed significant bacteriuria compared to only 1 patient (10%) in the triple dose group. Only 1 patient (10%) in the single dose group, developed fever, while no patients in the triple dose reported fever.

Conclusion: The pilot study proves that Single dose antibiotics less effective than Triple dose antibiotics as prophylaxis for URSL. However, a bigger sample size is needed to fully assess the effectiveness of both therapies.

Urology Nursing Care

7 Competency building of Advance Practitioner Nurse (APN) for Urology and Nephrology patients. Miss Sajida Chagani. (AKUH).

In Nephrology and Urology increasing disease burden has outpaced the number of trained medical personnel. Lack of trained nurse practitioners lead to decrease efficiency of nursing staff which increases the mismatch between patient's need and available nursing care.

Objectives: Discuss Urology and Nephrology specific competencies for Advance Nurse Practitioner that complements the core competencies.

Explain levels of practice and career ladder for Uro-Nephro APN.

Methodology:

Literature review was done on SNAHL and Google Scholar using keywords "urology nursing", "advance nurse practitioner", "competency building" to evaluate the need of APN in Urology. Working of International organizations was reviewed including American Association of Nurse practitioner, American Urological association and European association of Urologic Nursing.

Results:

Uro-Nephro constitute of several subspecialties including: Uro-oncology, Urolithiasis, Andrology, Functional Urology, Hemodialysis, Interventional Nephrology and Renal Transplantation.

Uro-Nephro nursing require gradual progression of competencies following Benner's model of novice to expert and advance beginner, proficient, and expert level. Competencies involve knowledge and skills for managing acute and chronic disease conditions. This process include thorough understanding of Genitourinary pathophysiology, medical and surgical management, patient education and research. Limited focus on Urology and Nephrology in nursing curriculum and Lack of formal training of nurses is apparent.

Conclusion and recommendations

Competency building of APN includes several aspects of knowledge, skills and critical thinking. A common nursing platform will help in networking and provide opportunities for collaborative research across all centers and exchange knowledge at regional, National and international level.

8 Role of Clinical Nurse Specialist in Urology Nephrology Service at Tertiary Care Hospital.
Ms.Sutria Z.S (AKUH)

Title: Role of Clinical Nurse Specialist in Urology Nephrology Service at Tertiary Care Hospital
Presenting Author: Sutria Z.S:Nurse Specialist, Urology Nephrology Service at Aga Khan
University Hospital, Karachi, Pakistan

Chagani S.C.; Aziz,W.A,

Introduction:Clinical Nurse Specialist (CNS) is professional prepared with advance skills in clinical, education and scope of research. They manage the holistic care of individuals and patient populations, by providing direct care to the patients, participate in early recovery and facilitate in developing scope of practice in nursing and implement health policy. In our developing country the scope of APN is not well established. However, at a tertiary care hospital there is a role of Clinical Nurse Specialist (CNS) who is an expert in a particular area of nursing practice.Nurse specialists, also collaborates with inter and intradepartmental with multidisciplinary teams and work on the practices and education for the Nursing staff. This paper highlights the role of CNS which is equivalent to APN in developing knowledge and skills by initiating a new training methodology namely Simulation Based Workshops. This methodology contributes to development of practice and an arena for research.

Method:Cause and Effect Tool (fishbone diagram method) was used to identify issues in patient care faced by urology nurses. Management of urosepsis was identified as a learning topic.

Timeline was set and PDSA (Plan Do Study Act) tool was applied to improve services provided by urology nurses and improve outcomes. Biannual traditional training course for urology nurses at our tertiary care university hospital was revamped into Simulation Based Workshop. Nursing staff was acquainted with sepsis protocol and performed focused assessment of patients having Urosepsis on high fidelity SimMan 3G® simulator. Each participant had skills signed off at the end of simulation based training session. In order to identify improvement in knowledge, Multiple Choice Questions (MCQs) based pre and post tests are conducted. An evaluation form is filled by each participant to assess effectiveness of workshop so thatStrengths, Weaknesses Opportunities, Threats (SWOT)Analysis done.

Results:Overall 29 out of 34 nurses working in Nephrology-Urology service line participated in simulation based workshop. Pre-test average score of participants was 48%, whereas, on completion of this module average post-test score was 82% indicating significant improvement in knowledge domain. All participants had successful skill sign off with at least satisfactory performance. Verbatim as per participants' feedback: "Simulation-based training has opened up a new educational aspect". On SWOT analysis the main strength of project was that participants learned hands-on skills to identify early warning signs of sepsis and to manage them efficiently. Conclusion:CNS well contributed in developing Simulation based workshop and it significantly improved knowledge and skills of urology nurses through collaborative approach of multidisciplinary team. This advanced and didactic approach contributes to further research in measuring outcomes in patient care.

9 Relief of Urinary Obstruction hands on training: Low fidelity Simulation. Miss Sutria Z.S (AKUH).

Authors: Presenting Author: Sutria Z.S Nurse Specialist, Urology Nephrology Service at AKUH, Karachi, Pakistan, Chagani S.C

Introduction & Objectives:

Low fidelity simulations mirror the actual action or scenario closely but leave out factors that the user might experience in real life. It has become an integral part of medical education. The purpose of this project was to develop competency of outpatient nurses' to perform Urology specific procedures i-e indwelling catheterization, intermittent catheterization and CISC self-catheterization. To develop master trainer for the male catheterization skills and to evaluate the improvement in knowledge and hands on skills introduction of a new training methodology namely low fidelity Simulation.

Materials & Methods: To understand this phenomena log sheets were placed in Urology clinic procedure room. From March, 2019 to May, 2019 Data reveals that 33% Nurses independently catheterized patients in which most of them were female catheterization, however 67% Nursing staff provide assistance to residents for male and female catheterization.

In this project our goal was to develop Master Trainer and develop skills of staff who can independently perform male catheterization (Top most skill in outpatient area). Plan Do Study Act (PDSA) tool was used for better execution of this project and meet the timeline. Low fidelity simulation session focused on urology nursing related skills as mentioned above. This session benefited by improving hands on skills and knowledge regarding relief of urinary obstruction, evidence based practices from Lippincott procedures checklist utilized. Nursing staff was acquainted with safe practice and to prevent catheters related injuries and infections. Each participant had skills signed off to improve outcomes.

Results: Overall 15 Nursing Staff working in Nephrology-Urology service line participated in simulation based workshop. 07 Master trainer were developed from this session. Pre-test average score of participants was 48%, whereas, on completion of this module average post-test score was 92% indicating significant improvement in knowledge domain. From June to August 2019 data reveals that 64% Nurses independently perform catheterization skills at Outpatient area. Empowerment to technicians and Nurses

All participants had successful skill sign off with at least satisfactory performance. 80% Outpatient staff got signed off their skill. Besides this project ended up in more innovations like: Itemize checklist for procedures at supply center, Positive feedback from Doctors for staff's engagement and independently skills performance, Inpatient staff coverage in each shift to facilitate CISC, stream line procedure packages,

Conclusions: Skills based hands on training significantly improved knowledge and skills of urology nurses. Hence we ensure the coverage of master trainers in all the shifts for smooth patient deliverables without any delays. The impact which is planned to be calculated is cost impact for procedure performed by nurses VS doctors and satisfaction of patients. Furthermore, due to change in practice there is need to review infection rates post procedure.

Andrology

10 EFFECTIVENESS OF PENILE IMPLANTS IN ERECTILE DYSFUNCTION: AN INITIAL EXPERIENCE AT INSTITUTE OF KIDNEY DISEASES PESHAWAR. Mir Abid Jan, Liaqat Ali, Nasir Orakzai, Muhammad Shahzad

Background: The inability to attain or maintain erection is extremely distressing and demoralizing diseases of the men. The prevalence of Erectile dysfunction (ED) is actually the tip of the iceberg. The poor referral system, lack of health education, Unavailability of qualified andrologist and non availability of branded PDE5 inhibitors and vacuum devices have resulted in increase desperation of genuine patients with ED. The concept of Penile implants in ED especially in Pakistan has always been matter of debate due to social inhibitions, unavailability, higher cost and fear of infective complications, The Institute of Kidney disease HMC Peshawar has been the pioneer in starting Penile implants surgery in KPK

Objectives: To determine the effectiveness of Penile Implants, in terms of satisfaction in patients with Erectile Dysfunction.

Methods: It is a case series conducted in Department of Urology Team C, Institute of Kidney Diseases Peshawar from March 2018 till December 2019. Total number of 9 patients were included in the study by non probability convenient sampling. We excluded the patients with penile skin infections and psychiatric disorders of sex offenders.. The preoperative IIEF score and satisfaction index was compared with postoperative scores using structured Likert scale. The data was recorded on structured proforma and was analyzed on SPSS.

Results: The mean age of the patient was 42 ± 4.3 years. 3 patients were having co morbid of Diabetes mellitus. All the patients were refractory to commercially available tadalafil, Nutracitic aphrodisiacs and intracavernosal injection. 6 patients had end organ vascular failure while 2 had neurologic dysfunction and 1 had psychosexual dysfunction. According to IIEF, 8 patients were suffering severe ED while one had moderate ED. 7 patients under went Malleable implants while 2 has inflatable penile implants. Only 1 patients has mild surgical site infection in postoperative period that didn't resulted in loss of implant and was successfully treated conservatively. All the patients were regularly follow up for 12 months, The mean score for satisfaction index in pre operative period was 1.2 ± 0.8 . Significant improvement in satisfaction index was achieved in all patients after penile impants with mean of 4.1 ± 0.5 ($p < 0.001$) in 6th week of postoperative period, That was found sustained in 3 month, 6 month and 9 month follow up respectively. No significant difference in satisfaction has been observed ($p > 0.05$) in Malleable versus inflatable implants. **Conclusion:** Penile implants are very successful in management of Erectile dysfunction. It bears less complication rate in expert hands.

11 Validation and Reliability of Sindhi translation of International index of erectile function (IIEF-5)

Aijaz Shaikh¹, Shoukat Ali Mughal², Syed Azhar Hussain Shah³, Imran Memon⁴, Kashifu ddin Qayoom Soomro⁵, Zakir Hussain Rajpar⁶.

Abstract

Background: The International Index of Erectile Function 5 (IIEF5) is a standard questionnaire used for the evaluation of men with erectile dysfunction (ED). The Sindhi language version of this questionnaire is still lacking.

Objective: To develop and validate the Sindhi version of the IIEF5 (IIEF5-S) questionnaire for clinical use in the Sindhi speaking population.

Material and Method: Two independent experts in translations translated the original IIEF5 questionnaire into the Sindhi language. Translated version was re-translated in English by an expert who had command on both languages. The final version of the IIEF5-S was obtained after consensus was reached among the three urologists and an experienced Linguist. In this study, 50 persons with command on both English and Sindhi language were invited to participate. Only married males were invited in this study. Participants filled original IIEF5 in English and after two weeks filled the Sindhi translation. Internal consistency of Sindhi translation was assessed using Cronbach's alpha. The reliability of the Sindhi version of the IPSS was evaluated using the test-retest method.

Results: For the Sindhi IPSS version, Cronbach's alpha was 0.963. The test-retest reliability was 0.982.

Conclusion: The Sindhi version of the IIEF5 questionnaire has a high internal consistency, and it is a valid, reliable, and useful tool for the evaluation of Sindhi speaking men with ED.

Key words. Erectile dysfunction, IIEF 5, Sindhi translation.

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Pediatric Urology

12 FREQUENCY OF DIFFERENT METABOLIC ABNORMALITIES IN CHILDREN WITH RENAL STONES.

DR AFRA KHAN, DR ZAKIR KHAN, Brig Muhammad Akmal

Introduction: Urolithiasis is associated with an identified metabolic abnormality in approximately 40%–50% of children. The most commonly observed are hypercalciuria, hyperuricosuria, hyperoxaluria, hypocitraturia and cystinuria, with hypercalciuria and hypocitraturia being the most common.

Objectives: To determine the frequency of different metabolic abnormalities in children with renal stones.

Study design: Cross Sectional study

Settings: Department of Urology and Renal Transplantation, Armed Forces Institute of Urology, Rawalpindi

Study duration: 30th August 2018 to 28th February 2019

Materials & Methods: A total of 113 children with renal stones, 1 to 14 years of age were included. Patients with urinary tract infections, PUV, PUJ obstruction, reflux disease and CRF were excluded. Then 24 hours urine sample was taken and sent to the pathology laboratory for measuring the levels of uric acid, calcium, oxalate, citrate and magnesium. Presence or absence of metabolic abnormalities i.e. hypercalciuria, hyperoxaluria, hypocitraturia, hyperuricosuria and hypomagnesuria was noted.

Results: Age range in this study was from 1 to 14 years with mean age of 8.45 ± 3.14 years. Out of the 113 patients, 62 (54.87%) were male and 51 (45.13%) were females with male to female ratio of 1.2:1. In this study, I have found the hypercalciuria in 54 (47.79%), hyperoxaluria in 24 (21.24%), hypocitraturia in 64 (56.64%), hyperuricosuria in 21 (18.58%) and hypomagnesuria in 39 (34.51%) patients.

Conclusion: This study concluded that frequency of metabolic abnormalities is very high in children with renal stones and hypocitraturia and hypercalciuria are the most important metabolic abnormalities observed in these patients.

13 Initial Experience of Mini PCNL at department of Urology Liaquat University of Medical and Health Sciences Jamshoro.

Kashif Ali Khan, Waqqar Memon, Javed Altaf

Introduction Miniaturized instruments was initially used in 1997 for pediatric cases with the proposed advantage of lower morbidity. Today mini-PCNL usually describes tract sizes between 14 Fr and 22(1,2). However it has been reported that tract size is one of the main parameters affecting the complication rate.³

Methodology The data of the 42 patients were analyzed retrospectively. All patients' characteristics including age, sex, stone no, size and location were noted. All patients underwent mini PCNL using 18 F nephroscope and stones were fragmented by pneumatic lithoclast. The Clearance of stones was documented as complete or incomplete on the basis of stone fragments seen on table fluoroscopy and post-operative X-ray KUB.

Complications such as fever, significant pain and bleeding were assessed on first post-operative day.

Results Mean age of the patients were 7.67 year. Mean size of the renal stones was 10 mm ranging 10–20 mm. Complete clearance of stone were achieved in 37 patients (88 %) and 5 patients (12 %) had incomplete clearance(Fig 01) with clinically insignificant residual stones which were <4mm and were not required any auxillary procedure. Four patients required nephrostomy and rest were tubeless. Ante grade DJ placement was done in two patients which were removed after 2 weeks.

The major complication was hydroperitoneum in one recognized immediately and managed by placing the intraperitoneal drain. Three patient needed one unit of blood transfusion.

Postoperatively during the first 24 hours 3 patients had moderate pain and required injectable analgesics. 8 patients had vomiting which were managed with antiemetics. All of the patients were fit to be sent home on or before 3rd post-operative day.

14 Split Appendix Malone and Mitrofanoff for the management of Neurogenic bowel and Bladder.

Muhammad Aslam, Muhammad Kamran, Liaqat Ali, Muhammad Shahzad, Nasir Orakzai

PURPOSE:

To share our experience of Neurogenic bowel and bladder management by reconstructing Malone antegrade continent enema(MACE) procedure and continent urinary diversion (Mitrofanoff VQZ technique) at the same time by using split appendix

Material and Methods:

Between July 2017 and December 2018 ,30 patients, 5 to 15 years old (mean age 7.5 years) underwent Bladder augmentation with VQZ mitrofanoff and MACE using split appendix for the management of neuropathic bladder and bowel secondary to myelomeningocele. Proximal part of appendix was used for MACE by taking 3antireflux stitches by wrapping seromuscular layer of cecum around base of appendix whereas distal part of appendix is used for Mitrofanoff creating VQZ stoma. Average length of appendix was 9.5 cm (range 8 to 12 cm).

RESULTS:

All patients are clean and dry day and night .mean followup was 15 months (12 to 30 months). Only one patient has MACE stoma stenosis because she lost to follow up and didn't use the stoma for a year, stoma revision was performed on her .procedure time is also reduced in split appendix MACE and Mitrofanoff as compare to if monti tube or cecal flap is reconstructed for MACE.

Conclusions:

MACE and Mitrofanoff with or without bladder augmentation are very invaluable procedures the management of Neurogenic bowel and bladder. Split appendix is ideal channel for Both Mitrofanoff and MACE.

15 Efficacy of Modern stage repair in Extrophy Epispadias Complex: Experience at Institute of Kidney Diseases Peshawar. Dr Kamran Khan

Introduction

Extrophy Epispadias Complex is a rare congenital anomaly presenting to paediatric urology unit. affecting 1:50,000 to 1:100,000 live births. The surgical reconstruction of is challenging for the most experienced pediatric urologists, surgeons, and orthopedists. It is associated with significant morbidity. There evaluation, timings and surgical procedures for extrophy episapdias complex has always been refined and debated. The management of extrophy epispadias complex needs to be rationalized and prioritized according to age and clinical presentation of of the patients. The aim of this paper is to share our early experience of Modern stage repair in extrophy epispadias complex.,

Objective

To determine the successful outcome of Initial Modern stage repair in extrophy epispadias complex at Institute of Kidney Disease Peshawar

Methods: It is a descriptive ongoing study that was conducted in Team C of Institute of Kidney Diseases Peshawar from June 2014 till December 2019. We included 30 patients who presented to the OPD . Modern staged repair was performed in all the cases without need for involving orthopedic surgeons. Data was collected on structured proforma and was analyzed on SPSS.

Result: The mean age of the patient is 1.5 ± 0.7 years . All patients under went Modern stage repair comprising of extrophy and epispadias closure in one stage followed by bladder neck reconstruction. First stage repair was successful in 28 patients. While failure was recorded in 2 patients. Among 28 patients with successful first stage, Bladder neck reconstruction was performed in 4 patients, while 24 patients are still waiting for the 2nd stage. 3 patients after bladder neck reconstruction are socially continent.

Conclusion: The initial results of Modern staged repair are promising and effective in management of extrophy epispadias complex.

16 CAN REUSE OF CATHETER FOR CLEAN INTERMITTENT CATHETERIZATION VIA MITROFANOFF CAUSE SYMPTOMATIC URINARY TRACT INFECTION? FINDINGS FROM A TERTIARY CARE HOSPITAL. Dr Anila Jamshaid? (TIH)

Background: Clean intermittent catheterization is an important management option for patients who cannot empty their bladder effectively . Recurrent urinary tract infections are common in these patient, but are seldom symptomatic. The duration of use of a single catheter is also controversial.

Material and methods: Anon randomized prospective study was conducted at The Indus hospital , 32 patients were enrolled , divided in 2 groups depending upon the duration of Nelaton use . In group 1 total 17 patients were enrolled , with 12 (70.5%) male and mean age was 15.05 ± 4.26 years , while in group 2, 15 patients were enrolled with 14 (93.3%) male and mean age 10.26 ± 4.26 years . At the start of study in both the groups CBC and Urine C/S were taken and fresh nelaton was given to the patients After completion of 1 or 2 weeks (depending upon in which patient enrolled) , CBC and Urine C/S was re-collected.

Results: Urine culture at start of study 15 (88.2%) in group 1 and 12 (80%) in group 2 had positive urine c/s . The cultures taken at the end of the study showed 100% bacteriuria in group 1 and 13(86.6%) in group 2 ,In both the groups no fever (endpoint) was reported .

Conclusion: Single Nelaton catheter can be safely re-use for the Cic via mitrofanoff without causing symptomatic UTI.

17 Ambiguous Genitalia; Presentation and Categorization Based on Karyotyping: 12
1/2 years Experience at Department Of Urology and Renal Transplantation, Allied
Hospital/Faisalabad. Abdul Wahab, Muhammad Irfan Munir, Muhammad Akmal, Ghulam
Mahboob Subhani

Background: Ambiguous genitalia is a condition in which external genitalia of the patients are ambiguous (not clearly male or female) or their external genitalia do not match with the chromosomal sex. It is therefore better-called “disorder of sexual development” (DSD). It is generally divided into six categories; 46 XY DSD, 46 XX DSD, chromosomal DSD and ovotesticular DSD, XX male and XY sex reversal. There are different organizations in the world who cater for these patients. I_DSD registry is the largest organization which registers for different Cases of DSD and it provides means of connecting clinical and research workers around the world to enter standardized information aimed at improving clinical practice research and understanding different conditions affecting the sexual development. Data from 51 centers from 36 countries around the globe is being uploaded there and Urology Department Allied Hospital Faisalabad is the only center from Pakistan which uploads its cases.

It is a rare condition and its incidence is 1:5500 live births.

Objectives: (1). to categorized the cases of DSD according to the categories of DSD (2). to register the cases of DSD to I-DSD registry in Glasgow so that it may be used for study purposes for better management of these patients. (3) to look for different presentation of DSD. Patients and methods: Patients (Inclusion criteria); all the patients of ambiguous genitalia presenting to urology OPD of Allied hospital Faisalabad irrespective of age are included in the study. Informed consent was taken from all patients for management and for inclusion of their data for study purposes. Exclusion Criteria: All the previously operated patients were excluded from the study as they change the presentation of the patients Setting: Urology Department Allied Hospital Faisalabad, Pakistan. Duration: from 01-01-2007 to 31-08-2019. Study design: retrospective study.

Methods: Charts of patients were taken from hospital record room with the permission of medical superintendent to publish their data. Patients underwent karyotyping to assess for chromosomal sex., ultrasonography to localize internal genital organs, hormonal analysis (serum testosterone, FSH, LH and Estradiol) were also done. Similarly, Serum Alpha hydroxyprogesterone was done in cases of XX chromosomal sex and apparently male to reach the diagnosis and making decisions to assign gender. Gender assignment was done with proper counselling of parents and adult patients. Baseline investigations were done for fitness of the patients.

Results: A total of 34 patients were registered. Mean age at presentation was 16.38±9.38 years.

Interestingly age range was from 10 months to 42 years. Nine of 34 (26.47%) patients were brought up as female, one as intersex and rest were male. Among the female patients 6 (18.75%) were chromosomically male and were having perineal hypospadias and were later converted into male with proper counselling. Among the male patients two were diagnosed as with CAH having XX genetic makeup. Three patients (8.82%) were having extrophy epispadias complex, 14 (41.17%) patients were having perineal hypospadias, 7/34 (20.58%) penoscrotal hypospadias. four (11.7%) patients were having impalpable testes, rest had palpable testes mostly in the inguinal canal.

Conclusion: 1. Collaborative groups must be made in Pakistan to help these patients.

2. public/parents awareness campaigns must be launched for early diagnosis and management of these persons/children. Keywords: Ambiguous Genitalia, DSD, CAH, Intersex.

18 Mini PCNL- An effective modality in renal calculi in pediatric population. A case series of 73 patients. DR Umer Farooq (AFIU)

Objectives: To evaluate the efficacy and outcome of mini-PCNL in pediatric population of less than 5 years of age with renal calculi.

Methods: - We have conducted a prospective research on children who presents in Armed Forces Institute of Urology (AFIU) with renal calculi undergoing mini-PCNL using a 12F miniature nephroscope through a 14F dilator and metal access sheath for renal stone extraction. Patients were selected with the age range of 11 months to 5 years. Patients demographic details, procedural information and post-operative outcomes were documented.

Results:-A total of 73 mini-PCNL were performed in last 10 months in children whose stone burden ranges from 1.3cm to 3.2cm. There were 27 staghorn stones and 14 bilateral stones. The procedure was primary through a single puncture in 67 kidneys and secondary using a pre-existing nephrostomy tract in 6 kidneys. Access was successful in all primary and 4 secondary cases with a success rate of 97%. Stones were fragmented using lithoclast and fragments were irrigated or sequentially removed by stone grasping device. The mean procedural time from prick to stitch were 17 minutes to 31 minutes. The primary stone free rate was 94%. Post-operatively 2 patients develop febrile episodes managed conservatively with antibiotics and ureteric colic is seen in one patient managed with ureterorenoscopy and J.J stenting. No symptoms of chest complication are seen. Forty-two out of seventy-three patients were discharged with 48 hours of surgery while twenty-nine is discharged within 72 hours.

Conclusion: - Our research supports the previous reports that mini-PCNL is safe and effective in pediatric population. Postoperative infections and ureteric colic are the modifiable risk factors which can be prevented by antibiotic prophylaxis, conservative management and J.J stenting

19 Metabolic Abnormalities Detected In 24 Hour Urine Collection In Patients With High Risk For Recurrent Urinary Tract Stones at Sheikh Zayed Hospital Lahore. Dr Muhammad Rashid Jamal, Fazal ur rehman

Abstract;Objectives: In recent years there has been increasing trend noted in urinary tract stone disease prevalence. In this review we discuss metabolic abnormalities detected in 24 hours urine collection in patient with high risk for recurrent upper tract stones.

Material and Method: Literature was reviewed to summarized for high risk patient for recurrent upper tract stone disease, indications, outcome in 24 hour collected urine.

Results: The 24-h urine abnormalities were hypercalciuria (14.5%), hyperoxaluria (61.4%), hypocitraturia (57.2%), hyperuricouria (19.7%), hypomagnesuria (59.3%) and hyperphosphaturia (12.5%). Hyperoxaluria (61.4%) was the most common abnormality detected during the analysis of 24-h urine constituents. The most common etiologies detected were hypocitraturia (82%) and hyper-oxaluria (56%)

Conclusions: The metabolic parameter study will help to understand problem and treatment of that parameter will reduces the recurrent rate of upper tract stone disease.

Key words: Metabolic abnormalities, stone disease, 24hour urine, Recurrent Renal calculi, Upper tract

20 LONG TERM SAFETY AND EFFICACY OF VQZ PLASTY AS CONTINENT URINARY STOMA IN PAEDIATRICS WITH BLADDER DYSFUNCTION Dr. Abdul Samad (IHK), Nadeem Ahmed Shaikh, Mohammad QaziNaem, Syed Zafar Zaidi

Introduction and objective:

The management of bladder dysfunction can be complex phenomena and children suffering from this may face many challenges in the pursuit of preservation of continence, catch up of physical growth and quality of life. Bladder dysfunction causes deterioration of upper urinary tract if left untreated. Children are more vulnerable to these catastrophes which lead them to develop renal failure. This compels the invention of continent catheterizable conduit (CCC) which decreases the number of non-continent urinary diversion and its associated complications. In literature many techniques are defined for the formation of Continent Stoma (Mitrofinoff Procedure) but in our setup we prefer to do V-Quadrilateral-Z flap (VQZ) technique. We set out to determine the safety and efficacy of VQZ technique in terms of continence and associated complications.

METHODS:

We retrospectively reviewed the records of paediatric patients (aged 2-14 years) from May 2007 to April 2019 who underwent Mitrofinoff procedure (VQZ technique) for bladder dysfunction at The Indus Hospital, Karachi, Pakistan. The efficacy of VQZ stoma was assessed in terms of continence, pain free easily catheterization and safety with complications like stomal stenosis requiring revision, stricture formation and stomal prolapse or retraction.

RESULTS:

A total of 70 patients were enrolled in study out of which 50 (71%) were male and 20 (29%) were female. All patients were continent. The compliance was seen in 62 (88.5%) patients who were doing pain free easy CIC on regular basis. 8 (11.5%) patients were non-compliant who developed stomal stenosis followed by revision of stoma. While other complications like stricture, prolapse or stomal retraction were not noted in any patient.

CONCLUSIONS:

We recommend that VQZ stoma is safe and effective procedure for continent urinary diversion in children as it carries higher patient's compliance, improved quality of life and good cosmesis at the expense of minimal to no risk of complications.

Keywords:

VQZ stoma, Mitroifinoff, Bladder Dysfunction

21 Pediatric Percutaneous Nephrolithotomy: Does Amplatz sheath size matter? A single centered, case – control study. TKI

Sharjeel Saulat, Jahanzeb Sheikh, Syed Saeeuddin Qadri, Iqbal Mansoor, Mansoor Ejaz

INTRODUCTION: Percutaneous Nephrolithotomy (PCNL) is most used procedure for the renal stones management. 18- to 20-Fr Percutaneous tracts are made in standard PCNL. Several studies have reported that there is a fair chance of blood loss and post operative pain in standard size Amplatz sheath puncture, to decrease the morbidity related to larger tracts such as bleeding, postoperative pain, and potential renal damage; modifications to the size of the instruments have been made. We intend to validate the safety, efficacy, and applicability of Mini-Micro PCNL in our study.

MATERIAL AND METHODS: This is a case-control study of three hundred and thirty five patients with mean age of 6.79 ± 4.3 years with 223 (66.6%) males and 112 (33.4%) females. Data gathered prospectively between January 2016 to January 2019. The patients were divided based on Amplatz sheath size i.e. Group A (Cases) included patients from 12 to 16 Fr, 77 patients (23.1%) and Group B (Controls) 18- to 22 Fr, 258 (77.1%).

RESULT: In control group, (18Fr to 22Fr amplatz sheath), mean stone size was 1.7 ± 0.66 centimeters, with mean Pre OP hemoglobin, Post OP hemoglobin and Hemoglobin drop values of 11.6 ± 5.9 , 10.3 ± 2.0 and 1.2 ± 4.4 respectively, while blood was transfused in 40 (15.3%) and stone clearance rate of 40/258 (15.3%). Patients operated with smaller size of Amplatz sheath (12-Fr to 16- Fr sheath) had mean Hemoglobin drop of 1.65 ± 8.1 with pre OP hemoglobin 12.2 ± 10.8 and post Op hemoglobin of 10.5 ± 3.11 , mean stone size in Case category was 1.3 ± 0.6 centimeters with 75/77 (91.4%) stone clearance rate and 6/77 (7.8%) blood transfusion.

Conclusion: Cases with less HB loss and improved stone clearance indicated that Smaller Amplatz sheath are safe and effective. The smaller Amplatz Sheath size can be used in pediatric population as it results in less post-operative hemoglobin loss and better stone clearance rate.

22 To determine the safety and efficacy of mini PCNL using smaller nephroscope for kidney stones in children of age 12 years and less. Dr Firasat Majid ,Shafqat Ali tabassum (BVH)

Objective: To determine the safety and efficacy of mini PCNL using smaller nephroscope for kidney stones in children of age 12 years and less.

Place and Duration of Study: Department of Nephro-urology, Dialysis and Kidney Transplantation, B.V. Hospital Bahawalpur from 11th august 2017 to 15th September 2019.

Methodology: All the children of age 12 years and below diagnosed with kidney stone were included in the study. Patients with stone size more than 2.5 cm. (on ultrasound and/or CT scan KUB plain) or with non functional kidney were excluded. Patients with positive culture report of urine or having coagulation disorders were also excluded. Total 26 patients fulfilling the criteria were included with written consent of parents. Pre operative check for fitness for anesthesia was done. Mini percutaneous Nephrolithotomy (MPCNL) was performed under general anesthesia under pre-operative antibiotic. Rigid nephroscope 8/9.8 Fr, amplatz sheath 12Fr Swiss Pneumatic lithoclast with probe size 1.5 mm used. In 18 patients MPCNL was done with supra-costal tract above 12th rib and in 8 patients sub-costal tract was made. Post operative nephrostomy tube 10 Fr through tract site and ureteric catheter 4Fr and silicon catheter 10 Fr placed per urethra. All these tubes were removed with set protocol. Total operative time after puncture, mean hospital stay and need for blood transfusion (in whom post-operative fall of hemoglobin was more than 2g/dl) were noted. Follow up ultrasound for stone clearance was performed on 2nd post operative day then one week after the operation. Complications like chest tube placement and need of analgesia were noted. All the variables were subjected to statistical analysis using SPSS version 21.

Results: There were a total of 26 children with mean age was 5.2yrs \pm 2.2094 SD. Sixteen (61%) of them were male and ten (38%) were female with male to female ratio 1.6:1 (p=0.26). Mean hospital stay in hours, after surgery was 48 \pm 10.48 SD. Operative time after puncture was 42minutes \pm 8.78 SD. 18 children (69.23%) had complete stone clearance. Eight children (36.76%) had more than 85% clearance of stone with less than 3mm residual calculi. Five patients (19.23%) required blood transfusion post-operatively. None of the patient developed pleural effusion or need for chest tube placement.

Conclusion: Mini PCNL is safe and effective in children when performed in well selected patients. However comparative studies are required for more evidence.

23 The Management of urolithiasis in Children with Renal Failure. A need for Multidisciplinary Approach: Arshad ,Liaqat Ali, Muhammad Kamran, Muhammad Shahzad. Nasir Orakzai

Background: Urolithiasis is the most common ailment presenting to Urology clinics across the globe. Urolithiasis is very common in paediatric age group and represents high risk group owing to increase rate of recurrence of stones, that results in complications like obstructive uropathy, Renal failure, sepsis and even death. Many stones can form Stag horn but struvite stones although which is although rare in west is second most common type of stag horn stone in Pakistan. The surgical management of Urolithiasis disease in children has evolved considerably over the past three decades. Specifically, the introduction and refinement of percutaneous and ureteroscopic access to the upper tracts, along with the nearly simultaneous development of both extracorporeal and intracorporeal lithotripsy had revolutionized the management of renal calculi in children. Being high risk for pediatric age group, the complete stone clearance with good safety profile is the main stay in management of urolithiasis in children.

Objective: To determine the efficacy and safety of surgical management of pediatric renal stones associated with renal failure at Institute of Kidney Disease Hayatabad Medical Complex Peshawar..

Methods:It is a descriptive study conducted in department of Urology at Institute of Kidney Diseases Peshawar from March 2015 till December 2018. . We included all patients below 13 years irrespective of the gender. Total of 480 children with urolithiasis, who had acute or chronic renal failure were included in the study by non-probability consecutive sampling technique. All the preoperative, per-operative and post-operative data was collected on structures proforma and was analyzed on SPSS.

Result: 345 (72 %) were male while 134 (27.8 %) were female. Mean stone size was 18 mm \pm 7. The mean age of the patients was 8.2 \pm 4.2 years . Right side was involved 264 patients (55%). 480 presented with acute and chronic renal failure,1.4% with unilateral nonfunctioning kidneys, and 0.8% with pyonephrosis and perinephric abscess. Management of 480 patients was divided in to initial relief of obstruction by percutaneous nephrostomy and double j stents followed by definitive management in the form of, percutaneous nephrolithotomy PCNL IN 288, Open stone surgery in 56 Ureteroscopy in 69 and ESWL in 67 patients. Results of treatment showed that 72%of patients either recovered their renal functions or become dialysis free at the end of follow up period. Overall complete stone clearance after 6 weeks postoperatively was achieved in 460 patients treatment .

Conclusion: Complications of renal calculi in children bears significant problem even in the era of modern treatment. Renal failure associated with stones in children can be successfully treated initially by decompression. The magnitude of disease can be prevented by public education and organizing courses for family physicians as well as opening new stone clinics in the rural areas of the country equipped with modern treatment facilities.

Key words; Renal failure, pyonephrosis, chronic renal failure.

24 To compare the effectiveness of homemade enema with commercially available enema in pediatric neuropathic patients with faecal incontinence: A randomized controlled trial. Ihtesham, Muhammad Kamran, Liaqat Ali, Muhammad Shahzad, Nasir Orakzai

INTRODUCTION: Fecal incontinence is one of the most devastating condition of the children. Most common causes are spina bifida and anorectal malformation. It has both social and psychological implications and decreased quality of life along with other comorbidities. .. There are many treatment options like diet manipulations, medications including anti-motility drugs and surgery for the treatment of fecal incontinence but unfortunately, most of these treatments remains unsuccessful.

Most of these patients are treated with various types of enemas to clean out the colon and treatment response is monitored both clinically and radiologically. The bowel management program by Alberto Pena using different enemas is successful in 95 % of the patient with fecal incontinence. Enemas can be administered with Foley balloon catheter or alternatively by The Peristeen trans-anal irrigation system which is an effective, safe, non-operative alternative in children with faecal incontinence. Commercially The rationale of the study is since the Home made enemas are of low cost, easy to make, associated with less adverse effects and is as effective as commercially available enemas, So we want to know its feasibility in our context.

OBJECTIVE(S):To evaluate the effectiveness of home made enemas in pediatric Neuropathic patients with fecal incontinence.

HYPOTHESIS:Homemade enemas are as effective as commercially available enemas in pediatric patients with fecal incontinence.

MATERIALS AND METHODS: It is Randomized controlled Trial, parallel group trial design at Pediatric Urology Unit of Team C, Institute of Kidney diseases, Hayat Abad Medical Complex, Peshawar. Total of 80 patients were included in the study by lottery method. We included All Pediatric patients with neurogenic bowel with fecal incontinence from 3 to 16 years. We excluded Patients with pseudo-fecal incontinence, Patients with chronic constipation due to non-neurogenic causes, Patients with compromised renal functions. Data was collected on structured proforma and was analyzed on SPSS

Results: Total number of patient enrolled in study are 80, randomly allocated in two groups (40 patients in each group) Group A 18/40 (45%)patients are girls whereas in group B 20/40 (50 %)patients are girls. In both groups 80 percent patients have neurogenic bowel secondary to spina bifida whereas 20 percents are of anorectal malformation.Reultswere compared between two groups regarding amount and timing of fecal leakage after enema administration. 85 percent of patients are clean in group A and 90 percent of patients are clean after enema administration in group B (P value). No adverse event observed during the enema administration in each group.

Conclusion :Home made enemas are as effective as commercially available enemas in fecal incontinent patients due to neurogenic bowel and can be safely used in neurogenic patients with Renal dysfunction.

25 Priapism In a 6 Year Old Boy: A Rare Presentation

Basit Masood, M. Waqas Iqbal, Aiza Shafqat, Ayaz Khan.

Urology and Department Of Kidney Transplantation, Shifa International Hospital, Islamabad.

INTRODUCTION: Priapism is a prolonged full or partial penile erection lasting ≥ 4 hours unrelated to sexual stimulus. It is a urological emergency and aim of management is to prevent penile disfigurement/shortening, erectile dysfunction and psychological sequelae. There are currently no widely accepted guidelines on the management of priapism in children.

The term priapism is derived from the Greek and Roman mythological figure Priapus, son of Aphrodite and God of fertility who was depicted with a giant erect phallus and was a symbol for male generative power. Priapism was first described in the modern literature in 1616 by Petraens. However, it was not until 260 years later that priapism was first reported in a child.

OBJECTIVE: We report a case of a 6 year-old boy with who presented with 12 hours of painful penile erections, starting soon after his last hemodialysis. A diagnosis of ischemic priapism was rendered.

MATERIALS AND METHODS: This study was conducted in urology department at Shifa international Hospital, Islamabad

Patient information is taken from hospital medical records

CASE HISTORY: A 6 years old boy who is known case of hypertension and end stage renal disease secondary to congenital nephrotic syndrome and was on hemodialysis for past 3 months. He was given erythropoietin for low hemoglobin levels. After his last dialysis, soon he developed erections and was brought to emergency room after 12 hours of persistent, painful penile erection which worsened over time.

Immediate work up revealed polycythemia. He was diagnosed with ischemic priapism and was planned surgical treatment. Winter Shunt and Al Ghorab shunt relieved his symptoms. During his stay, workup for different hypercoagulable states was done, all came out to be negative.

Conclusion: Ischaemic priapism is a urological emergency. If left untreated, leads to necrosis, fibrosis and invariably future erectile dysfunction. Rapid resolution of ischaemic priapism prevents permanent cavernosal structural damage and is associated with improved prognosis for potency later in life. Psychological sequelae may also be reduced with early intervention. Treatment should not preclude or delay targeted corporal measures to reduce the child's priapism.

There is currently a paucity of understanding and evidence-based medicine in pediatric priapism, the management of which is, in part, therefore based around findings in adults.

26 pontaneous Sub-capsular Renal Hematoma in 15 Years Old Boy : A Case Report

Basit Masood, Amna Butt, Ijaz Hussain.

Pediatric Urology Department, Shifa International Hospital, Islamabad.

INTRODUCTION: Spontaneous sub-capsular renal hematoma is a diagnostic dilemma and a rare condition in clinical practice. Although lots of research has been done in the subject, still it remains elusive. Previously, renal tumor was thought to be the underlying cause when there was no obvious etiology and radical nephrectomy was advised. We reproduce our experience with a case treated recently by conservative approach with good outcome.

OBJECTIVE: We report a 15 yearold boy presenting with sudden onset of right flank pain and was found to have subcapsular collection in the right kidney on ultrasonography. Finding was confirmed on computed tomography. No particular cause for the condition could be found.

MATERIALS AND METHODS: This study was conducted in urology department at Shifa international Hospital, Islamabad. Patient information is taken from hospital medical records

CASE HISTORY: Spontaneous sub-capsular renal hematoma is a rare entity. We report a 15 yearold school going boy presented to our clinic with sudden onset of right flank pain without any history of trauma , tumor , stones and malignancy. He was found to have 70ml of sub-capsular collection in the right kidney on ultrasonography. Finding was confirmed on computed tomography. His hemodynamic status and hematological workup was completely unremarkable, no particular cause for the condition was found. Symptoms and size of the collection decreased with conservative management.

Presently, he is on regular follow-up and asymptomatic from last 2 months.

Conclusion: Spontaneous sub-capsular renal hematoma might arise from a variety of situations. Although initially small renal cell carcinoma was thought of as the most common reason, but the cause might not be evident in many cases.

Conservative management is still a cornerstone in stable patients. We believe, not all patients with sub-capsular renal hematoma requires nephrectomy.

27 Case Report :

Mayer-Rokitansky - Kuster- Hauser Syndrome with stine in left Ectopic pelvic kidney -A rare case Report. Mohammed Mansoor ,Mehtab Memon department of urology JPMC Karachi
Abstract:

Mayer -rokitansky -kuster -hauser syndrome (MRKH) is a very rare congenital anomaly characterized by vaginal agenesis and spectrum of different genitourinary tract anomalies. Here we report a case of 32 years old female married since 8 years infertile with history of primary amenorrhea presented to us with complaint of suprapubic pain.GPE was unremarkable ,CT pyelogram was showing left kidney ectopically placed in the pelvis at L4 to S4 vertebral bodies showing abnormal anteriorly directed pelvis with hyperdense calculus 1.6 cm with mild hydronephrosis no hydro ureter no any distal calculus. Right kidney normal in size , shape and location. Uterus rudimentary about 1.7 into 1.7cm , right ovary not visualised while left ovary small in size. We plan left pyelolithotomy through lower midline abdominal incision, before that cystoscope is done to place left sided retrograde ureteric catheter we found vaginal agenesis and flatten fourchettes.

28 Feasibility and efficacy of Micro-PERC in children for small size renal stones.

Ghulam Mujtaba Zafar, Naseem Javed, Fawad Humayun

Objective: To evaluate feasibility and efficacy of Micro-PERC (4.8 Fr) in children with small size renal stone.

Materials and Methods: Data was recorded prospectively after approval from hospital ethical committee. All patients operated for small size renal stones at our unit from June 2018 to October 2019 were included in the study. The data was analyzed for stone fragmentation, operating time, hemoglobin drop, hospital stay, stone clearance rate and complications.

Results: Total eighty seven patients were operated for renal stones from June 2018 to October 2019. Sixty five children underwent mini-PCNL while Twenty two were treated by Micro-PCNL (Micro-Perc 4.8 Fr). The median age of children was 8.5 years (1.5-15 years) and Stone size ranged from 8-12 mm (mean 10 mm). The stone locations were pelvis in 14 (63.6%), mid calyx 2 (9%) and lower calyx 6 (27.2%). The operative time ranged from 40 to 70 minutes. The hemoglobin drop ranged from 0-3.0 g/dl (mean 0.9 g/dl). Hospital stay was 1-4 (1.2) days. LASER dusting was used in 20 patients while pneumatic lithotripsy was used in two cases who were converted to mini-PCNL. Stone clearance rate was 81% at day one and 95.45% at one month. Clavien grade 1 complications were seen in 4 (18%) children in the form of fever and flank pain while grade 3 complications were seen in 2 (9%) patients.

Conclusion: Micro-Perc is a feasible and effective minimal invasive modality to treat small size renal stones in children with good stone clearance rate and minimal morbidity.

Benign Prostate Disease

29 Outcome and Complications of Bipolar Transurethral Resection in Saline (TURIS) in 285 BPH Patients with Retention of Urine

Abdul Khalique, Mudassir Hussain, Asad Shahzad Hasan, Murli Lal, Manzoor Hussain, Altaf Hashmi, Adib Rizvi
Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction:

Transurethral resection of prostate is the gold standard for the treatment of benign prostatic hyperplasia which is the most common non-malignant disorder of the prostate, affecting over 50% of the elderly male population. Transurethral resection (TUR) syndrome, for example, is a rare but serious clinical complication of a monopolar resection carried out with a electrolyte-free irrigation solution (e.g., glycine). To reduce the risks of the monopolar circuit, resectoscopes are today commercially available, which by behaving like electric dipoles, allow the patient to be excluded from the circuit. This allows the use of physiologic saline as irrigation solution annulling the risk of a TUR syndrome and intoxication by glycine.

Objectives: To assess outcome and safety of TURIS in BPH patients with retention of urine.

Patients and Methods: Between January 2014 and December 2018, 285 patients of BPH with retention of urine underwent TURIS at our institute. All the procedures were carried out on bipolar device equipment in normal saline (0.9%). The resectoscope used was 26 FR loop = 24 FR size with continuous irrigation system. In the postoperative period, episodes of haematuria, TURP syndrome, blood transfusion, thermal skin lesions, operation time, hospital stay, and fever were noted during admission. After discharge these patients were followed in prostate clinic for episode of retention, stricture urethra and bladder neck contracture; UFM was routinely done in all patients post operatively after removal of catheter.

Results: Age of the patients ranged from 50 to 85 years and volume of prostate ranged from 30 – 80 gm. The postoperative follow up ranged from 3 months to 20 months. None of the patients developed TURP syndrome or skin burns. Post operatively 7 patients (0.024%) developed haematuria necessitating blood transfusion and 3(0.010%) needed redo fulguration. Two (0.007%) developed orchitis, none of the patients developed renal failure and TURP syndrome. Out of 285 patients 270 (94.7%) were catheter free. In long term follow up one (0.0035%) patient developed stricture urethra and none bladder neck contracture, during follow up.

Conclusion: TURIS is safe and efficacious in BPH patients with retention of urine and large size glands with minimum morbidity and no mortality it avoids the risk of TURP syndrome.

30 THE EFFECT OF INTRAVESICAL PROSTATIC PROTRUSION ON URINARY OUTFLOW OBSTRUCTION

Hira Anis Bumbia, Niaz Soomro, Atif Javed, Ahmed Fawad

BACKGROUND

Benign Prostatic Hyperplasia (B.P.H) effects upto 80% men older than 45 years of age worldwide. Intravesical prostatic protrusion (IPP) cause obstruction at bladder neck and lumen of urethra. Specially the median lobe form IPP leading to the lower urinary tract symptoms (LUTS). In the presence of IPP the effect on LUTS is less researched.

OBJECTIVE

To study the impact of IPP on the bladder outflow obstruction.

METHODOLOGY

This Quasi-Experimental study of 200 patients (meeting the eligibility criteria) divided into 2 groups of 100 each, with and without IPP) from June 2016 to May 2017 at Ziauddin University Hospital, Karachi. After consent, data were recorded and both groups were compared for IPSS, Uro-flowmetry (UFM) and U/S post void residual (PVR). Student t-test and chi-square will be used as appropriate. P value ≤ 0.05 will be considered significant.

RESULTS

The mean age of the sample stood at 66 years ($SD \pm 10.3$). In group A (without IPP) with IPSS mild 10.1%, moderate 64.9%, severe 25% in Group B (with IPP), mild -10.2%, 17% and 26%, moderate 11.7%, 19.8% and 33.6% and severe 22%, 25.6% and 23.3% in 3 grades respectively. IPP has significant effect on UFM and PVR when compared with group without IPP. Without IPP normal UFM 47% which has reduced to 8% in group with IPP.

Conclusion

The IPP has significant impact on IPSS, UFM and PVR. Thus additional modalities may be employed to supplement medical treatment for better patient outcome.

KEYWORDS

Bladder Outflow Obstruction, Intravesical Prostatic Protrusion, International Prostate Symptom Score (IPSS) & Benign Prostatic Hyperplasia (BPH).

31 COMPARISON OF OPERATIVE OUTCOMES OF MONOPOLAR AND BIPOLAR TURP

Muhammad Zaheer , fazal ur rehman

BACKGROUND: TURP is as yet viewed as an useful surgical technique and has been set up as the golden standard with effective functional short and long-haul results with a death rate moving toward zero within the most recent decade, it is still connected with critical morbidity. Bipolar resection of the prostate depends on a marginally unique technological idea by consolidating both the dynamic and return poles for a similar electrode, a conductive liquid medium (ordinary saline) rather than the regular nonconductive irrigation liquid fluid (glycine, sorbitol and mannitol) can be utilized. Bipolar TURP has increased much fame and has become accessible worldwide.

OBJECTIVE: To compare difference in operative outcomes of mono polar TURP versus bipolar TURP and bipolar TURP has lower chances of TUR syndrome, dilutional hyponatremia, fall of hemoglobin and lower catheterization time in prostate with large size.

METHODS: This is a controlled trial study which consist of 130 patients 65 patients in each group from Urology Outpatient, s Department of Urology, Shaikh Zayed Hospital, Lahore were included in the study after permission from ethical committee and research department. The subjects were segregated into two groups of 65 patients each on the basis of size of prostate. Sixty five patients were also in Group A (size upto 60gm) while 65 patients were in Group B (size between 60 to 80gm). Patients in both groups were randomly assigned for monopolar and bipolar techniques by blind balloting.

RESULTS: The mean age of Group A was 56.15 ± 3.57 years and Group B was 54.51 ± 3.66 years. The mean prostate size on USG in Groups A monopolar and bipolar was 47.92 ± 5.88 grams and 37.5 ± 2.23 grams, respectively. While, the mean prostate size on USG in Groups B monopolar and bipolar was 66.68 ± 2.21 grams and 68.14 ± 3.05 grams respectively. The mean prostate size (apx) resected in Groups A monopolar and bipolar was 22.23 ± 3.11 grams and 21.08 ± 2.12 grams, respectively. The mean duration of procedure in groups A monopolar and bipolar was 47.11 ± 3.12 minutes and 46.83 ± 2.08 minutes, respectively. The mean blood Hb level (preoperative) in Groups A, monopolar and bipolar was 12.55 ± 1.41 mg/dl and 12.54 ± 1.05 mg/dl, respectively. The mean blood Hb level (1 hour) in Groups A, monopolar and bipolar was 12.33 ± 1.13 mg/dl and 11.84 ± 1.25 mg/dl, respectively.

The mean blood Hb level (24 hours) of Groups A, monopolar and bipolar was 11.91 ± 1.03 mg/dl and 12.36 ± 1.17 mg/dl, respectively. The mean sodium level (preoperative) of Groups A, monopolar and bipolar was 142.86 ± 1.93 and 144.27 ± 3.43 , respectively. The mean serum sodium level (at 1 hour) in Groups A, monopolar and bipolar was 138.52 ± 6.36 and 140.72 ± 3.21 , respectively. The mean serum sodium level (at 24 hours) in Groups A, monopolar and bipolar was 134.34 ± 4.09 and 134.76 ± 1.88 , respectively. TURP syndrome incidence in Groups A was not reported while it was observed in Group B monopolar and bipolar as 1 s(1.5%) and 0 (0%) respectively. The mean foley removed on hours in Groups A monopolar and bipolar was observed as 35.43 ± 2.12 and 33.4 ± 3.89 , respectively.

CONCLUSION: It is concluded that in our study Monopolar TURP and Bipolar TURP are almost equal in complications rate, but a slight difference in Bipolar (Group B) has added advantages of mean prostate size, less time of transurethral resection of prostate, and early removal of Foley catheters

KEYWORDS:

32 Monopolar TURP, Bipolar TURP, Prostate, Operative outcome

Frequency Of Electrolyte Derangement After Transurethral Resection Of Prostate Among Patients Having Benign Prostatic Hyperplasia

Zubda malik, Aziz Abdullah

Background: Transurethral resection of the prostate (TURP) remains the surgical gold standard for the treatment of benign prostatic hyperplasia (BPH). Electrolyte imbalance is one of the most worrisome complications of TURP especially due to risk of developing overt TUR syndrome.

Objective: To determine the frequency of serum electrolyte derangement in patients after transurethral resection of prostate.

Study Design: Descriptive Case Series Study.

Setting: The Department of Urology, Liaquat National Hospital, Karachi.

Duration: From 27th September 2018 To 26th March 2019.

Material and Methods: Total 185 patients with benign prostatic hyperplasia were included. Patients were undergone TURP procedure. All included patients were assessed for their serum electrolytes postoperatively. The fluctuations in the values of serum electrolytes were assessed according to their references value. Descriptive statistics were calculated using SPSS. Effect modifiers were controlled through stratification. Post stratification Chi-square test was applied considering P value ≤ 0.05 as significant.

Results: The mean age was 69.26 ± 7.68 years. Mean PSA level, prostate size, IPSS score and Q-max was 2.78 ± 0.65 ng/ml, 55.72 ± 14.38 grams, 27.89 ± 4.51 and 5.85 ± 2.48 ml/sec respectively. Mean used irrigation volume was 20.11 ± 6.70 liters. Mean resection time was 43.03 ± 11.49 minutes. Mean serum sodium, serum potassium, serum bicarbonate and serum chloride 138.47 ± 4.26 mmol/L, 4.14 ± 0.68 mmol/L, 26.21 ± 5.16 mmol/L and 104.81 ± 6.40 mmol/L respectively. Electrolyte derangement was found in 17.3% patient.

Conclusion: Electrolyte derangement was 17.3%. The age, used irrigation volume, resection time, hypertension, and diabetes mellitus are found risk factors for the derangement.

Keywords: Frequency, Serum Electrolyte Derangement,

33 Transurethral Resection of Prostate Dilatation before TURP is essential or not
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Introduction: Bipolar transurethral resection of prostate (B-TURP) was introduced as an alternative procedure to minimize the surgical complications of monopolar TURP (M-TURP). However, there are concerns about increased incidence of stricture urethra (SU) post TURP. For fear of stricture formation dilatation before TURP is considered as essential part.

Materials and methods: This is a retrospective case control study. TURP was performed between Jan2019 to June 2019. TURP were performed with a 26 Fr resectoscope; patient are divided in two groups one in which dilatation done before TURP and other group in which dilatation not done. Patient were followed at 3 and 6 months post surgery and UFM and IPSS of patients with lower urinary tract symptoms done and. The patients with urinary flow rate of <10 ml/sec on uroflowmetry underwent retrograde urethrography to assess for development of SU.

Results: Twenty patients were selected to each arm. Age of the patients ranges between 55 to 75 years. Prostate size ranges between 40 to 80 ml and mean Q max was 15+3 . No patient developed stricture at 3 to 6 month of follow up as depicted by Q max >12 ml in both groups.

CONCLUSION: We conclude that it is safe to avoid dilatation before TURP as we did not find stricture in group in which we did not dilate the urethra before TURP.

34 Effect of Tamsulosin in Catheterized Patients suffering from BPH

Farhan Khan, Abdul Khaliq, Mudasir Hussain, Gauhar Sultan, AsadShahzad, Murli Lal, Altaf Hashmi, Adib Rizvi

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Introduction: Benign prostatic Hyperplasia (BPH) is a common cause of voiding dysfunction in men. BPH is rarely a life threatening condition and is most commonly associated with acute urological complications most important of which is Acute Urinary Retention (AUR). α 1-Adrenergic receptor antagonists are the treatment of choice for the management of patients with BPH and about 80% of the physicians use α 1-blockers to treat this common condition.

Objective: To evaluate the efficacy of tamsulosin for the treatment of patients with acute urinary retention (AUR) due to benign prostatic hyperplasia (BPH) in terms of trial without catheter (TWOC).

Subjects and Methods: A total number of 136 patients who presented with acute urinary retention (AUR) due to BPH, having age 40-70 years were included in this study. Patients were randomly allocated into two equal groups by Draw randomization method. Group A: allotted to patients in whom tamsulosin (0.4 mg) was given immediately after insertion of foley catheter and Group B (control group): allotted to the patients in whom placebo drug was given after insertion of foley catheter. Foley catheter was removed after a period of 3 days after starting the medical treatment and trial without catheter (TWOC) was evaluated. Data analysis was carried out using SPSS 20.0. Chi-square test was applied to compare the success of TWOC in Tamsulosin group and Placebo group. Post stratification Chi-square test was applied taking P-value ≤ 0.05 as significant.

Results: The mean age of the study patients was 59.45 (S.D. 8.05) years. Meanduration of BPH disease was 15.39 (S.D. 6.84) months. There were 35(51.5%) patients in Tamsulosin group in which trial without catheter was successful and only 22 (32.4%) patients in placebo group in which trial without catheter (TWOC) was successful (p-value 0.02). There was no effect of age and duration of BPH disease on the outcome of this study.

Conclusion: Tamsulosin is an effective drug for the treatment of patients with acute urinary retention (AUR) due to benign prostatic hyperplasia (BPH).

35 Safety and Efficacy of Early Catheter Removal after TURIS

Ghulam Mustafa, Mudassir Hussain, Abdul Khaliq, AsadShahzad Hassan, Murli Lal, Altaf Hashmi, Adib Rizvi

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Introduction: Resection in saline (NaCl) is now widely used for prostate and bladder growth resection. Saline is used as an irrigation medium and conductor, eliminating the need for a neutral electrode to be connected to the patient's body.

Objectives: This study was conducted to signify efficacy and safety of early catheter removal after transurethral resection in saline (TURIS) in prostate size between 30 to 80 grams.

Materials and Methods: The clinical data of 50 consecutive men who underwent TURIS for BPH were retrospectively analyzed. All procedures were carried out by a multiple surgeons between July 2019 and Oct 2019 at SIUT. Foley catheter of 50 patient underwent TURIS were removed at 1st postoperative day in morning. Patient baseline characteristics, and outcomes were compared, and major complications were recorded.

Results: TURIS had the shortest operation time compared with conventional TUR-P. Catheter of the patient removed on 1st pod. Voiding trial was successful in 99% of patients, 20% of patients had initial complains of mild hematuria which resolved on 5th to 9th day, ufm was performed on 9th day, qmax ranges between 12-15ml/sec, one patient developed retention and recatheterized.

Conclusion: In conclusion, early catheter removal after TURIS is safe and improve patient satisfaction.

36 CORRELATION OF RESECTED VOLUME WITH IMPROVEMENT IN IPSS AFTER TURP: MUHAMMAD SHABIR, LIAQAT ALI, FAIZA HAYAT, NASIR ORAKZAI

Background: Transurethral resection of prostate is considered gold standard in management of Clinically benign enlarge prostate. One of the major indication for TURP is severe IPSS and poor Quality of life. There are several factors that undermines the effectiveness of TURP in clinical improvement in IPSS like Diabetes Mellitus, neurological deficit, detrusor instability etc but the correlation of resected volume with improvement in IPSS has been little studied in literature. The rationale of our study is based upon a research question that how much resection might be considered sufficient in improving IPSS and QOL after TURP

Objective: To study the correlation of resected volume with subjective improvement in IPSS and objective Improvement in uroflowmetry aftertransurethral resection of prostate.

Methodology: It is a co-relational analytical study conducted in department of urology at Institute of Kidney Diseases Peshawar from June 2014 till December 2016. Total number of 126 patients

Were included in the study by non-probability consecutive sampling. We included the patients requiring TURP with sever IPSS of 19 -35 and poor quality of life. We excluded patients with chronic retention, detrusor instability or suspicion of neurogenic bladder.

All the data including prostatic volume in grams on Ultrasound, resected volume of the Prostate, postoperative IPSS and uroflowmetry was analyzed on SPSS.

Results: The mean age of the patient was 64 ± 4.5 years. Mean Preoperative IPSS was 27 ± 3.4 . Mean Pre-operative Prostate weight was 67 ± 6.2 gm. (Range 35-105 gm). Mean Preoperative max flow was 5.1 ± 1.2 ml/s and average flow was 3.7 ± 0.8 ml/s. Mean Resected volume was 29 ± 7.6 gm (Range 10-72 gm). Mean postoperative IPSS was 11 ± 6.9 ,Max flow was 19 ± 4.5 ml/s and average flow of 14ml/sec. Pearson coefficient test revealed significant correlation 0.001 in improvement in IPSS after 30 % of resected volume against preoperative prostatic weight.

Conclusion: A 30 % of resection against preoperative prostatic volume is associated with significant improvement in IPSS after TURP

Key words: Bladder outlet obstruction, BPH, TURP

37 Endoscopic Management Of Intravesical Foreign Body: A Challenging Condition

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Summary:

A 25 year old female presented to the urology outpatient clinic in early pregnancy with history of manually inserting hair pin into the urinary bladder through her urethra 4 years back. She lost to follow up during pregnancy and then presented again after C-section. A plain abdominal film of the kidneys, ureters and bladder confirmed the location of hair pin and large stone around it in the urinary bladder. She was planned for cystoscopy followed by endoscopic or open removal of foreign body and stone. At cystoscopy urethra was normal but in urinary bladder there was a hairpin with stone formation at its proximal end and distal portion of hair pin was embedded in the bladder neck. Hair pin was pushed back in bladder to separate from the bladder neck followed by stone fragmentation using stone punch. After complete removal of stones the hairpin was aligned in the line of the urethra and removed with the help of forcep. Unusual genitourinary activity has been described for several centuries and is characterised by the deposition of foreign objects in the genitalia(1). The most common cause for such activity is sexual stimulation, but psychiatric disorders and intoxication are also associated(2). Management involves retrieval of foreign bodies and evaluation of psychosocial factors.

Benign Renal Pathologies

38 Our First 100 Laparoscopic Nephrectomies. Dr. MUHAMMAD Shoaib Mithani, The Kidney Center Khi

We have done 100 cases between April 2017-March 2019 and decided this 24 months' period into four Quadrants of six months each. Our frequency of cases in each quadrant of six months was 3,25,19&53 cases respectively. Mean age of patients was 34 years while the range of age distribution was 12 years to 72 years. Male to female ratio was 49:51. Mean weight was 59 kg. (34-95 kg). Right: Left Nephrectomy side. 54:46%. Energy source used 50% Harmonics, 48 cases Ligasure and 2 cases Diathermy. Indications of surgery 100 benign cases, 25% had Atrophic Kidneys, 41% Dilated kidneys and 34% had Pyonephrotic Kidneys. Mean kidney size was 9.2 cm. Previous Abdominal surgery 32 % Our mean operative time was 108 minutes while 66% cases had operative time =less than 120 minutes. Mean blood loss was 86 ml. 38% patients had blood loss less than 30 ml. Drain was inserted only 55 cases, in 45% no drain needed. Oral intake was started on same day of surgery in 28% cases, while cumulatively 88% started oral intake on day 1 after surgery. 73% were completely ambulatory on day 1 of surgery. IV or oral Analgesic required only for 2 days in 90 % cases then stopped. LOS 2 days 25%, 3 days in 26% and 3 days 49%. Most of these were in first year of our experience. Discharge Day 1 PO in 45 cases, Day 2 PO in 35 cases, Day 3 or more in 20 cases. Sling method used in 60 cases corresponding to last one year of our experience.

39 Laparoscopic Nephrectomy for Benign Renal Diseases: An Initial Experience
Khizar Hayat,¹ Kamran Zaidi,² Nisar Ahmed,³ Touqeer Aslam,⁴ Ather Hameed,⁵ Ahmed
Salman Waris⁶

Objective: To evaluate the safety and efficacy of Laparoscopic nephrectomy for benign renal diseases at Department of Urology Post Graduate Medical Institute / Lahore General Hospital Lahore.

Introduction: Since the first laparoscopic performed by Clayman in 1991 for a benign kidney disease. Laparoscopic Nephrectomy became a procedure of choice for both the benign and malignant renal diseases. As well as the live kidney donation developed rapidly laparoscopically. This surgical procedure has various advantages like short hospital, quick post-operative recovery;

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very; early return to work and cosmesis. At the same time there are various challenges which include long learning curve conversion to open surgery and other complications. We performed 16 laparoscopic nephrectomies for benign renal disease. We analyzed our data according to these parameters operative time, blood loss conversion rate, analgesia requirement in post-operative hospital stay and complications.

Patients and Method: A total number of 16 patients' undergone laparoscopic nephrectomy. We use transperitoneal approach in all cases. The data was analyzed regarding preoperative and postoperative variables

including operative time, blood loss, complications, hospital stay, conversion rate and analgesia requirements.

Results: All patients underwent Transperitoneal Laparoscopic Nephrectomy. Out of 16 patients 9 had renal stone disease, four had pelviureteric junction obstruction, and one each had reflux nephropathy, tuberculosis and chronic pyelonephritis. The age range was 12 to 55 years with mean age of 27.75 ± 12.29 years. The blood loss was 50 to 500ml in benign cases with average of 203.44 ± 117.5 ml. Conversion rate was 12.5% noted. The hospital stay was ranging from 3 to 15 days with mean of 5.5 ± 3.11 days. Operative time was ranging from 100 to 350 minute with mean operative time of 195 ± 78.65 min. The surgical complications were port site wound infection in 2 cases, residual stone at specimen extraction site in one case and 2 had surgical emphysema of abdominal wall. Prolong ileus was observed in 2 cases. Specimen extraction site incisional was noted in one patient which was repaired.

Conclusion: Transperitoneal Laparoscopic Nephrectomy is a procedure of choice for inflammatory conditions because of less morbidity short hospital stay reduced analgesia requirement and cosmesis as well as early return to work. The difficulties are dense adhesions in perinephric, hilar region that cause very slow progress, bleeding and conversion to open nephrectomy.

40 AUDIT AND CAUSES OF NEPHRECTOMY IN NON-FUNCTIONING KIDNEY.

NISAR AHMED SHAIKH, MUHAMMAD IMRAN SOOMRO, AAMIR ALI SHAIKH AND MALIK HUSSAIN JALBANI

OBJECTIVE:

To evaluate causes and audit of conventional nephrectomy in 395 cases.

METHODS:

The Retrospective study conducted in 1500 benign kidney disease cases, from January 2018 to December 2018 at urology department CMCTH/SMBBMU Larkana. Collected data included age, sex, affected side, clinical presentation and routine investigation performed like Blood CP, ESR, Blood urea, Serum creatinine, X-Ray IVP and MAG-3 Renal scanning for proper diagnosis in all cases. Among 1500 cases 395(26.33%) needs conventional nephrectomy for non-functioning kidney.

RESULTS:

The mean age of patients was 25.2 years $SD\pm 15.25$ years and Mean duration of stone disease was 14.7 month $SD\pm 9.98$ month. Out of 1500 cases of benign kidney diseases, we did 395 (26.33%) nephrectomies. The main cause of 365 (92.40%) nephrectomies was renal and ureteric stone while in 30(7.59%) cases, cause of nephrectomy was chronic pyelonephritis (small non functioning kidneys) and neglected ureteropelvic junction obstruction. Main factor responsible for late presentation, leading to nonfunctioning kidney was Mal practice of Quacks and general practitioners, ignorance, lack of knowledge for referral, poverty, lack of infrastructure and transport problems.

CONCLUSION:

Higher rate of Nephrectomy 395 (26.33%) out of 1500 cases with benign kidney diseases can be minimized by the proper referral, arranging stone camps, improving of infra-structure at taulka and district level.

41 Comparative study between the operative procedures of Laparoscopic Nephrectomy with open Nephrectomy in cases of Benign Kidney Diseases, outcome and complications: A single center experience. Dr Ghulam Murtaza Hiraj (Sharif MCH) – Short Abstract.

Renal Transplantation

42 Outcomes of laparoscopic donor nephrectomy in presence of double renal arteries

Rehan Mohsin, Gauhar Sultan, Asad Shahzad Hasan, Mudassir Hussain, Harris Qureshi, Riaz H Laghari, Pardeep Kumar, Altaf Hashmi, Adib Rizvi
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Introduction

Laparoscopic donor nephrectomy has gained widespread acceptance, since its description in 1995. Difficult vascular anatomy, such as two renal arteries, can pose a challenge to the surgeon. The multiplicity of donor artery may have an adverse effect, not only on safety of donor but also on graft outcomes.

Materials and methods

Data was retrieved retrospectively. Patients with single and double renal artery who underwent laparoscopic donor nephrectomy were evaluated for laterality of side, operation time, ischemia time and hospital stay.

Results

A total of 110 donors were included in the study, 55 with single and 55 with double renal arteries. The male to female ratio was 3:1. Majority of kidneys were left sided. Maximum warm ischemia time recorded was 6 min 25 sec in double artery group. There was no conversion to open surgery in double renal artery donors. There was no primary graft failure. Mean warm ischemia time was higher in double artery group, however serum creatinine of recipients at 6 months was comparable to single renal artery grafts.

Conclusion

Outcomes of laparoscopic donor nephrectomy with double renal artery is comparable to laparoscopic donor nephrectomy with single renal artery in experienced surgical hands.

43 RENAL TRANSPLANTATION IN REMOTE AREAS OF PAKISTAN

Salman Arshad, Shafqat Ali Tabassum, Mumtaz Rasool, Iftikhar Ahmad

It is estimated that the annual incidence of ESRD is more than 100 per million population in Pakistan. Lack of a central registry system makes this epidemiological assessment difficult and the disease burden is under estimated specially in the remote areas of Pakistan like Southern Punjab. Kidney Center, BVH Bahawalpur a tertiary care government hospital caters a large population area including more than 20 districts. It was inaugurated in July 2018 with basic Urology, Nephrology and Dialysis services but the transplantation was started in December 2018, with the main focus on providing all the transplant facilities under one roof and free of cost, to increase legal transplants and cut down transplant tourism in Pakistan. Emphasizing the importance of transplant center in Government Sector, we have successfully done 25 live related Kidney transplants within a span of one year but we faced many difficulties like shortage of trained man power, limited resources, restricted government funding, weak community support, costly dialysis and immunosuppressive drugs, logistic and financial issue in timely follow up of patients. It is necessary to make arrangements especially in Government Sector to make this facility available for a common man free of cost with dignity.

44 Kidney transplant in patients with prosthetic cardiac valves on warfarin therapy, Our experience.

Hafiz shahzad Ashraf, Umair afzal, M. Nasir Ibrahim, Nadir Hussain, Obaidu rrehman,

Objective: Warfarin anticoagulation therapy in prosthetic valves presents a major risk for the outcome of renal transplant. After thorough review of the current literature, we were unable to find the prognosis of transplant patients who were on warfarin therapy preoperatively. We share our experience of two such cases.

In the 1st case, the patient 42/M presented for kidney transplant due to ESRD secondary to bilateral small kidneys on maintenance dialysis. Patient had history of dual valve replacement due to rheumatic heart disease about 6 years back.. Preoperative optimization of coagulation profile was done by bridging therapy. After the successful LRRT surgical procedure, the patient was kept in intensive care with close monitoring of the coagulation profile and routine post-operative care. Clexane was started on 2nd POD warfarin was started. Patient developed hematoma during ICU stay and it was managed conservatively. Warfarin was started on 16th POD. Patient was discharged in stable condition. At the time of discharge, the patient was clinically asymptomatic with normal renal and INR levels maintained between 2.0 to 3.0. On follow-up visits, patient was maintaining his creatinine levels at 0.7 and serial radiologic studies showed resolving hematoma that was gradually decreasing in size.

The second case, 39/M with ESRD on maintenance hemodialysis. Patient had mitral valve replacement 14 years back and was on warfarin therapy with INR levels maintained between 2.0 to 3.0. For the procedure, patient was shifted to bridging therapy preoperatively after discussion in multi department meeting (MDM). The surgical procedure LRRT was uneventful. After the procedure, the patient was kept in intensive care with close monitoring of the coagulation profile and routine post-operative care. Clexane was started on 3rd POD. Patient recovered uneventfully and warfarin was started again. Patient was discharged in stable condition with normal creatinine levels and INR of 2.5. Double J stent was removed 4 weeks later and patient is on regular follow-up and clinically asymptomatic

Conclusion: Patients with prosthetic valves pose a high risk for any surgery. However, even major surgeries as Renal Transplant can be done safely by preoperative optimization, bridging anticoagulation, a meticulous surgical technique and intensive post-operative care including monitoring of the patient clinical condition and coagulation profile. Postoperative hematoma poses a major challenge and it was managed conservatively in this case.

45 Cephalic Vein Turn Down- A Durable Solution to a Nagging Problem in Angioaccess for Dialysis Patients-SIUT Experience.

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Introduction Cephalic vein is particularly vulnerable to stenosis in its arching portion near the junction with the axillary vein. Non treatment can result in inadequate dialysis and burst AVF. There are multiple treatment modalities ranging from endovascular to open surgery suggested for the treatment of this cephalic arch stenosis. Cephalic vein turn down offers a durable solution to this very frequently encountered problem. While there is more inclination towards lesser invasive procedures, more data in favor of cephalic vein turn down might be helpful in defining future treatment strategies.

Methodology: We included 13 patients with brachiocephalic arterio-venous fistulas who presented in OPD from January 2017 to January 2019 with complaint of prolonged bleeding post haemodialysis needle removal, inadequate dialysis despite good flow in AVF or large dilated AVF vein. These patients were subjected to a fistulogram to identify the abnormality and rule out any central venous obstruction. Venous return pressures were also monitored during HDX. The procedure was performed under general anesthesia. Patency at six months, 12 months and 24 months was ascertained using venous pressures as measure of return of proximal stenosis and symptoms of prolonged bleeding and inadequate dialysis.

Results: Primary patency at 6 and 12 months was 100 percent with none developing any stenosis proximally. Venous pressures in all were below 100mmHg with flow of 300 ml per minute in dialysis circuit. One patient had to be re-operated because of tight stenosis proximal to the anastomotic site.

Conclusion: Cephalic vein turn down offers a durable solution to patients with brachiocephalic AVFs on prolonged dialysis

46 Femoral Vein Bridge Graft AVF-Alternate to PTFE grafts for Angioaccess Patients
Bux Ali, Bilal Masood, Abdul Khalique, Ziad Sophie, Altaf Hashmi, Adib Rizvi
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Introduction

Fistulas in the lower limb pose social issue beside being more prone to infection and other haemodynamic complications including high flow volumes. Therefore upper limb AVF's are a better option for the patients both haemodynamically and socially as well. In patients with either already consumed or poor caliber cephalic and basilic veins and patent central veins, upper limb haemodialysis access can also be gained by an arteriovenous bridge graft using either poly tetra fluoro ethylene (PTFE) grafts or autologous grafts of femoral vein. PTFE grafts being foreign body to the patient are more prone to infection and frequently get thrombosed, in comparison using a native vein of the patients, avoids issues of infection and thrombosis encountered frequently with PTFE grafts. At SIUT We have evaluated femoral vein translocation AVF's with respect to primary and secondary patency in our patients and compare its efficacy with that of PTFE graft's in international data in order to establish its place as a viable option for haemodialysis access.

Material and Method

It is a retrospective analysis of the surgeries done from Jan 2017 to Dec 2017 and were followed up in our clinic. 10 patients were selected as subjects after ascertaining with physical examination and ultrasound analysis that veins in the upper limb are not adequate for AVF formation or are already consumed. Upper limb venograms were done to confirm central vein patency and femoral vein mapping was done to measure there size with atleast 3mm of size as cut off. The age of patients, BMI and gender distribution were documented. Primary patency and secondary patency is calculated at 6 and 12 months period. Frequency of the complications occurred in the post op period along with mean hospital stay is also documented.

Results

Mean age of our patients was 45 ± 2.5 years. BMI was 23 ± 3.7 kg/m², Primary patency at 6 months was 100% and 12 months was 90%. Secondary patency at 12 months was 90% with one AVF getting stenosed throughout its length and was not salvaged. One AVF had excessive flow in it so a choke procedure was done to limit the flow. Three patients developed seroma at the operative site in leg and was conservatively managed. One patients developed central venous stenosis after the operation, for which a venoplasty was performed

Conclusion

Native vein AVBG is a durable alternative to PTFE grafts. Longer term follow up will further strengthen the issue.

47 Renal Transplantation with Bilateral Triple Renal Arteries: M. Nasir Ibrahim, Ahmad ayyaz, Umair afzal, Nadir Hussain, Hafiz shahzad Ashraf

Case summary

Introduction: Despite many efforts to increase organ procurement, the persistent shortage of cadaveric kidneys is one of the factors that justify the use of living donors. New immunosuppressive protocols together with the refinement of surgical techniques now allow us to use living donors such with bilateral multiple renal arteries, all of whom would have been unsuitable as donors in the past.

Mr. ABC S/O XYZ 28 yrs old male , student , single and resident of Tipa Mandukhel Khipori KPK was admitted in our ward on 21-08-2019 for renal transplant. He was known case of ESRD and HTN for last one and half years and the cause of renal failure could not be determined as he had bilateral shrunken kidneys at diagnosis and renal biopsy was not done. He was having twice weekly adequate hemodialysis for last one and half year via left brachiocephalic AV Fistula. His mother, only ABO compatible donor, was potential donor. Her Renal CT angiopyelogram revealed Right kidney size of 11×5.1cm and that of left 11×5.2cm. Both renal arteries were dividing at renal hilum, two accessory renal arteries seen on each side supplying upper and lower poles of both kidneys, both renal veins were patent, left being pre aortic. Both kidneys had good uptake and excretion of contrast, no calculus, mass or hydronephrosis seen on either side. Urinary bladder was normal. Left donor nephrectomy was planned. There was single renal vein , three renal arteries , 2 hilar , 1 lower pole artery, single ureter was present . Right Gibson incision was made in recipient. There was no atherosclerosis of iliac vessels, no fibrosis and bladder was of adequate capacity. A single stump was made of both hilar arteries by pair of pants technique and end to end anastomosis was done with internal iliac artery and end to side anastomosis was made between lower pole artery and external iliac artery. End to side renal vein anastomosis was done with external iliac vein. Ureter reimplanted at dome of urinary bladder over DJ Stent by modified lich gregoir technique. A drain was placed in Right iliac fossa. Transplantation went uneventful and patient discharged in stable condition with adequate urine output and creatinine of 1.0mg/dl. Antiplatelets were added in along with other drugs.. Color Doppler ultrasound showed Transplanted Kidney of size 12.2 × 4.2cm in RIF with good cortical blush , lower pole hilar anastomotic artery showed RI 0.63, upper hilar anastomotic artery showed RI 0.68 , middle hilar anastomotic artery shows RI0.65. Renal vein was patent and no perinephric collection noted.

Conclusion: At moment there is organ shortage in Pakistan on account of non establishment of cadaveric organ transplantation and social, ethical, religious and financial issues. Transplantation of multiple renal arteries can be performed safely at specialized transplant centres instead of rejecting the donors.

Retroperitoneum and Testicular Cancers

48 Retroperitoneal Lymph Node Dissection in Testicular tumors: SIUT Experience

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Introduction

Testicular germ cell tumor is the most common tumor in males between the ages of 20 and 44. They have excellent 5-year survival rates due to multimodal treatment strategy of chemotherapy, radiotherapy and surgery. Platinum based chemotherapy and re-staging of NSGCT are steps to treat metastatic NSGCT. If there is a recurrent mass or residual mass after chemotherapy in retroperitoneal place, RPLND has its role here.

Retroperitoneal lymph node dissection (RPLND) has been utilized for the treatment of GCT since 1900s. The surgery alone reduces the probability of requiring subsequent chemotherapy by 50% and excludes the need of further extensive radiological investigations. RPLND is mostly recommended as a treatment option in NSGCT.

Materials and methods

A retrospective data of 27 patients was collected from 2017 to 2019 who underwent retroperitoneal lymph dissection during the period. Data was analyzed through SPSS and included variables age, operative time, blood loss, hospital stay, site of tumour and pathological analysis.

Results

The mean age of patients was 26.3 ± 6.8 years and 67% (18) had left sided testicular mass. The pathological analysis was seminoma, non-seminoma and mixed in 26%, 44% and 30% respectively on orchiectomy specimen. Majority of patients received BEP (75%) and EP (25%). Mean operating time of surgery was 176.8 ± 49.1 mins, and mean blood loss was 1.5 ± 0.8 units. Hospital stay was 5.6 ± 3.5 days after surgery. Majority of removed specimen had negative margins 67%, while 29% had microscopic positive margins and 4% had macroscopic positive margins. Pathological analysis of resected specimen showed mature teratoma in 81% and non-viable tumour in 19%. Complications were recorded in 26% patients and majority were Clavindindo grade 1. Recurrence rate at one year was 17%.

Conclusion

Retroperitoneal lymph node dissection has important role in management of metastatic germ cell tumour. Although the procedure is morbid but it can help achieve high recurrence free rate of 81% at one year.

49 Laparoscopic Management of Undescended Testes in Adults

Suhail ahmed , Shahzad ali

Objective: Cryptorchidism affects 1% of male births. Most of the patients with undescended testis are treated in early childhood on identification in the developed world but in the developing countries still number of the patients are missed and usually present late to clinics. We are sharing our experience of managing the adult patients with undescended testis with laparoscopy

Patients and Methods: This was retrospective study conducted at department of urology Jinnah postgraduate medical centre from June 2014 to December 2018. Total 37 patients were included in this study who presented with undescended testis. All patients had pre-operative ultrasound whose testis were not palpable in the scrotum and inguinal canal. All patients underwent diagnostic laparoscopy for locating exact site of testis. laparoscopic assisted orchidopexy or orchidectomy was performed in patients who had intra-abdominal testis. For obtaining sufficient length, testicular vessels and vas deference were sufficiently mobilized and a new inguinal ring was created in posterior wall of the inguinal canal medial to epigastric vessels through small incision.

Results: Out of 37 patients, 15 patients (40.5%) had bilateral, 9 patients (24.3%) with left undescended testis and 13 patients (35.13%) had right undescended testis. In 17 patients (48.57%) ultrasound localized the location of the testis while in 32 patients (86.4%) laparoscopy had confirmed the exact location. On laparoscopy 32 (86.48%) patients had intra-abdominal testis while in 3 patients (8.1%) vas deference and vessels were entering into canal while in remaining two patients (5.4%) there was vanishing testis. Laparoscopic orchietomy performed in the 10 cases (27.02%) while in rest 27 patients (72.97%) laparoscopic assisted orchidopexy was done. One patient had bladder injury while mobilizing the testis.

Conclusion: Laparoscopic-assisted single-stage orchidopexy is a safe and successful procedure for intraabdominal testis in adults over the conventional open surgery with good outcome. tum without tension.

Renal Cancer

50 Audit of nephron sparing Surgery: Experience of a tertiary care urology institute in Pakistan .
Adnan Ali , DrFaraan Kiani, Dr Muhammad Rafique Zafar, Dr Badar Murtaza (AFIU)

Objective: To present audit of nephron sparing surgery performed at AFIU in year 2018, 2019 .

Place and Duration of Study: Armed Forces Institute of Urology (AFIU), Rawalpindi from 1st January 2018 to 31st December 2019.

Material and Methods: The study was conducted at AFIU, Rawalpindi from 1st January 2018 to 30th Nov 2019. All of the consecutive 71 patients who underwent partial nephrectomies were included. Partial nephrectomy was performed in all the cases under general anesthesia. Intravenous antibiotics were given during admission period, i.e. 2-3 days. The complications were classified according to modified Clavien system. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) version 6

Results: Forty five (63%) patients were males and twenty six (37%) were females. Their ages ranged from 18 years to 65 years with mean age 41.5 years. Partial nephrectomy was performed on right side in 50 (70.4%) cases while 21 (29.57%) underwent partial nephrectomy on left side. Overall complication rate was 19.25%. Grade 1 complications in 6.7%, grade 2 in 6.8%, grade 3a in 2.8% and grade 4a complications in 2.9% were seen.

Conclusion: partial nephrectomy is associated with low incidence complications when performed by experienced surgeons.

51 The Impact of Radiological and Pathological Size of Renal Cell Carcinoma on Stage of Disease.
Mudassir Hussain, Rehan Mohsin, Gauhar Sultan, Asad Shahzad Hasan, Altaf Hashmi, Adib Rizvi
Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction

Renal cell carcinoma is the most common tumour of kidneys and surgery in the form of Radical nephrectomy has been the only curative option for organ confined disease. However, with advent modern surgical practices, the potential options for treatment have changed to include nephron sparing partial nephrectomy and local ablative techniques, so as to preserve renal mass and prevent long term chronic renal failure. This study may help clinicians to take appropriate decisions regarding possible nephron sparing surgery especially in T1b tumour (> 4 cm to ≤ 7 cm)

Objective:

To estimate the frequency of change in stage of renal cell carcinoma based on discrepancy in preoperative radiological and postoperative pathological size.

Materials and methods

A total of 81 cases with renal cell carcinoma, measured equal to or less than 10 cm on preoperative computerized tomography scan were included in this study. After surgical resection of renal mass, the specimens were sent to pathology department. The preoperative radiological size was used to categorize disease into preoperative rT1a, rT1b or rT2 disease (TNM staging of RCC 2009). The postoperative pathological size was used to categorize disease into postoperative pT1a, pT1b or pT2 (TNM staging of RCC 2010) disease.

Results

The average age of the patient was 46.33 ± 8.75 years. Out of 81 cases, 32(39.51%) changed stages while 49(60.49%) did not change their stages.

Conclusion

There was a small overestimation (1 mm) of pathological size by CT overall, but this is of uncertain clinical significance. For some patients, the difference leads to a discrepancy between clinical and pathological staging, which may have implications for pre-operative patient counseling regarding prognosis and choice of treatment strategy.

52 Minimal Invasive Approach for Managing Renal Mass

Zohaib zafar, saeed ahmed, Muhammad mansoor

OBJECTIVE:- To determine the outcome of laparoscopic radical nephrectomy in patients with renal mass.

Study Design:- Descriptive Case series.

Place and duration of Study: Department of Urology and Transplantation, Jinnah Postgraduate Medical Center Karachi from January 2019 to July 2019.

Material Methods:- This was a retrospective study which included five patients who underwent laparoscopic radical nephrectomy for renal mass. Demographic data of all patients was recorded with peri-operative and post-operative outcomes. The patients were followed up for three to twelve months after procedure.

Results:- Total five adult patients were included in this study who underwent radical nephrectomy with mean age of 61.33 years. Two patients were excluded from the study as they were converted to open. Out of remaining three patients, one patient had right renal mass while two had left renal masses. Two patients had renal mass of less than 7 cm while one patients had mass greater than 7cm. Total mean operative time was 145 minutes and total mean blood loss was 180 ml. Drain was placed in each patient. Postoperative recovery was uneventful. Patients were discharged after 2 days after removing the drain. Two patients had clear cell carcinoma while one had angiomyolipoma.

Conclusion: - Laparoscopic Radical Nephrectomy is the emerging approach for the renal mass with good outcome and cost effective provided that there is enough expertise for performing the procedure.

Key Words:-Renal Mass, Radical Nephrectomy, Laparoscopic, open

53 A Case report of Angiomyxoid tumour in the renal peripelvic tissue presented with features of pelvi-ureteric junction obstruction in young adult In Liaquat National Hosptial and medical college Karachi.

Sana khurshid

A case of angiomyxoid tumour in the renal peripelvic soft tissue of a 21 year old male is reported. The encapsulated tumour, measuring 8.5x6.3x1 cm was solid and firm. The cut surface reveals grayis brown fibro-fatty and gelatinous and glistening tumour. Histologically the tumour was composed of bland spindle shaped cells within myxoid background, multiple scattered blood vessels seen with hyalinised wall. There was no significant necrosis and mitosis seen. The tumour cells strongly stained for CD34. These findings strongly resemble those associated with angiomyxoma in the vulva and perineum. Mesenchymal tumours of the renal peripelvic tissue are uncommon. Here , we report a myxoid tumour with a prominent vascular component, histologically and immunohistochemically indistinguishable from angiomyxoma in the female vulva and perineum.

54 LARGEST RENAL TUMOR REMOVED: SAFDAR SHAH, NISHCHAL GAUTAM

PRESENTATION OF CASE:

A 50 year old male presented with history of Pain in the left flank since 6 months, gradual in onset, mild to moderate in intensity, there was no radiation or aggravating factors of the pain. Pain was relieved on taking oral or at times injectable pain killers. There was no relation of the pain with intake of food or water or with micturition. Patient also gives history of hematuria on/off since last 6 months It was painless , mixed , intermittent , sudden in onset , associated with passage of vermiform(thread like) clots. Patient does not work in rubber, paint or petroleum industry. There is no H/O use of anticoagulants medications. Patient has normal appetite, has a normal sleeping pattern and does not give any history of significant weight loss. Patient also gives history of gradual increase in the size of his abdomen since last 6 months , patient casually noticed lump in his left flank region which was small in size which gradually increased to attain the present size. It was associated with pain in the flank and hematuria. No history of fever or other lumps in the body. Patient had no surgical history. Abdomen was distended, umbilicus was central and inverted, flanks were full. On palpation abdomen was soft Non-tender and bowel sounds were audible. A mass about 15X15 cms was palpable in the left lumbar region extending up to the umbilicus in the midline, and left iliac fossa inferiorly. The upper border of the mass was not palpable. It had a smooth surface. It was ballotable, bimanually palpable & mobile.

DISCUSSION:

A combined Urological team approach was chosen in view of the CT scans images of huge renal mass and collateral vessels A large heterogeneous, contrast enhancing lesion about 18X18 cm arising from the middle and lower pole of the kidney replacing whole of the kidney. Perinephric fat infiltration present. There is no evidence of invasion of the renal vein or the IVC. Bowels were displaced as the giant mass reached into his pelvis. On DTPA Renal scan GFR of left kidney was 10.9 ml/min and right was 41.7 ml/min. CT Chest was unremarkable

55 Familial Renal cell carcinoma with Paraganglioma

Sana Hussain, Salman Jamil, Imran Khan Jalbani , Sehrish Batool

Case Report: A 19 year old male with no co-morbid presented with intermittent left flank pain for 1 year. He had no history of hematuria or passage of stone. Family history was unremarkable for stone or cancer. On examination, there was large non-tender mass at upper abdomen extending from left hypochondrium to umbilicus and was bimanually palpable. CT abdomen showed large left renal lesion with renal vein thrombosis. There was also a separate enhancing lesion in the aortocaval groove. Case was discussed in tumor board and decided to have left renal biopsy which showed papillary and tubulocystic architecture and differential was papillary RCC or tubulocystic carcinoma. He underwent left radical nephrectomy with lymph node dissection and right aortocaval mass excision. Histopathology showed papillary RCC with prominent hobnailing and mucinous, microcystic tubular pattern suspicious of fumarate hydrate deficient RCC (pT2b,N1). Aortocaval mass was identified as paraganglioma.

Discussion/Conclusion:

Renal cell cancer has many rare varieties of histopathological subtypes and found in association with many syndromes. One such syndrome is association of renal cell cancer with paraganglioma/pheochromocytoma (RAPTAS). Very limited data available for long term follow up of these patients and no specific adjuvant therapy available for these rare subtypes.

Female Urology

56 IATROGENIC INJURY TO URINARY TRACT: AN INITIAL EXPERIENCE IN THE MANAGEMENT, DURING GYNECOLOGICAL AND OBSTETRIC PROCEDURES. NAVEED SOOMRO (LUMHS).

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ABSTRACT

OBJECTIVE:To assess the outcome of urological iatrogenic injuries during gynecological and obstetrical procedures.

MATERIAL AND METHODS:We managed 20 patients with iatrogenic injuries to urinary tract from January to September 2019. Age ranges from 20 to 50 years. Patients selected from elective and emergency procedures which includes Cesarean sections and hysterectomies due to placenta previa, placenta accreta, placental abruption and uterine fibroid. Out of 20 patients, 15 patients had bladder perforation, 2 patients had complete transection of distal ureter and 3 patients had lower abdominal pain and mild abdominal distention post operatively..

RESULTS: All patients of bladder perforation were managed by primary repair. 10 remained successful as they were followed. 5 patients lost to follow up. Both patients of ureteric transection managed with primary repair (ureteroneocystostomy) remained successful on follow up. 3 patients, who were having pain and abdominal distention post operatively, were managed conservatively by catheterization.

CONCLUSION: Iatrogenic injuries can be catastrophic if not recognized promptly, early recognition is a key to success. However, in case of failure , certain procedures can be required and longer time of follow up is needed.

KEY WORDS: Iatrogenic, obstetric procedures, ureteroneocystostomy

ABSTRACT:

INTRODUCTION: Vesicovaginal fistula is an abnormal communication between urinary bladder and vagina. It is a major social problem. It is common in developing countries. Common causes include obstructed labor, iatrogenic injury, inflammation, malignancy and radiation. Spontaneous closure is also reported although it is mostly managed surgically. Vaginal approach is preferred due to easy access and less morbidity. Other methods include transabdominal, abdominoperineal, laparoscopic and robotic method. **METHODOLOGY:** Retrospective study was conducted at Department of Urology, Faisalabad Medical University, Faisalabad with patients from January 2016 to December 2018. All female patients presenting with incontinence suggestive of VVF were included and patients with multiple fistulae, fistula involving ureteric orifice, fistula more than 3 cm and high lying fistula were excluded from the study. **RESULTS:** 42 patients were included in the study between 16 years to 55 years age. 19 (45.23%) patients presented with incontinence after prolonged labor. VVF after hysterectomy in 13 (30.95%) cases. 9 (21.42%) cases presented after lower segment cesarean section. VVF developed in 01 (2.38%) patients after cystocele surgery. On cystoscopic examination, 59.53% patients had supratrigonal VVF whereas 40.47% patients had infratrigonal VVF. 35 patients (83.33%) presented without history of previous VVF repair and 07 patients (16.66%) had history of VVF repair. All patients were operated by vaginal approach and foley catheter was kept for 3 weeks. Operation was totally successful in 36 (85.71%) patients. We faced failure in 06 (14.28%) cases. Minor complications were observed in certain patients which were not considered as failure. LUTS due to foley catheter were seen in 13 (30.95%) cases which were managed by α -blockers and anti-muscarinics. Post operative hematuria was noted in 4 (9.52%) patients which was manageable. Stress urinary incontinence was found in 5 (11.9%) cases and 3 (7.14%) patients presented with behavior like over active bladder. Post-operative UTI was seen in 6 (14.28%) cases. **CONCLUSION:** Vesicovaginal fistula can be managed safely and successfully by vaginal route in most of the cases. It has comparable results with abdominal approach with less morbidity. However, it has its limitations as well.

58 Demographics of patients with vesicovaginal fistula and its knowledge in local population. Dr Aziz Abdullah (LNH)

Demographics of patients with vesicovaginal fistula and its knowledge in local population

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Objective: To assess the awareness and find out the most familiar cause of vesicovaginal fistula, factors responsible for delay in seeking treatment and the results of surgical treatment in our setup.

Methodology: This cross sectional study was carried in Department of Urology, Liaquat National Hospital, Karachi, from August 10, 2011 to August 20, 2017 using non probability convenient sampling technique. After informed consent, 150 female patients presented with sign and symptoms of vesicovaginal fistula were included in the study. Data were analyzed using SPSS version 20.

Results: Out of 150 patients, 67(44.56%) were of less than 20 years while 43(28.66%) belonged to 20-30 age group; 91(60.66%) were illiterate. Obstructed labor was the commonest cause of

vesicovaginal fistula observed in 106(70.66%) of patients followed by abdominal hysterectomy, LSCS, forcep delivery and vaginal hysterectomy in 23(15.33%), 11(7.33%), 7(4.66%) and 3(2.0%) cases, respectively.

Conclusion: Commonest cause of vesicovaginal fistula was obstructed labor. Majority of patients were unaware about the curable nature of problem and the place where these types of patients are managed. Success rate of surgery was high in our setup. There is need to prevent the development of fistula by improving the awareness of the problem. (Rawal Med J 201;44:577-580).

Keywords: Vesicovaginal fistula, obstructed labor, hysterectomy.

Reconstructive Urology

59 Retrospective study of Recto Urethral Fistula repair with interposition of Gracilis Flap at tertiary care hospital

Urology department, Liaquat National Hospital, Karachi

Dr. Muhammad Owais, Prof. Aziz Abdullah, Dr. Syed Farhan Ahmed, Dr. Muhammad Rashid, Dr. Waqas Ahmed

Objective: The aim of our study was to assess the efficacy and experience of gracilis muscle interposition for complex rectourethral fistula (RUF).

Study design: Study was conducted as inpatients at Department of Urology, Liaquat National Hospital, Karachi.

Duration of study: From Jan 2016 to March 2018.

Background data: Rectourethral fistula is a rare but challenging outcome of firearm injuries/blast injuries. A variety of procedures have been described to treat this condition, none of which has gained acceptance as the procedure of choice. The aim of this study was to review the authors' experience with gracilis muscle interposition in the treatment of rectourethral fistula.

Subject & methods: All in-patients who fulfilled the inclusion criteria in the Department of Urology, Liaquat National Hospital, Karachi were included in the study. After taking informed written consent, history, clinical examination and proper investigation; patients were planned for rectourethral fistula repair with interposition of gracilis flap. A retrospective chart review of all patients who underwent gracilis muscle interposition for rectourethral fistula was made, and follow-up was established on OPD basis. Successful repair was defined as absence of a fistula after reversal of fecal and urinary diversions.

Results: A total of 11 patients were included in our study. All were males and had FAI (Fire Arm Injuries). All FAI cases had Exploratory Laparotomy + Bladder repair. 2 patients had Diversion Ileostomy. Initial presentation was urine per rectum. All cases were confirmed by cystourethrogram. Cystoscopy was done in all cases before definitive surgery. RUF repair with interposition of Gracilis flap was performed. 8 out of 11 patients' surgeries went uneventful. 2 had infected wound which required secondary suturing. 1 had urinary leakage from wound which required redo surgery.

Conclusion: Gracilis muscle interposition is an effective surgical treatment for rectourethral fistula after FAI. It is associated with low morbidity and a high success rate.

Key Words: Rectourethral fistula, Gracilis Flap, Firearm injuries

60 To determine the outcome of Robotic Assisted Pyeloplasty-SIUT Experience

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Introduction & Objective

The traditional gold standard for the management of ureteropelvic junction obstruction (UPJO) used to be open pyeloplasty but in the minimally invasive era, novel approaches have become apparent alternatives to UPJO management. In addition, in recent years, laparoscopic/ robotic assisted pyeloplasty has been moving rapidly toward replacing open surgery as the gold standard in the treatment of UPJO. We aimed to assess the feasibility and outcomes of ureteropelvic junction obstruction cases submitted to robotic-assisted pyeloplasty.

Methods

It is a prospective study which was done from the time period between June 2017 to March 2018. Total were included in this study. Case records of all the patients were evaluated for demographic data and symptomatology. All patients were underwent diagnostic investigation like x-ray IVP/CT scan and Mag 3 scan. Operative findings were recorded. Duration of surgery and hospital stay was also recorded. All patients are compared with open group.

Results

Total 51 cases of Ureteropelvic junction obstruction were included in this study. All the patients had robotic assisted pyeloplasty via trans peritoneal route. Male to female ratio was 1.2:1. Age ranges from 14 years to 43 years. Left site UPJO is predominant and one patient had Bilateral UPJO. Eight patients are associated with stones two with VUJO. In this study 37 patients have found to have aberrant crossing vessel during surgery. In 45 patients we placed double j stent. Regarding hospital stay majority of patients were discharged within 48 to 72 hours. All the results were compared with open procedure.

Conclusions

Robotic-assisted pyeloplasty is the standard of care nowadays. It reduces the convalescence period and hospital stay. It also gives the chance for the patients to take part in routine activities and to join their jobs minimizing the financial loss which may be more evident in open procedure.

61 Is DVIU Necessary in the Era of Urethroplasty

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Introduction Direct visual internal urethrotomy (DVIU) followed by intermittent self-dilatation (ISD) is the most commonly performed intervention for urethral stricture disease. Excision and primary anastomotic (EPA) urethroplasty remains the gold standard definitive treatment for short urethral stricture disease.

Objectives To compare outcomes of direct vision internal urethrotomy versus EPA urethroplasty in short bulbar urethral stricture

Materials and methods

It was a prospective case control study done between January 2019 to October 2019 at SIUT. Patients were divided in two groups, one group underwent Direct visual internal urethrotomy (DVIU) and another group underwent excision and primary anastomosis (EPA). Total 30 patients, 15 in each group were followed for six months, with IPSS scoring, quality of life, IIEF scoring, and complication according to Clavien-Dindo classification.

Results Patient in DVIU group had initial good UFM (20 ± 6), most of the patient (90%) in DVIU group followed at 6 months are not happy and had Clavien grade 3 complications and needs further surgical management but in EPA urethroplasty group quality of life improved, and 95% patient has UFM 25 ± 10 . They don't require further management

Conclusion We conclude that we should do definitive procedure for primary bulbar urethral stricture and only urethroplasty is best option there, so in the era of urethroplasty. DVIU has no place in primary bulbar stricture and it is option for unfit patient in primary setting..

62 COMPARISON OF INTERNAL OPTICAL URETHROTOMY WITH AND WITHOUT INTRA-LESIONAL TRIAMCINOLONE INJECTION IN THE MANAGEMENT OF URETHRAL STRICTURE

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ABSTRACT

Background

Urethral Stricture is referred to as a narrowing in the lumen of urethra secondary to an injury or an infection of the urinary tract and urethritis. Any insult to the urothelium or the overlying corpus spongiosum results in the formation of a scar or fibrous tissue which causes the narrowing. Triamcinolone is a steroidal anti-inflammatory agent which acts by reducing the formation of a scar after an injury which is made use of in the treatment of strictures after internal optical urethrotomy.

Objective

To compare the recurrence of stricture after Internal Optical Urethrotomy with and without intra-lesional steroid/triamcinolone injection in patients presenting with urethral stricture in terms of Uroflometry and Subjective symptoms improvement.

Material & Methods

This comparative study was conducted in the Department of Urology, Lahore General Hospital for 12 months. Non probability, purposive sampling was applied. After a written informed consent and the necessary investigations, patients were admitted and divided randomly into two groups. The data was collected and entered in a preformed proforma and analyzed on SPSS version 23.

Results

The mean age of the patients was 37.93 ± 17.09 years, the mean duration of stricture of the patients was 5.18 ± 0.78 months and the mean stricture size was 1.027 ± 0.253 cm. The recurrence occurred in a total of 17 (42.5%) patients out of which 13 (32.5%) patients were from the IOU alone group while 4 (10%) patients were from the triamcinolone group. Statistically significant difference was found between the recurrences in both groups i.e. p-value=0.004.

Conclusion

On the basis of our results, we can conclude that recurrence of urethral stricture is significantly reduced with the use of triamcinolone intra-lesionally after Internal Optical Urethrotomy and can be used as a safe adjunct to IOU.

Keywords:

Urethral Stricture, Triamcinolone, Recurrence

63 POSTERIOR URETHEROPLASTY THE WAY WE DO IT.

Farooq panhyar, Arif

OBJECTIVE:- To determine the outcome of posterior urethoplasty in patients with posterior urethral stricture.

Study Design:- Descriptive Case series.

Place and duration of Study: Department of Urology and Transplantation, Jinnah Postgraduate Medical Center Karachi. From July 2016 to June 2019.

Material Methods:- in this single center study total 49 patients were included who underwent posterior urethoplasty for posterior urethral stricture. Suprapubic catheterization was done in all patients prior the posterior urethoplasty. Data of all patients was recorded and analyzed with the mean follow up of at least 6 months after procedure using SPSS.23 version

Results:

Total 49 adult patients were included in this study with mean age of 26.38 ± 4.54 years (15-47 years). all were followed for one year (6-12 months). Out of 49 patients blunt pelvic trauma with pelvic fracture was present in 21 patients (42.85%), 13 patients (26.5%) had history of instrumentation and remaining 15 patients (30.6%) had traumatic catheterization. All patients were initially tried. On follow up for one year 5 patients (10.2%) developed post urethoplasty stricture. Out of 5 patients, 4 were treated with one time DVIU while 1 patients needed redo urethoplasty. Over all 44 patients (89.79%) were successfully treated who didn't need any procedure.

Conclusion: - Posterior urethoplasty is a procedure of choice for patients with posterior urethral stricture with good results even in patients of pelvic trauma with fracture.

Key Words:- posterior urethral stricture, Reterograde and antigradeurethrogram, Direct vision internal urethrotomy, Posterior Urethoplasty

64 To compare the mean peak flow rate of holmium laser versus cold knife among patients undergoing direct visual internal urethrotomy. Dr Muhammad Ibrahim (LNH) – Short Abstract.

65 Does Retrograde Urethrogram Required in Post Urethroplasty, to Access the Success in the Era of Uroflowmetry (UFM)

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Introduction:

Male urethral stricture has a high prevalence. It affects 0.6% of male adults at any time of life. Urethral stricture is a serious disorder and often times a complex surgical problem occurring predominately in males. It remains the major problem in our urologic practice. The aim of the study was to evaluate the outcome of urethroplasty in patients with urethral stricture.

Objective: To determine the outcome of urethroplasty in patients with urethral stricture.

Materials and Methods: This is a descriptive case series study of male patients who underwent surgery for urethral stricture at our service from Sept 2018 to Nov 2019. We analyzed the comorbidities, type, length and location of the stricture and the surgical treatment outcome after urethroplasty.

Patients were followed for 3 weeks and final outcome in terms of success will be assessed by Uroflowmetry. A maximum urine flow greater than 15 mL/s after 3 weeks treatment assessed by Uroflowmetry was considered as success. This information as well as demographics like age, history of DM, HTN

Results: A total of 100 patients after meeting the inclusion criteria were included in this study. Average age of the patients was recorded (ranging from 20 to 65) years, Average hospital length of the patients was recorded 1.96 ± 1.54 (ranging from 01 to 09), Average Qmax score of the patients was observed 30.50 ± 5.21 (ranging from 3 to 30.5), Average height of the patients was 5.77 ± 0.19 (ranging 5.40 to 6.30) Similarly average weight of the patients was 75.81 ± 5.97 , Finally Average BMI of the patients was recorded 24.97 ± 1.04 (ranging from 22.56 to 28.3) respectively. Out of 100 patients the distribution of smoking status, Diabetic mellitus and HTN was found and observed each number of cases i.e. Smoking was 15(16.3%), DM was 7(7.6%), HTN was 6(6.5%) respectively. Out of 100 patients the final outcome of the study i.e. overall, performing urethroplasty either by end-to-end anastomosis or by graft or flap placement has a success rate was found 78(78.0%) respectively.

Conclusion: Overall, performing urethroplasty either by end-to-end anastomosis or by graft or flap placement has a success rate of 79(79.1%) respectively. We propose that urethroplasty is ideal for urethral stricture with a maximum urine flow greater than 15 mL/s after treatment assessed on uroflowmetry will be considered as success.

66 Outcome of Everted End-To-End Urethroplasty in Traumatic Bulbar and Membranous Urethral Stricture

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ABSTRACT

Objective: Objective of this study is to determine the result of everted end to end urethroplasty in those patients who have traumatic bulbar and membranous urethral stricture.

Methods: The conducted place of this study was the department of Urology, Lahore General Hospital, Lahore for a duration of one year from 01-01-2012 to 31-12-2012. The included patients were 30 in number in the study. A single surgical team performed the procedure and Uroflowmetry and subjective evaluation was done on 2nd week, 1st month and 4th month and 12th month post operatively.

Results: 24.43±12.39 years were labeled as mean age of patients. The findings of retrograde and Antigrade Urethrogram were that the stricture at bulbo membranous junction was in 2 patients and the blind stricture at bulbar level was in 28 patients. 6.83±4.25 months were the average interval between the initial injury and urethroplasty. Mean length of the stricture was 1.83±0.63 cm after operation. On follow up of 2 weeks after operation, 15 patients were having subjective grading of 1 and 2 respectively (50 % in each). After 1 month of operation, grade 1 was reported in 23 patients (76.67%) and Grade-2 and Grade-3 subjective grading were present in 2 patients (6.67%) in each. 22 patients (73.34%) had 1 Uroflowmetry grading and 8 patients (26.67%) had 2 Uroflowmetry grade after 14 days of operation. After the follow up of 1 month, grade-1 was present in 19 patients (63.34%), Grade 2 was in 6 patients (20%) and Grade-3 Uroflowmetry was present in 2 patients (6.67%). Only 24 patients (80%) had presentation of grade-1 subjective improvement symptom and uroflowmetry at 4th month and 1 year after operation. The recurrence of stricture at follow up of 1 month was in 3 patients (10%) and at follow up of 4 month another 3 patients (10%) developed recurrent stricture in whom Internal Optical Urethrotomy (IOU) was subjected. Among the 6 patients (20%) of stricture recurrence, single IOU was enough for 2 patients (6.67%), 3 patients (10%) improved with 2 times IOU having 3 months interval and perineal urethroplasty was ultimately performed in 1 patient (3.34%) after repeated IOU. Failure was considered if IOU was repeated along with other intervention.

Conclusion: The treatment of choice for short traumatic bulbar and membranous urethral strictures is everted end-to-end urethroplasty having approximate 100% cure rates with minimum complications.

Adult hypospadias, experience in a tertiary care hospital

Dr Muhammad Mansoor (JPMC).

67 Objective: to evaluate the result and complication of hypospadias repair in adult population.

Study Design: Descriptive case series study

Patients and method: this study was conducted in urology department of JPMC from January 2014 to December 2018 with minimum 1 year follow up. All adult patients presented in our department with hypospadias were selected including those referred from paediatric surgical department with complication of previously performed surgeries. Complete history and examination performed. Operative procedures were planned on individual basis. Post operative complications were carefully noted and recorded. Patients were followed for a minimum of one year.

Results: Total 55 patients were included with mean age of 20.5 ± 9.2 years. Seventeen patients were successfully operated in single surgery (primary). Remaining 38 patients required more than one surgery (secondary). Total no of surgeries were 98 excluding surgery for complications. Out of 55 patients, distal hypospadias were 21 (38.1%), mid penile 09 (16.3%) while 25 patients (44.4%) with proximal hypospadias. Type of operative procedures were performed including TIP, chordee correction, Braca's stage 1 with BMG and skin grafting. Staged tube formation were the most common operative procedure. Early postoperative complications including suture dehiscence, urethrocuteaneous fistula, graft contracture, residual chordae and urethral stricture. Overall success rate was 85 %.

Conclusion: Repairing adult hypospadias is a challenging job especially after multiple previous surgeries. Staged tube formation is a better option than making long a single tube with good outcome.

Key words: urethra, adult hypospadias, operative procedures, postoperative complication

Prostate Cancer

68 Robotic Assisted Radical Prostatectomy in the Treatment of Localized Prostate Cancer: SIUT Experience

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Objective

To report early outcomes of Robotic assisted Radical Prostatectomy at a single centre of Pakistan.

Materials and methods

The data collected from June 2017 to September 2019. A total number of 12 cases performed. All patients were included and results were analyzed prospectively. The primary outcomes were prostate cancer-specific survival, urinary quality of life and sexual quality of life. Secondary outcomes were biochemical recurrence-free survival, overall survival, overall surgical complications, serious postoperative surgical complications, postoperative pain, hospital stay and blood transfusions.

Results

We included twelve patients in this study, with clinically localized prostate cancer. Outcome data were short-term (up to 3 months). The mean age is 59 ± 3.2 years. Mean PSA was 9.5 ± 1.5 . In risk stratification 83.3% were low risk and 17% were intermediate risk. The mean operative was 178 ± 12.5 mins. Blood transfusion was required in two patients (16.6%). Grade 4 surgical complication was recorded in one patient (re-exploration). Mean hospital stay was 4 ± 1.2 days. 66.6 % (8) patients were continent at 3 months while 58.3 % reported erectile dysfunction.

Conclusion

Short term results of Robotic assisted Radical Prostatectomy at our institute are encouraging. Long-term survival and functional outcomes are still awaited.

69 Diagnosis of Prostate Cancer- Role of Percent free PSA

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Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction:

Prostate cancer represents the most common form of cancer in adult males. Measurement of total serum prostate specific antigen (PSA) is widely used as a screening aid for early detection of prostate cancer. Regardless of the patient's age or prostate size, a cut off of 25% or less percent free PSA level is recommended for patients with PSA values between 4.1 and 10 ng/ml; this helps in detecting 95% of prostate cancers and in avoiding 20% of unnecessary biopsies. The higher the percent free PSA, the lower the probability of cancer. This study is designed to assess the magnitude of prostate cancer in patients with low percent free PSA. If the magnitude is found to be higher, then aggressive strategies and earliest treatment could lead to good progression.

Objective:

To determine the frequency of Prostate Cancer in men with low percent free PSA in the serum.

Materials and Methods:

It is a cross sectional study done in 8 months duration. A total of 149 patients with lower urinary tract symptoms were included in this study. All patients presented in Urology outpatient department (OPD). Selected patients were investigated by brief history, examination, total PSA level, free PSA level in serum and biopsy for the diagnosis of prostate cancer.

Results:

Most of the patients were 51 to 70 years of age. The average age of the patients was 60.15 ± 6.58 years (95%CI: 59.08 to 61.21). Average total PSA and duration of symptoms was 6.37 ± 1.52 and 7.12 ± 3.15 months. Frequency of prostate cancer in men with low percent free PSA in the serum to be found 128(85.91%) cases.

Conclusion:

Our study revealed that free prostate specific antigen has a significant role for the diagnosis of prostate cancer. This may lead to a reduction in number of men undergoing unnecessary prostate biopsy. Strategies could be made to screen such patient the earliest so prompt treatment could lead to good prognosis.

70 A Comparative Analysis of Sextant and Extended 5 – Region 13 Core Trans-rectal Ultrasound Guided Prostate Biopsy

Kamran Zaidi, Khizar Hayat, Fawad Nasar Ullah, Mumtaz Ahmed, Ahmed Salman Waris Sajjad Husain

Objective: To compare the diagnostic value of Extended 5 – Region (13 core) Trans-rectal Ultrasound guided Prostate Biopsy with Standard Sextant Biopsy. **Materials and Methods:** 60 patients underwent transrectal ultrasound guided biopsy of prostate. In addition to sextant biopsies, cores were taken from far lateral and mid regions of the gland. Pathological findings Principal, Mian Nawaz Sharif Medical College, Gujrat of the additional regions were compared to those of the sextant regions.

Results: We performed 5 – region trans-rectal ultrasound guided prostate biopsy of 60 patients. The reason for biopsy was abnormal digital rectal examination in 10 patients (16.7%), elevated PSA in 26 (43.3%) and combined abnormalities in 24 (40%). Out of these 60 cases, 37 (61.6%) came out to have prostate cancer. Of the cancer patients 5 (13.5% had an abnormal digital rectal examination, 14 (37.8%) had elevated PSA and 18 (48.6%) had both abnormalities. Among these 37 positive for carcinoma prostate cases, 22 patients were positive for prostate cancer in additional (zone 1, 3, 5)

as well as sextant regions (zone 2, 4), 12 patients had cancer only in additional region 1, 3 and 5 and 3 patients were positive for prostate cancer in sextant regions alone.

Conclusion: Five region technique of prostate biopsy is an efficient mean of significantly increasing the diagnostic yield of prostate biopsy in finding carcinoma of the prostate. We have found this technique to be safe, efficacious and superior to sextant biopsies in diagnosing prostate cancer in patients with a PSA level of less than 10 ng / ml.

Key Words: Sextant and extended systematic 5 – region trans-rectal ultrasound guided prostate biopsy, Carcinoma of prostate.

Bladder Cancer

71 Diagnostic accuracy of NMP 22 and urine cytology for detection of transitional cell carcinoma urinary bladder taking cystoscopy as gold standard
Muhammad tanveer sajid, Muhammad rafiq zafar, hussain ahmed

OBJECTIVE: Determine diagnostic accuracy of NMP 22 and urine cytology for detection of bladder cancer (BC) taking cystoscopy as gold standard.

METHODOLOGY: This cross sectional validation study enrolled 380 patients fulfilling selection criteria and was conducted over one year at Armed Forces Institute of Urology (AFIU), Rawalpindi. The urine sample collected underwent NMP22 and cytological analysis followed by rigid cystoscopy. Reports of all three tests divided patients into positive or negative for malignancy as per defined criteria. All this information was recorded & analyzed using IBM SPSS, Version 24.0.

RESULTS: The average age of patients was 53.08 ± 12.41 years having male to female ratio 3.75:1 (300 male & 80 female). NMP 22 had better sensitivity and comparable specificity to cytology (81.9 & 81.2% vs 54 & 93.9%). Combination of NMP 22 / cytology outperformed both in terms of sensitivity (91.63 vs 81.83 vs 53.96), NPV (87.59 vs 77.46 vs 61.02) and diagnostic accuracy (85.26 vs 81.58 vs 71.32) but at the cost of specificity (76.97 vs 81.21 vs 93.94) and PPV (83.83 vs 85.02 vs 92.06). ROC curve revealed statistically significant higher AUC (0.843 vs .815 vs .73) for combination as compared to NMP 22 and Cytology ($p < .001$).

CONCLUSION: NMP22 is quick, economical and acceptable test having higher sensitivity, NPV and accuracy but similar specificity and PPV to urine cytology. Combination outperformed both in terms of sensitivity while having modest specificity. When adjunct testing is desired in the diagnosis, screening and surveillance of BC, NMP-22 is an effective alternative alone or in combination, though currently they can't replace Cystoscopy

72 INITIAL RESULTS OF PILOT STUDY DEPICTING EFFICACY AND SAFETY OF INTRAVESICAL CHEMOHYPERHERMIA(HIVEC) WITH MITOMYCIN-C IN PATIENTS WITH INTERMEDIATE AND HIGH RISK NON MUSCLE INVASIVE BLADDER CANCER

Muhammad Yahya Hasan(presenter), Abdul Rauf(co author), Fazal Ur Rehman Khan(supervisor). Sheikh Zayad Hospital, Lahore Pakistan.

Background and aims Despite various intravesical therapies for non-muscle invasive bladder cancer(NMIBC), Issues like recurrences, tolerability, side effects and supply of intravesical agents; finding new treatment options is the need of time. The use of chemohyperthermia (CHT) as an alternative treatment is expanding world wide. In our study we present the initial data of patients treated with HIVEC MMC followed over a period of 6months.

Materials and methods Prospective analysis of 15 patients with intermediate and high risk NMIBC from May 2019 to October 2019 was done. After 2 weeks of TURBT all patients were given Intravesical instillation of 40mg MMC at 43°C for 60minutes using combat BRS system. Six, weekly doses were given as induction followed by maintenance doses. The response of each patient was evaluated after the treatment with check Cystoscopy at 3 months.

Results: 15 patients were treated with combat BRS system with a median followup of 6 months.

Introduction and Objective:

Bladder cancer ranks as the ninth most frequently diagnosed cancer worldwide, Highest incidence rates in men, particularly; Divergence in incidence trends are observed many countries, with stabilizing or declining rates in men but some increasing trends seen for women. Bladder cancer ranks 13th in terms of cancer related mortality. Surgery specially Radical cystectomy is still mainstay of treatment for patients falling into high risk category. In our study we will share our experience and outcomes of radical cystectomy.

Materials and methods: We did retrospective analysis of patients undergoing RADICAL CYSTECTOMY between March 2013 to August 2019. We found total 60 radical cystectomies were performed. Data was extracted in terms of Stage of the disease, Performance status of the patient (ECOG), Type of the surgery (Open, Laparoscopic or Robotic assisted) and its outcomes.

Results: The mean age was 55 years with male to female ratio of 4:1. Majority were transitional cell carcinoma (94.8%) of various stages pT2 (56.4%), pT3 (33.33%) and pT4a (10.25%) while Squamous cell carcinoma was found in (5.1%). We performed open radical cystectomy in 74%, laparoscopic 12.8% and robotic assisted laparoscopic 12.8%. Auxiliary procedure like Ileal conduit 76.9%, MAINZ –II pouch in 12.8% and Orthotopic neobladder in 10%. The average hospital stay for open surgery was 13 days (9-15), for laparoscopy 06 days(5-9) and Robotic 06 days(5-9). Average blood loss for Open was 1170ml(700ml-3000ml), laparoscopy 740ml(500ml-1000ml) and Robotic 350 ml (100ml- 800ml). Average operating time for open was 300 minutes(250-400minutes), laparoscopy 200 minutes(180-400minutes) and Robotic 240 minutes(200-420minute). Overall complications were bowel injury (5.1%), Rectal tear 2.5%, Descending colon injury 2.5%, deep vein thrombosis (DVT)(12.8%) Open(7.6%), Lap(5.1%) and wound dehiscence (7.6%).

Conclusion: Bladder cancer is a common urologic cancer with the highest recurrence rate. Timely diagnosis, proper staging and early treatment results in cure and control of most bladder cancers. Laparoscopic and robotic interventions reduce the convalescence and shorten hospital stay

74 EFFECT OF AGE AND GENDER ON THE CLINICOPATHOLOGICAL FEATURES OF BLADDER TUMOR

Afhan Shaikh, Muhammad Adeel Mahesar, Javed Altaf

Objective: To objective of the present was to examine the effect of age and gender on the clinicopathological features of bladder tumors in a single institution in Hyderabad, Sindh, Pakistan.

Material & Methods: From 1st January 2019 to 31st December 2019 Patient Records of bladder tumor Department of Urology, Liaquat University of Medical and Health Sciences Jamshoro was to examine the effect of age and gender on the clinicopathological features of bladder tumors in a single institution in Hyderabad, Sindh, Pakistan. A total of 95 patients were identified and enrolled for this study. The bladder specimens of all the patients were sent for histopathological examination to find out the nature and grade of the disease. History of patients and histopathological characteristics were noted in the proforma.

Results: A total of 95 cases were enrolled in this study. Mean \pm SD duration of disease was 2.1 \pm 1.3 years. Out of 95 patients, 81 were male and 14 were female with 5.7: 1 male to female ratio. The average age of the patients was 60.04 \pm 10.3 years. Minimum age was 40 years and maximum age was 72 years. Most of the patients 57 were between 50 - 59 years. Painless macroscopic hematuria was found in 61 males and in 8 females. Dysuria was found in 31 males and in 5 females. Urine urgency was found in 19 males and in 2 females. Majority of cases with painless macroscopic hematuria had age between 50 – 59 years, 47 Majority of cases with dysuria had age between 50 – 59 years, 24, majority of cases with urine urgency had age between 50 – 59 years, 16 (28.1%), but difference is insignificant (p-value = 0.2).

Conclusion: In this study painless macroscopic hematuria and histological sub-type transitional-cell carcinoma was dominant with significant male preponderance among patients. Adult aged patients have low-grade disease. Hematuria is the common presentation and greater awareness is needed not to overlook bladder cancer.

75 A Cystic Teratoma of the Urinary Bladder

Safdar Shah, Imran Ansari, Wajid Ali and Sha-msul Islam

Abstract:

We report a case of teratoma in urinary bladder in seventeen years old female, which is an extremely rare. A patient presented with pain in suprapubic region since 1 year on imaging (CT-Abdomen and pelvis) a well-defined heterogeneous soft tissue density enhancing lesion measuring 2.5x2.3x3cm with Mean density of 48HU it was found to be taking its origin from the superior wall of bladder and projecting in to lumen. On Cystoscopy it showed about 2X2cm growth containing concretion. Resection of lesion done with wide margin by TURBT.

Histopathological findings were consistent with fragments of skin sebaceous glands and fat and muscle cells confirming mature cystic teratoma.

Keywords: Concretion. Germinal epithelium. Dermoid cyst. Teratoma. Cystoscopy.

76 Is partial cystectomy a viable treatment option for bladder cancer?

Prof. Muhammad Naeem Head of Department of Urology, Rawal Institute of Health Sciences Islamabad.

Background. While radical cystectomy is the treatment of choice for invasive bladder cancer, partial cystectomy may be considered as a viable treatment option based on recent findings

Objective. To evaluate our experience of partial cystectomy in selected patients of invasive bladder cancer.

Material and Methods. We studied 10 patients who underwent partial cystectomy for stage T1-4,N0,M0 from 2014 to onwards.

Results. Median follow up was 13 months (Range 1-48 months). 3 patients lost follow up after one year. 4 patients died within one year. 3 patients are attending regular follow up.

Conclusion. Once discarded partial cystectomy now may be considered as standard treatment of care option in selected patients though long term outcome remains to be defined.

Urolithiasis

77 Tubeless Versus Standard Percutaneous Nephrolithotomy - Dr Raj Kumar LNH

Background: Percutaneous nephrolithotomy (PCNL) is the open surgical management of large renal calculi. Tubeless PCNL has been known to be comparable to standard PCNL in hemorrhagic and postoperative complications.

Objective: To compare the outcomes of standard versus tubeless percutaneous nephrolithotomy techniques in patients with kidney stones.

Study Design: Randomized Control Trial.

Setting: The Department of Urology, Liaquat National Hospital, Karachi.

Duration: From 30th September 2018 To 29th March 2019.

Material and Methods: Total 104 patients were equally divided into Group-A (Standard PCNL) and in Group-B (Tubeless PCNL). Radiological evaluation was performed for size and location of stones. Length of fluoroscopy, procedure time, and length of hospital stay were recorded. Pain at 1st hr and 6th hr among tubeless PCNL technique was compared to standard PCNL technique using student t-test. Descriptive statistics were calculated. P value ≤ 0.05 was considered as significant.

Results: Mean stone size in group-A and group-B was 2.65 ± 0.56 cm and 2.64 ± 0.46 cm respectively. Mean fluoroscopy length, operative time, hospitalization length, VAS pain score at 1st hour and 6th hour were 6.34 ± 1.76 min, 87.86 ± 17.73 min, 3.90 ± 0.69 days, 7.25 ± 1.20 and 5.01 ± 1.22 respectively in group-A while in group-B, these were 3.84 ± 1.30 min, 74.03 ± 15.33 min, 3.30 ± 0.75 days, 6.26 ± 1.17 and 3.38 ± 1.30 respectively. Significant mean difference among study group for fluoroscopy, operative time, hospitalization length, VAS pain score at 1st hour and 6th hour was observed.

Conclusion: The tubeless technique has a high success rate and may help in reduction in pain and hospital stay.

Keywords: Outcomes, Standard PCNL, Tubeless PCNL, Kidney Stones.

78 To compare the mean USSQ score of Single Drug Therapy (with Tamsulosin) and Combination Drug Therapy of (Tamsulosin and Solifenacin) in patients with Double J stent insertion. Fakhir Yusuf (TKI).

Objective: To compare the mean USSQ score of Single Drug Therapy (with Tamsulosin) and Combination Drug Therapy of (Tamsulosin and Solifenacin) in patients with Double J stent insertion.

Subjects and methods: All patients aged 18–60 years of both genders undergoing new unilateral DJ stenting were included. Group-A received combination therapy of Tamsulosin and Solifenacin, and Group-B received only Tamsulosin. At the time of discharge, USSQ was handed over to all participants to have the assessment recorded at the end of Week-1 and Week-4.

Results: Mean age of the patients was 42.50 ± 10.91 years. Mean USSQ assessment score at 1st week was significantly higher in group B than that of group A (44.71 ± 13.67 vs. 38.41 ± 12.04 , p-value 0.017). Mean USSQ assessment score at 4th week was significantly higher in group B than that of group A (16.33 ± 5.76 vs. 12.37 ± 4.57 , p-value < 0.001).

Conclusion: The findings of this study reported a difference in the mean USSQ score of combination therapy with Tamsulocin and Solifenacin in comparison to monotherapy Tamsulocin in reducing DJ related symptoms. Therefore combination therapy is more effective.

79 Supine versus Prone Position in Percutaneous Nephrolithotomy: A Prospective Comparative Study

Harris H Qureshi, Riaz H Laghari, Gauhar Sultan, Munawwar Khalique, Murli Lal, Manzoor Hussain, Altaf Hashmi, Adib Rizvi

Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction

PCNL is the main treatment method for patients with large upper urinary tract calculi. PCNL is conventionally performed in prone position. Supine position has many advantages over prone position. Our aim is to compare both positions in terms of operative time and stone clearance rate.

Objective:

To compare operative time and stone free rate of percutaneous nephrolithotomy in the supine versus prone position

Materials and methods

We performed PCNL in both supine and prone positions at single center by surgeons which have more than 3 years experience of PCNL. Sample size calculated by using RAOSOFT Software, that came to be (n)130 with margin of error of 5% and 95% confidence interval(CI).

Randomization was not done and patients were divided in two groups. Two groups in terms of mean operative time, stone clearance rate, complications and hospital stay were compared.

Results were analyzed using t-test and chi-square test and p-value of <0.05 considered as significant.

Results

Pelvicalyceal system can be accessed in both the groups. Mean operative time in supine group was 75min and in prone group was 85 min which is statistically significant. Stone clearance rate was 85% in supine group and 88% in prone group which is not significant. Complications rate and mean hospital stay were similar in both the groups.

Conclusion

PCNL in supine position is safe and effective for the patients. It has the potential advantages of better urethral access, less patient handling, needing single drape, ability to perform simultaneous PCNL and ureteroscopic procedures, good control of airway during procedures, thus reducing over-all operative time compared to prone position and same stone free rate.

80 RIRS for Renal Pelvic Stones 1.5 to 2.0 cm using Semi-rigid Uretero-rensoscopy
Harris H Qureshi, Riaz H Laghari, Gauhar Sultan, Rehan Mohsin, Manzoor Hussain, Altaf Hashmi, Adib Rizvi
Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction

Retrograde intrarenal surgery (RIRS) is among the recommended treatment modality for stones located in renal pelvis and is of less than 2 cm. Renal Stones with Hounsfield units more than 1000 have low stone free rate with extracorporeal shockwave lithotripsy (ESWL). We aim to evaluate effectiveness and safety of semirigidureteroscope in fragmentation of renal pelvic stone.

Materials and methods

Patients with 1.5-2.0 cm stone located in renal pelvis of more than 1000 HU who underwent retrograde intrarenal surgery as primary procedure at Sindh institute of urology and transplantation were included. Stone fragmentation was achieved with holmium-yttrium aluminum garnet laser. Secondary procedure were performed if complete stone fragmentation was not achieved. Statistical analysis was performed by SPSS version 20.

Results

Total 82 patients with mean size of pelvic renal stones 1.7 ± 0.5 cm were included. The mean operating time was 32 ± 12.9 mins. The stone free rate at six weeks after the first procedure was 79.2% which further improved to 84.1% after secondary procedure. In two patients second session of RIRS was performed while 15 patients underwent ESWL as secondary procedure. To avoid uretral obstruction, double J stent were deployed in 60 (73.1%) patients. Minor complications including fever and hematuria were reported in 7.5 % patients.

Conclusion

Retrograde intrarenal surgery using semi-rigid ureteroscope is safe and effective for renal stones of 1.5 to 2.0 cm with Hounsfield units more than 1000. The procedure can be carried out as day care and has low morbidity.

81 High Energy LASER fragmentation in RIRS, a Unique Way of dealing Large Renal Stones.

Presenter: Dr. Muhammad Farrukh Naveed

Consultant Urologist, Kidney Centre, Bahawal Victoria Hospital, Bahawalpur.

Tabassum SA, Naveed MF, Barkat B, Saleem MS, Pansota MS.

Abstract:

Introduction:

Percutaneous Nephrolithotomy is considered the gold standard treatment for the large renal stones. Retrograde intrarenal surgery (RIRS) is considered an option for the small renal stones only and even that with very low energy laser lithotripsy. Low energy laser lithotripsy in RIRS is a slow process. High energy laser is thought to be dangerous and difficult to handle. Over the period of a year we gradually adopted high energy laser (10-100watts) fragmentation in RIRS. This procedure was way faster than low energy dusting and we started treating bigger and bigger stones with this modality. We present our experience with high energy laser fragmentation in RIRS in large renal calculi in adults above 14years.

Methods:

All patients undergoing high energy laser fragmentation for renal calculi at our institution from August 2018 to October 2019 were reviewed. Demographics, surgical details and post-operative follow-up information were obtained to identify stone clearance rates and complications.

Results:

High energy laser fragmentation in RIRS was performed in 58 renal units, 54 patients (Mean age: 23.8years). The mean stone diameter was 22mm (Range: 15-32mm). Bilateral RIRS was done in 8 patients. Overall, 26 multiple calyceal stones and 32 single stones were treated. Pre-stenting was done in 53 patients. The mean anaesthesia duration for the procedure was 40minutes (Range: 25-123minutes). Out of 54 patients, 52 (96.3%) were completely stone free after 2 weeks. Only 2 patient had residual stone fragments and needed extracorporeal shock wave lithotripsy. Both of them became stone free after single session of ESWL. There was no significant bleeding or sepsis encountered either during the operation or in the post-operative setting. No visual difficulty was experienced with high energy laser on fragmentation settings.

Conclusion:

High energy laser fragmentation in RIRS is a safe and fast procedure for large renal stones. It may challenge PCNL in near future.

82 Title: "EFFECTS OF MIRABEGRON VERSUS TAMSULOSIN IN REDUCING LOWER URINARY TRACT SYMPTOMS IN PATIENTS WITH INDWELLING DOUBLE J STENTS:A DOUBLE BLIND RANDOMIZED CONTROL TRIAL." Dr Hafiz Yousaf Khan. (SZMC)

Purpose: I evaluated the effects of mirabegron and tamsulosin in reducing double J stent related lower urinary tract symptom by comparing change in mean IPSS score.

Materials and Methods:Patients who are 18-60 years of age of both sexes (male/female) having lower urinary tracts symptoms with double J stent placement will be included in the study.

100 cases(50 each) using 95% confidence interval,80% power of test taking and expected mean IPSS after treatment as $12.77 \pm 5.24(4)$ in tamsulosin group and $5.02 \pm 9.387(1)$ in

mirabegrongroup; will be enrolled by prospective randomized control trial. There will be non probability consecutive sampling technique and statistical software "SPSS 21" will be used for data analysis.Safety assessment includes difference in mean IPSS score in mirabegron vs tamsulosin group in patients with DJ stent related lower urinary tract symptoms.

Result: As this is the ongoing research, provisional data shows IPSS score 12.77 ± 5.24 after treatment in tamsulosin group and 5.02 ± 9.387 in mirabegron group.

Conclusion:As per above results mirabegron is more effective in reducing lower urinary tract symptoms as compared to tamsulosin in terms of decrease mean IPSS score.

83 Supine PCNL! is it replacing the Standard PCNL? Dr Yasir Khan (JPMC).

OBJECTIVE:- To determine the outcome of Supine Percutaneous Nephrolithotomy in the kidney stone patients.

Study Design:-Descriptive Case series.

Place and duration of Study: Department of Urology and Transplantation, Jinnah Postgraduate Medical Center Karachi. From June 2019 to dec 2019.

Material Methods:- in this single center study of total 30 patients were included who underwent supine percutaneous nephrolithotomy for renal stone. Data of all patients was recorded and analyzed with the mean follow up of at least one month after procedure using SPSS.23 version

Results:

Total 30 adult patients were included in this study with mean age of 30.38+ 8.54 years(19-47 years). all were followed for three months (1-3months). Out of 30 patient 23 patients had stone size greater 3 cm while 7 patients had stone size of 1.5 to 3 cm. mean stone size -----single tract made in 27 patients while double tract made in 3 patients. 100% stone clearance stone was achieved 86% confirmed on fluoroscope and nephroscope during procedure while residual stone in 14%. 4 patients developed post operative complication. 3 patients had developed fever which was settled down with symptomatic treatment while one patient developed urine leakage from the tract site which was managed conservatively.

Conclusion: - Supine PCNL is as effective as prone PCNL in the expert hand. It has more advantage over prone position not only good recovery but also less time consuming when compared to standard PCNL

Relatively less learning curve

Key Words:-Renal Stone, PCNL, Prone PCNL , Supine PCNL

84 Title: Safety and efficacy of total ultrasound guided percutaneous nephrolithotomy.

Authors: Nasir Khan, Hazratullah, Tanvir Ahmed

Setting: Urology department, Khyber Teaching Hospital, Peshawar.

Introduction: Ultrasound is a reliable imaging for screening and localization of renal stones.

However its role in percutaneous nephrolithotomy is underutilized by urologists worldwide.

Objective: To evaluate the safety and efficacy of PCNL under ultrasound guidance.

Materials and methods: It was a cross sectional study of patients who underwent single tract, prone position PCNL from May 2018 to February 2019. A 3.5 Mhz ultrasound transducer was used for renal puncture and dilatation. Stones were broken with Swiss Pneumatic Lithoclast.

Data were analyzed using SPSS ver. 22.

Results: A total of 91 consecutive patients were included in the study. The mean age at presentation was 44.8 +/- 12.6 years with mean BMI 26.6 +/- 3.5. Ninety two percent of the patients were ASA category 1 or 2. The mean stone size was 28.8 +/- 10.4 mm. The lower pole calyx was the most commonly punctured (61.5%), followed by middle calyx (29.6%). The mean operative time was 76 +/- 12 min. The mean hospital stay was 3.1 +/- 1.2 days. Complete stone clearance was achieved in 74 patients (81.3%). With ancillary procedure (ESWL/URS), stone clearance was achieved in 82 patients (90.1%). Most of the complications were Clavien grade 1 and 2.

Conclusions: Prone PCNL under ultrasound guidance is safe with good stone clearance rates, minimal complications and avoid radiation exposure.

Key words: Percutaneous nephrolithotomy, ultrasound, Postoperative complications, stone clearance, Clavien grading system.

85 Laparoscopic Trans-peritoneal Ureterolithotomy- Experience of 60 Cases in a Tertiary Care Hospital

Abstract:-

Objective:-To determine the outcome of trans-peritoneal laparoscopic ureterolithotomy in difficult and large ureteric stone and evaluate the safety and efficacy of this procedure.

Study Design:-Descriptive case series

Methodology:-This study was conducted in urology department from January 2012 to December 2017 with minimal one year follow-up. Patients with impacted stone more than 15 mm, failed URS and ESWL were included in this study. 90% of our patients were primary procedure. All procedures were performed trans-peritoneal using three port technique and modified lateral position. Ante- grade Double J stent was placed in most of cases. Intraoperative and postoperative complications were noted and recorded.

Result:- The mean age of the patient was 36.65+ 12.41 years (range, 15-76). Right sided stone were 37(61.6%) while 23(38.3%) patients having left sided ureteric stone. Out of 60 patients, 42(70%) having stone in proximal ureter, 8(13.3%) have mid ureteric and 10 (16.6%) patients have distal ureteric stone. Stone size varied 15 mm to 30 mm and the mean stone size was 18.2mm +2.56 mm. The mean operation time was 99.38 min + 22.32 min whereas the mean blood loss was 27.35ml +9.9. Stent was placed in 48 (80%) patients while remaining 12 (20%) patients did well without stent. Stone clearance rate was 100%. Over all complication rate was 20% with no major complication.

Conclusions:-

Laparoscopic Ureterolithotomy is a safe minimal invasive and effective modality for treating ureteric calculi as a primary procedure or salvage procedure in experienced hands.

Key words:-Laparoscopy, Ureterolithotomy, Trans peritoneal

86 HOUNSFIELD UNITS- A SIGNIFICANT PREDICTOR OF LASERING ENERGY AND TIME FOR UPPER URINARY TRACT STONES USING HOLMIUM: YTTRIUM-ALUMINUM GARNET LASERS

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Co-author: Dr. HammadAther MBBS, FCPS(urol), FRCS (Glas), Fellow of European Board of Urology Professor and Head of Urology Aga Khan University

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Objective: To study the impact of stone density as assessed by Hounsfield units (HU) on total laser energy used and total laser time spent in complete fragmentation of upper ureteral stones. We also studied the impact of stone composition on the two laser parameters.

Methods: 30 consecutive patients fulfilling inclusion and exclusion criteria were included in the study. Patients with renal or proximal ureteral stone 5-20 mm were included. Stone fragmentation was performed using Ho:YAG 100 watt laser and total lasering time (TLT) and energy (TLE) was correlated with the HU and stone composition.

Results: The mean maximum stone diameter was 10.83 ± 3.5 mm and the mean HU was 893 ± 315 . The mean TLE and TLT were 8.86 ± 3.12 kJ and 18.46 ± 6.9 minutes, respectively. We observed a strong positive correlation between HU and TLE ($r=0.84$, p -value < 0.001) and between HU and TLT ($r=0.58$, p -value= 0.001). However, the stone composition did not influence the lasering energy (p -value= 0.36) and lasering time (p -value= 0.30). Stone diameter also had significant positive correlation with TLE ($r=0.41$; $p=0.02$) and TLT ($r=0.54$; $p=0.002$). When controlling for stone size the correlation of HU with TLE ($r=0.83$; $p < 0.001$) and TLT ($r=0.52$; $p=0.004$) remained significant.

87 Partial stone clearance and its contributing factors after PCNL:

Sharjeel Saulat, Anees ur rehman ,Syed Saeeduddin Qadri, Iqbal Mansoor, Awais Ayub, Hamza Ashraf

Objective : To evaluate the contributing factors responsible for incomplete stone clearance after PCNL.

Methods: A total of 256 patients who underwent single tract standard PCNL or Mini-PCNL in our hospital from March 2017 to March 2019 were retrospectively analyzed. All patients who underwent imaging studies at the time of first follow up in clinic were enrolled. Impact of factors like previous renal surgical intervention, number of stones, guys stone score, type of pelvicalyceal system according to sampao classification and surgeon's experience on stone free rates were analyzed.

Results: 38 (14.8%) patients had partial clearance of stone. Mean age of patients was 37.54 ± 14.17 years. There was male predominance with 167 (65.2%) male population. We found significant association of number of stones (odds ratio 5.36 (2.54-10.84), p-value <0.001), previous surgery (odds ratio 241 (30.57-1901), p-value <0.001), pre-op Guy's score >4 (odds ratio 32.9 (32.99-50.0), p-value <0.001) with incomplete clearance of stone . While AI, BII PCS types were associated with higher stone free rate PCNL (p-value <0.001). Mean size of residual stones was 0.15 ± 0.42 cm. Interestingly we found lower rate of residual stones in surgeons having shorter experience, partial clearance was 21.1 % among surgeons having experience 1-2 years and partial clearance was 60.5% among patients having experience ≥ 3 years (odds ratio 4.76 (2.09-10.86), p-value <0.001).

Conclusion : The main factors concerned with residual stones after PCNL were found to be multiple number of stone, history of previous renal surgery and higher Guy's stone score. In complex cases stone free rates are lower even in experienced hands. However type AI and BII Pelvicalyceal System were associated with higher stone free rates.

88 Initial experience of retrograde intrarenal surgery (RIRS).

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ABSTRACT

INTRODUCTION: Retrograde intrarenal surgery is performed using a flexible ureterorenoscope marked the beginning of a new era in urology and is now considered one of the first-line treatment options for active removal of renal stones.

MATERIALS AND METHODS: From OCT 2019 until December 2019, 10 patients with diagnosis of renal calculi underwent retrograde intrarenal surgery (RIRS). Standard preoperative evaluation was carried out prior to intervention, RIRS. Statistical analysis was performed using SPSS v. 23. The outcomes measured were stone-free rate (SFR). Stone-free status was defined as no residual fragments of ≥ 0.3 cm on plain abdominal radiograph of the kidneys, ureters and bladder, and ultrasonography at 1-day postoperatively. Secondary endpoints included blood loss, operating time, auxiliary procedures, complications.

RESULTS: Ten patients underwent retrograde intrarenal surgery. Mean size of the renal stones was 1.8cm with a range of 1.5 to 2.5cm. Mean time of RIRS was 1.hrs. RIRS was unsuccessful in 1 (10%) patient. No auxiliary procedure was required. Complete clearance of stone fragments was achieved in 90% of patients with minimal complication rates. DJ stenting was accomplished in 3 patients (30%).

CONCLUSION: In patients with renal stones 1.5- 2.5cm in diameter, RIRS has been regarded as the optimum method. However, RIRS affords a comparable success rate, causes fewer risks of complications, and seems to be a promising alternative to PNL

Key words. RIRS: Retrograde intrarenal surgery. Renal stone

89 Clinical outcomes of Simultaneous bilateral PCNL by using master lithoclast.

Master Lithoclast: its effects on clinical outcomes and stone breakage time.

Introduction:

Urinary tract stones are the most common urological conditions due to their comparatively higher prevalence in underdeveloped countries. Bilateral renal stones are more dangerous than unilateral as they may result in lethal complications such as obstructive uropathy and renal failure. To overcome these complications simultaneous bilateral PCNL is taken into account with different energies to break stones, during stone clearance the main consideration is to reduce surgery duration, tissue damage and ease of use. After pneumatic and ultrasonic energy, a new, modified Master lithoclast (also known as trilogy lithoclast) is been introduced with the combination of pneumatic and ultrasonic energy. The purpose of this study is to evaluate the safety and efficacy of Master lithoclast in simultaneous bilateral PCNL and its effects on stone clearance.

Methodology:

It is a prospective, single – centered case series, involving 17 patients with bilateral renal stones undergoing bilateral PCNL. This study was carried out in Liaquat University of health sciences jamshoro for 05 months from September 2018 till January 2019. Analysis was done with respect to demographic details, stone characteristics, stone clearance, surgery time, adverse events, need for blood transfusion and hemoglobin drop. Efficacy was determined by analyzing the stone clearance.

Results:

Male vs. female ratio of our case series was 9:8, with mean age of 32.7 ± 7.9 . Mean stone burden on Right side was 3.11 ± 0.5 while on left side 3.11 ± 0.4 . Duration of surgery was analyzed as mean value with results of 75 ± 17 minutes; mean hospital stay is 3 ± 0.7 days after bilateral PCNL. Hemoglobin drop was measured 0.4 mg/dL with pre OP mean value of 14.2 ± 0.7 and post OP mean value of 13.8 ± 0.6 . Creatinine mean values dropped significantly after 01 day Post OP, 06 days post Op and 12 days post OP with mean values of 1.61, 1.27 and 1.09 respectively. Complete clearance of Stones was noted in 13 cases while 04 with partial clearance had ESWL session for complete clearance.

Conclusion: Master Lithoclast provide faster stone clearance and unaffected by the complication of stones, ease of usability and improved tissue safety with reduce chances of fragments blocking are key factors.

90 Role of flexible Ureterorenoscope with Holmium laser in 15-20 mm lower calyceal stones: An Optimum treatment modality

Muhammad Shahzad ,Liaqat Ali, Nasir Orakzai, Sikander Hayat (IKD)

Background

The management of lower calyceal stones has always been a subject of great debate. The debate of under treatment in form of ESWL versus over treatment in form of PCNL. There has been considerable diversity of data in overall efficacy of both the modality in lower calyceal stones. The introduction of flexible ureterorenoscope with holmium laser has emerged as third and most optimum option in moderate size lower calyceal stones.

Objective

To determine the efficacy in term stone free rate and safety of flexible URS with Holmium lasers in 15-20 mm lower calyceal stones

Methods

It is a descriptive study conducted in department of Urology at Institute of Kidney Diseases Peshawar from June 2017 till December 2018. We included patients above 13 year old with lower calyceal stones ranging from 15-20 mm irrespective of gender. Total of 70 patient were included in the study by non-probability consecutive sampling. All the patient underwent flexible URS with lasers by single surgeon. Data was collected on structured proforma and was analyzed on SPSS.

Results:

Mean age of patient was 35 ± 4.5 years. 46 patients were male and 24 were female. 33 patients had primary lower calyceal stone, 25 had residual fragments post ESWL while 12 patients had residual stone after PCNL. The mean stone size was 17.5mm. Complete stone clearance was achieved in 66 patients (94 %). No significant complication in terms of calyceal perforation or significant bleeding was encountered in procedure. Failure was recorded in only 4 patients: 2 failure to access and 2 failure to fragmentation.

Conclusion:

Flexible URS with Holmium laser is extremely safe and effective procedure in management of moderate size lower calyceal stones.

91 Efficacy and safety of Retrograde Intrarenal Surgery in Treatment of ESWL-resistant stones
Dr Hafiz Muhammad Aeymon (presenter), Dr. Fazal-ur-Rehman
Urology Department Sheikh Zayed Hospital Lahore

Objective: To share the experience of retrograde intrarenal surgery (RIRS) for ESWL-resistant stones of less than 2cm.

MATERIALS AND METHODS: Between January 2018 to December 2019, 65 patients underwent RIRS for ESWL-resistant stones. Only patients who had ESWL resistant stones were added in this study. After detailed history and examination, all necessary investigations and imaging were done. All patients underwent pre-procedure stenting for 3 weeks \pm 1 week for ureteric dilatation to facilitate ureteric sheath placement. Any complications occurring within first one week postoperatively were considered intervention related complications. Postoperatively, the patients were followed up after 4 weeks \pm 1 week for DJ Stent removal. Data was analyzed in terms of stone clearance and procedure-related complications.

RESULTS

Total 65 patients underwent RIRS at our institute from January 2018 to December 2019. Mean patient age at surgery was 43.5 years (range 7 to 65). 36 patients were males and 29 were females. 31 stones were in the left kidney and 34 in the right kidney. The mean duration of surgery was 55 minutes \pm 15 minutes. The mean hospital stay was 2.32 \pm 0.63 days (2-4 days). In all cases, a DJ stent was inserted. Most common postoperative complication was fever observed in 5 patients followed by mild haematuria observed in 3 patients, while steinstrasse was observed in 2 patients. The complete stone clearance was achieved in 57 patients (87.69%) undergoing RIRS at our Department.

CONCLUSION

RIRS appears to be an effective, reliable and relatively safe method for stone clearance in patients who have ESWL-resistant stones of less than 2 cm.

92 LIAQAT ALI, NASIR ORAKZAI MUHAMMAD SHAHZAD ,
TITLE: COMPARISON OF THE RENO-PROTECTIVE EFFECTIVENESS OF
MULTIVITAMINS VERSUS LOSARTAN IN REDUCING ALBUMINURIA AGAINST
EXTRA CORPOREAL SHOCK WAVE LITHOTRIPSY INDUCED RENAL INJURY.
SIKANDER, Faiza Hayat , LIAQAT ALI, NASIR ORAKZAI MUHAMMAD SHAHZAD

ABSTRACT:

INTRODUCTION:

Extracorporeal shock wave lithotripsy is an important treatment modality in management of urolithiasis. The over use and abuse of ESWL especially in private sector of KPK has given bad name to this tremendous technical modality. Although considered as minimal invasive treatment, ESWL invariably results in nephron injury. The renal injury associated with ESWL can be picked by markers like measurement of urinary albumin, urinary neutrophil gelatinase- associated lipocalin(uNGAL) and dynamic contrast enhanced MRI. Several medications including Verapamil, Losartan and multi vitamins containing selenium has been reported beneficial in reducing the ESWL induced renal injury. Current study is based upon a research question that which of either are best in reducing the ESWL induced renal injury.

OBJECTIVE:

To Compare the Reno-protective effectiveness of Multi vitamincs versus Losartan in reducing Albuminuria against extra corporeal shock wave lithotripsy induced renal injury.

METHODS:

It is a randomized control trail conducted in Department of Urology "Team C" at Institute of Kidney Diseases Peshawar from June 2018 till December 2018. We included patients of less than 20 mm renal stone amenable with ESWL. We excluded patients with Diabetes Mellitus, Hypertension, congenital renal anomalies, marked hydronephrosis and patients with pre-operative albuminuria. The total sample of 270 was equally divided in to three groups by lottery method. Group "A" comprising of 90 patients (Control). Group B Comprising of 90 patients who were given multivitamin (Selenium, Vitamin A& C) 2hour before and 1 tablet every 8 hours after ESWL for 1 week. Group C comprising of 90 patients were given Tab Losartan 50 mg 2 hour before ESWL and 1 OD after ESWL for 1 week. The albuminuria was assessed before ESWL and at 2-4 hours and 1 week after standard ESWL of 3000 shocks. All the data was recorded on structured proforma and was analyzed on SPSS.

RESULTS:

All the demographic variables like age, gender. Laterality, BMI in both of group were similar with no significant difference, the albuminuria before ESWL in Group A.B and Group C was 13.9 mg/dl and 14.1 mg/dl and 14.6 mg/dl. The albuminuria after 2-4 hours of ESWL in group A was 744 mg/dl while it was 547 mg/dl in Group B AND 581 mg/dl in Group C (P 0.098). The albuminuria after 1 week of ESWL in Group A was 76 mg/dl, it was 59 mg/dl in Group B versus 41 mg/dl in Group C (p< 0.001)

Conclusion: Losartan is Reno protective against ESWL induced renal injury by significantly decreasing albuminuria.

93 Evaluate the safety and efficacy of mini percutaneous nephrolithotomy (mini PCNL) with fluoroscopy guided renal access in the lateral decubitus flank position. Samina Khizar (AFIU 26-2) – Short Abstract

94 Urinary Citrate Deficiency In Recurrent Renal Stone Formers: A case for routine 24 hours urine chemistry.

Shoaib Rafique MBBS, MCh (Urol)-UK. Multan Institute of Kidney Diseases, Multan. Pakistan.

ABSTRACT

Introduction and Objectives: Nephrolithiasis is a common disorder. Citrate deficiency is present in a significant number of recurrent renal stone formers but not much work on this aspect of nephrolithiasis has been reported from Pakistan. The objective of present study was to report frequency of hypocitraturia in the stone prevalent area of the country in order to offer stone preventive strategies.

Material and Methods: The retrospective study included 112 patients of both genders, aged 18 to 60 years, who were treated at Multan Institute of Kidney Diseases, Multan, Pakistan. Those patients who had recurrent renal stones (at least two times), normal renal function and no co-morbidities and on no drug therapy were included in the study. The permission for study was granted by the Institution's Ethical Committee. The data were collected from hospital's record of recurrent stone formers for analysis. The patients demographics, family history, stone location (unilateral or bilateral), history of stone passage and type of intervention for stones, stone analysis and 24-hour urine volume was recorded. All patients had 24 hour urinary citrates estimated from same laboratory, which used same method for citrate estimation. The differences in the citrate levels between genders, age groups, positive family history of nephrolithiasis, unilateral and bilateral renal stones were analyzed.

Results: There were 96 (86.7%) male and 16 (14.2%) female patients. The mean age of male and female patients was 33.46 (± 10.30) and 29.63 (± 12.64) years respectively. Family history of renal stones was present in 33% patients. Most patients (67.8%) had bilateral renal stones. The mean 24 hours urinary volume was 1617.49 ± 822 ml and 92 (82.14%) of patients had a lower 24-hour urine volume (less than 2 liters). The mean 24 hours urinary citrate was 277.26 ± 173.37 mg and it ranged from 68mg to 1152mg. The female patients had lower mean urinary citrates than male patients [222.93 ± 150.62 mg vs 286.32 ± 175.94 mg: $p=0.177$). The relationship of age and gender on urinary citrate showed decreased urinary citrate levels in female patients with increasing age. The analysis of the effect of age on 24 hour urinary citrates levels in both genders revealed no significant difference. The patients with family history of renal stones had lower 24 hour urinary citrates than those patients with no positive family history for renal stones. The mean 24 hours urinary citrates in patients with bilateral renal stones were lower than in patients with unilateral renal stones

Conclusion: The present study revealed high frequency of hypocitraturia in recurrent renal stone formers. However, no statistically significant differences in the frequency of hypocitraturia were observed in both genders and age groups. Patients with positive family history of nephrolithiasis and those with bilateral renal stones had lower urinary citrate levels. A routine 24 hours urine chemistry in recurrent stone formers is recommended to identify citrate deficiency so patients with hypocitraturia can be offered dietary and life style modification and/or potassium citrate therapy to reduce the recurrence of renal stones.

95 Objective: To ascertain safety and efficacy of Percutaneous nephrolithomy (PCNL) in patients with history of open renal surgery. Dr Fakhir Yousuf (TKC)

Patients and Methods: 87 patients with previous history of open renal surgery (pyelolithotomy) underwent PCNL during study period and were taken as cases into Group A. An equal number of PCNL patients who never had previous open renal surgery were taken as controls and comprised of Group B.

Results: Both groups had comparative gender ratio [p = 0.858]. Mean age [p = 0.132] and BMI [p = 0.879] of patients in both groups was not significantly different from each other. Both groups showed statistically indifferent values in terms of stone size [p = 0.186], stone laterality [p = 0.961], stone location [p = 0.949], Pre-op HB [p = 0.095], Post-op HB [p = 0.423] and Change in HB (Blood loss) [p = 0.398]. Puncture level values were significantly different among both groups [p = 0.008], while Operative time [p = 0.805], Calyx punctured [p = 0.051], Double puncture [p = 0.787], Nephrostomy tube [p = 0.288] were statistically indifferent among groups. Similar number of patients demonstrated Residual stones [p = 0.773], along with Residual stone size [p = 0.726]. Intra and post-operative complications like Blood transfusion [p = 0.700] and Fever [p = 1.000] along with Hospital stay [p = 0.614] were also comparable among groups.

Conclusion: PCNL is safe and effective for sizable renal stones, even in previously operated kidneys where there is significant fear of tissue scarring and calyceal anatomy distortion.

96 Comparison of Percutaneous Nephrolithotomy for Staghorn Renal Calculi Using Pneumatic Lithotripsy Alone or in Combination with Ultrasonic Lithotripsy

Usman Qamar, Riaz H Laghari, Harris Qureshi, Murli Lal, Manzorr Hussain, Altaf Hashmi, Adib Rizvi

Sindh Institute of Urology and Transplantation, Karachi, Pakistan

Introduction: Current guideline recommend percutaneous nephrolithotomy as a procedure of choice having stone size larger than 2 cm, infected stones, lower calyceal stones and in patients in whom shock wave lithotripsy has failed. The pneumatic and ultrasonic lithotripsy devices can be used alone or in combination (pneumatic + ultrasonic). These two systems work through different mechanisms but possess different advantages and disadvantages in practice.

Objective: To compare the operative outcomes (e.g. operation time, stone clearance rate and hospital stay) in patients treated with combined pneumatic lithotripsy plus ultrasonic lithotripsy versus pneumatic lithotripsy alone for the management of staghorn renal calculi.

Patients and Methods: In this randomized clinical trial, a total number of 66 patients with diagnosis of staghorn calculi, who were planned for PCNL were included. Patients were divided into two equal groups. Group I: Patients underwent combined use of pneumatic plus ultrasonic lithotripsy for the treatment of renal stones and Group II patients underwent pneumatic lithotripsy alone. Operation time, hospital stay and stone clearance was noted in all patients. Data analysis was carried out using SPSS v20.0. Chi-square test was used to compare stone clearance rate between groups. Independent sample t-test was used for comparison of operation time and hospital stay time between the groups.

Results: The mean age of the patients was 49.83±9.06 years. There were 42 (63.6%) males and only 24 (36.4%) females. There were 50 (75.8%) patients who presented with partial staghorn stones and only 16 (24.2%) patients were presented with complete staghorn stones. Stone clearance rate was 87.9% in group I and 81.8% in group II patients with a p-value of 0.49. The mean operation time was 190.72±17.15 minutes in group I and 225.09±18.49 in group II (p-value <0.001). The hospital stay time was 3.48±1.00 days in group I and 4.45±1.37 days in group II (p-value 0.002).

Conclusion: The combination of ultrasonic lithotripter and pneumatic lithotripter is more effective than pneumatic lithotripter alone because it significantly decreases operative time hospital stay and increases stone clearance rate.

97 Micro-PCNL, Our Experience at the Kidney Centre Bahawalpur. Dr. Muhammad Farrukh Naveed, Kidney Centre, Bahawal Victoria Hospital, Bahawalpur.
Tabassum SA, Naveed MF, Barkat B, Saleem MS, Pansota MS.

Abstract:

Introduction: Standard size Percutaneous Nephrolithotomy (24Fr – 30Fr) is considered the gold standard treatment for the large renal stones. With the advancement in optics, miniature in equipment size and advancement in LASER, the size of the tract used for PCNL is becoming smaller and smaller. As the frequency of the LASER energy is being increased by the manufacturers, miniature surgery is becoming popular all the more. The dusting of the stone through LASER is becoming faster and the bigger stones are being treated with the help of miniature equipment. We present our experience with MicroPCNL in both adult and child age groups.

Methods: All patients undergoing MicroPCNL for renal calculi at our institution from July 2019 to October 2019 were reviewed. Demographics, surgical details and post-operative follow-up information were obtained to identify stone clearance rates and complications.

Results: MicroPCNL was performed in 10 renal units, 9 patients (Mean age: 23.8years). The mean stone diameter was 13mm (Range: 08-18mm). Bilateral microPCNL was done in 1 patient. Overall, 2 multiple stones and 8 single stones were treated. The mean anaesthesia duration for the procedure was 40minutes (Range: 20-60minutes). The size of the needles used was 4.7Fr and 8Fr. Initial 2 procedures were carried under fluoroscope guidance while the rest of were performed under ultrasound guidance. Out of 9 patients, 8(88.9%) were completely stone free after 2 weeks. Only 1 patient had residual stone fragment on ultrasound which was not visible on X-Ray. He became stone free after 1month duration without any additional procedure. There was no significant bleeding or sepsis encountered either during the operation or in the post-operative setting. No visual difficulty was experienced with high energy laser on fragmentation settings.

Conclusion: MicroPCNL is a safe effective and fast procedure for the treatment of small renal stones.

98 FREQUENCY OF RESIDUAL STONE AFTER PCNL VS OPEN SURGERY

Dr Muhammad Usman Khatti

Department of Urology Liaquat University of Medical and Health Science Jamshoro

Objective: Frequency of Residual Stone after PCNL VS Open Surgery.

Introduction: Since 2005 different guidelines recommended PCNL (Percutaneous Nephrolithotomy) is first procedure for the management of renal calculi of any size and any location. PCNL is first time done in 1976. New endourological techniques have led to treating renal calculi with more effective and less invasive methods, however open surgery is still routinely done in our areas, in our area peoples are thinking about residual stone in PCNL not in open surgery.

The aim of study is to see the success rate of stone clearance afer PCNL vs Open surgery

Material & method: We took 100 patients with renal stones of any size and location inducted our study from January till September 2019. age ranges from 20 to 50 years. Two groups were created having equal number of patients (N1 50 N2 50). (N1 PCNL N2 open Surgery) Variable inducted were ages, gender, group, intraoperative postoperative complication, duration of hospital stay and residual stones.

Results: Group N1 (PCNL) 05 patients out of 50 had residual stones and group N2 (Open Surgery) 03 patients having residual stones out of 50. Operative time was 45 ± 15 minutes in group N2 (Open Surgery) and 30 ± 15 in group N1 (PCNL). Post operative hospital stay 02 ± 01 in group N1 (PCNL) and 03 ± 1 in N2 (Open Surgery). The results of PCNL and open surgery are comparable in term of residual stones but at the cost of shorter hospital stay, good cosmetic outcome and it's also viable option for recurrent stones. However PCNL is valuable treatment option.

Conclusion: PCNL is a valid treatment option for renal stones having acceptable complication and stone free rate compare to open Surgery. However PCNL is shorter hospital stay and good cosmetic outcome.

Recommendation: We recommend that the stone size $>4\text{cm}$ with favorable renal anatomy like extra renal pelvis prefer to do open procedure would be cost effective.

Key words: PCNL, open Surgery renal stones, stone free rate.

99 TITLE:- URINARY STONE ANALYSIS IN OUR POPULATION AND RISK FACTORS.

Dr Muhammad Ali

Objectives:- The main objective of this study is to determine the most common type of urinary stone and risk factors of urolithiasis in our population.

Methods:- A cross-sectional survey was conducted on patients of urinary stones in our LUMHS Urology Department Jamshoro. Data were obtained by operating the patients by PCNL and open kidney surgery. We send these stones for chemical analysis and found the most common type of stone in our population. And also knowing the risk factors of stone formation such as family history and daily fluid intake by direct history of patients.

Results:- A total number of 100 patients operated of different ages. We found the most common stone in our population is Calcium Oxalate Monohydrate i.e. about 80 %. Second common stone we found is Ammonium Urates (uric acid) stones about 10 to 15%. Then only 5% common stone in our population is Calcium Phosphate (APATITE) stone. Risk factors for urinary stones are family history, dehydration, protein diet, obesity, hyperparathyroidism, metabolic syndrome, crohn's disease and intestinal resection.

Conclusion:- By knowing the most common type of stone we should advice the population to take some general and specific measures for prevention. General measures are drinking right amount of fluid every day, increase the amount of calcium in diet, reduce the weight, avoid protein and sodium diet. Specific measures are urine alkalinization to pH values between 6.2 and 6.8 with citrate or sodium bicarbonate and treat urinary tract infection if present by antibiotics.

100 TITLE: EFFICACY AND SAFETY OF PERCUTANEOUS NEPHROLITHOTOMY IN STAGHORN RENAL STONES. HASEEB ASLAM LIAQAT ALI, MUHAMMAD SHAHZAD, MUHAMMAD KAMRAN, NASIR ORAKZAI

ABSTRACT:

BACKGROUND: Urolithiasis is the most common ailment presenting to Urology clinics across the globe. Many stones can form Staghorn but struvite stones although which is although rare in west is second most common type of stag horn stone in Pakistan. The surgical management of Urolithiasis disease has evolved considerably over the past three decades. Specifically, the introduction and refinement of percutaneous and ureteroscopic access to the upper tracts, along with the nearly simultaneous development of both extracorporeal and intracorporeal lithotripsy had revolutionized the management of stag horn calculi. Being infective stones, the complete stone clearance with good safety profile is the main stay in management of struvite stones.

OBJECTIVE: To determine the efficacy and safety of Percutaneous Nephrolithotomy in management of struvite stag horn calculi.

METHODOLOGY: It is a descriptive study conducted in department of Urology at Institute of Kidney Diseases Peshawar from March 2012 till December 2017. Total of 330 patients, who underwent PCNL were included in the study by non-probability consecutive sampling technique. We included all patients above 13 years old irrespective of gender with Staghorn calculi. All the preoperative, per-operative and post-operative data was collected on structures proforma and was analyzed on SPSS.

RESULTS: Total of 230 patients were included in the study. 166 (72.2 %) were male while 64 (27.8 %) were female. Mean stone size was 28.8 with range of 18- 42. The mean age of the patients was 37 years Range (18 – 65). Right side was involved 136 patients (59.39%).

Conventional PCNL was performed in all cases. Mean operative time from positioning till recovery was 120 min (Range 60- 180 min). Single session complete stone clearance was achieved in 184 (80 %) patient. Pigtail ureteric stents were inserted in all the patients. Ancillary procedure was performed in 46 patients that included 30 patients with ESWL and 16 patients with flexible URS with holmium laser after first session of PCNL. Overall complete stone clearance after 6 weeks postoperatively was achieved in 211 patients (92 %). 30 patients (13%) required blood transfusion in immediate post-operative period. 15 patients (6.5%) had Urosepsis which was treated conservatively. No mortality was recorded.

CONCLUSION: PCNL is effective and safe in management of Staghorn renal stones

KEY WORDS: PCNL, Staghorn stones, UTI, Urolithiasis

101 LASER LITHOTRIPSY VERSUS PNEUMATIC LITHOTRIPSY IN URETERORENOSCOPY FOR MANAGEMENT OF URETERIC STONES: A COMPARATIVE STUDY (RANDOMIZED CONTROL TRIAL). Zain Khurshid (LGH)

INTRODUCTION: Urinary stone disease is a major health care problem due to its high prevalence and incidence. There are different therapeutic approaches for ureteral stones depending on stone size, location and anatomical variations of the urogenital tract. Two commonly used lithotripters in the urological fields are pneumatic and holmium laser (Ho: laser). Pneumatic lithotripsy (PL) has been the most widely used method of stone disintegration.

OBJECTIVE: The objective of this study is to compare laser lithotripsy & pneumatic lithotripsy in terms of percent stone clearance rate.

MATERIALS AND METHODS: Study Design: Randomized controlled trial

Settings: This study was carried out at the Department of Urology, Lahore General Hospital.

Duration of Study: Six months from the date of approval of synopsis. (March 10, 2017 till September 9, 2017)

METHODOLOGY: All admitted patients were investigated and diagnosed on the basis of history, clinical examination, baseline investigations and some specific investigations like urine culture & sensitivity, USG KUB, plain X-rays KUB, IVU and CT KUB if needed. All patients were randomly divided into 2 groups using lottery methods in either group-A (Laser Lithotripsy) or group-B (Pneumatic Lithotripsy). The relative efficacy of each lithotripsy intervention was evaluated in terms of percent stone clearance rate as per operational definition after the procedure. All the data was collected by researcher himself on prescribed proforma. Data was entered and analyzed by using the latest version of Statistical Packages for Social Sciences (SPSS) version 22.0 for windows.

RESULTS: The mean age of cases in this study was 47.80 ± 20.92 years while the mean age of cases in LL group was 49.08 ± 21.61 years and 46.52 ± 20.22 years. Overall there are 145(63.60%) male and 83(36.40%) female cases with male to female ratio as 1.74:1. In LL group the stone clearance rate was 111(97.4%) and in PL group the stone clearance rate was seen in 103(90.4%) cases with significantly higher clearance rate in LL group, p-value = 0.027.

CONCLUSION: According to the findings of this study we found significantly higher stone clearance in LL group. Sousing laser lithotripsy in future we can gain more patients' satisfaction with more stone clearance rate.

Keywords: Stone, management, laser therapy, Holmium laser lithotripsy, Pneumatic Lithotripsy

102 Determining the association between JJ stent colonization and symptomatic Urinary Tract Infection (UTI). Jai Kumar. (IHK)

Background and objective: JJ stents are an integral part of endourology. However, the rate of infections caused by JJ stents is frequently overlooked. This study aims at determining the association between JJ stent colonization and symptomatic Urinary Tract Infection (UTI). Jai Kumar. (IHK)

Methods: 44 patients who had their DJ stents inserted less than 2 months prior to removal date were enrolled. Out of these patients 10(22.7%) were having a known co-morbid: 7(15.9%) were suffering from HTN and 5(11.4%) were suffering from diabetes, while only 1(2.3%) was having Hepatitis. The midstream urine culture & sensitivity (c/s) before removal, as well as the c/s of the proximal and distal end of the JJ removed, were sent.

Results: 44 patients were reviewed, with 28(63.6%) males. Mean age was 38 ± 11 years and the median duration of DJ stent was 47(35-54) days. 6(13.6%) patients had a positive urine culture (UCS) before DJ insertion, while only 5(11.4%) patients had a positive UCS. UCS was positive in 29(65.9%) proximal JJ stents and 32(72.7%) in distal JJ stents. Stent isolates were more resistant to antibiotics than the organisms isolated in the urine c/s. Prox JJ stent isolates were more sensitive to Ceftazidime (38.6%), Ciprofloxacin (27.3%) and Gentamicin (27.3%). Distal JJ stent isolates were more sensitive to Ceftazidime (40.9%), Ciprofloxacin (29.5%) and Gentamicin (29.5%)

Conclusion: Urine cultures have a low potential to detect colonization of JJ stents. Furthermore, the organisms colonized on the JJ stent seem to be more resistant to antibiotics than the organism colonized from urine cultures. Ceftazidime, Ciprofloxacin and Gentamicin is recommended as an empirical treatment before cultures are obtained, in case of symptomatic UTI.

103 Comparison of ureteroscopic pneumatic lithotripsy and extracorporeal shock wave lithotripsy for the management of proximal ureteral stones: A single center experience. Dr Sheraz Ali (LUMHS)

Objective: To evaluate and compare the effectiveness of ureteroscopic (URS) pneumatic lithotripsy versus extracorporeal shock wave lithotripsy (ESWL) in the management of the proximal ureteral stones in terms of stone-free rates, complications and costs involved.

Material and methods: We included 200 patients in Group 1 who underwent ESWL and 200 patients in Group 2 who underwent URS intervention. We used Modulith SL X lithotripter 3rd generation Storz medical for ESWL group while Swiss pneumatic lithoclast was used to break the stone in the URS group. Stone-free status was defined as stone fragment of less than 4 mm on follow-up kidney ureter and bladder X-ray after 3 months of procedure. SPSS version 16 was used for statistical analysis.

Results: The mean age in ESWL and URS groups were 39.21 ± 13.36 , and 43.13 ± 13.65 years respectively. Mean stone size was 10.47 ± 3.7 mm (ESWL) and 13.6 ± 6.6 mm (URS). Stone-free rate after single procedure was (125/200 patients) 62.5% for ESWL and (168/200 patients) 84% for URS group ($p=0.001$). Complications included post procedure sepsis in 3 (1.5%) patient of ESWL, while 7 (3.5%) patients of URS groups. Steinstrasse was seen in 4 (2%) patients of ESWL group. No mortality was seen in both groups. Mean costs for ESWL were US $\$320 \pm 50$ while US $\$1100 \pm 150$ for URS group ($p=0.001$).

Conclusion: The stone-free rates after single procedure were significantly higher for the URS group while the complication rates were comparable in both groups. Treatment costs were significantly lower for the ESWL group.

Keywords: Complications, proximal ureter stone, stone-free rate, ESWL, URS

104 Compare Lithoclast with holmium:YAG laser lithotripsy in proximal ureteral calculi fragmentation

Dr Muhammad Rashid LNH –Short Abstract

OBJECTIVES: The purpose of the present study is to compare Lithoclast with holmium:YAG laser lithotripsy in proximal ureteral calculi fragmentation.

METHODS: We compare two groups of proximal ureteric stone one is treated with Laser lithotripsy and other is with Pneumatic lithoclast.

CONCLUSIONS: It seems that Ho:YAG laser has advantages over pneumatic lithotripsy in high efficacy of stone fragmentation and a slightly low-retrograde migration in the treatment of ureteral stones. Overall, stone-free rate in Ho:YAG laser lithotripsy is better than pneumatic lithotripsy.

105 Ammonium urate urinary stones, A case series.

Sharjeel saulat, Sana Tariq, Saeed uddin Qadri, Jahanzaib shaikh

INTRODUCTION: Ammonium acid urate is a rare renal stone formation, with approximately 1% occurrence of total urinary stone patients. The known reason behind this specific stone composition is dehydration so far, induced vomiting to stop weight gain, excessive exercise or exertion and strict diet control to maintain required weight results in Ammonium urate renal stones.

METHODOLOGY: An observational, single centred case series of 15 patients with ammonium urate stone analysis are included in this study with a detailed interview about their diet pattern, fluid intake, dehydration, weight consciousness and other related risk factors. A questionnaire has been filled for investigations about presenting complaints and follow-ups.

RESULTS: In 15 patients, 11 (73.3%) were males and 04 (26.7%) were females with a mean age of 12.6 ± 18.1 . Mean stone size is 1.5 ± 0.9 cms, dietary pattern of the patients was found adequate in 11 (73.3%) while non-adequate in 04 (26.7%) similarly fluid intake was sufficient in 09 (60%) of the patients and 6 (40%) said they don't take enough amount of fluids.

DISCUSSION: There can be some hidden risk factors for ammonium urate stone formation in the urinary tract of humans except already been stated in previous studies that NH₄U stone formation is mainly dependent on dehydration. Ammonium urate stone formation prevalence is higher in underdeveloped countries as compared to developed areas of the world, as per the results, excessive exertion without sufficient fluid intake or mineral intake could be a reason for the Ammonium urate stone formation. Pathophysiological aspects of this rare renal stone composition are not simple.

KEYWORDS: Renal stones, Ammonium acid urate, rare stone, Dehydration

106 COMPARATIVE ANALYSIS OF STONE CLEARANCE RATE BY PERCUTANEOUS NEPHROLITHOTOMY (PCNL) UNDER ULTRASOUND AND FLUOROSCOPIC GUIDANCE

Hafiz Haider Ali, Ghulam Mahboob Subhani, Muhammad Irfan Munir, Muhammad Akmal

ABSTRACT: Introduction: Urolithiasis has plagued mankind since ancient times. The life time prevalence of kidney stones is approximately 10% worldwide and incidence rate have been increasing in many countries in the recent years. For the removal of staghorn and large renal stones Percutaneous Nephrolithotomy (PCNL) performed under fluoroscopic or ultrasound guidance is the treatment of choice and is the minimally invasive method of removing kidney stones since 1976. Objective: To determine the stone clearance rate by percutaneous nephrolithotomy (PCNL) under ultrasound and fluoroscopic guidance. Study Design: Randomized control trial. Sampling Technique: Non-probability consecutive sampling. Duration of study: six months. Setting of study: Department of Urology & Kidney transplantation, Allied hospital and Faisalabad DHQ hospital, Faisalabad Medical University (FMU), Faisalabad. Methodology: One surgical team performed all the operations. An informed consent was taken from all the cases before the surgery. Under general anesthesia half of the patients undergone PCNL under ultrasound guidance and other half of the patients undergone PCNL under fluoroscopic guidance as standard procedure.

Results: The average complete stone clearance by PCNL performed under fluoroscopic guidance is 78% while stone clearance by PCNL performed under ultrasound guidance is 75%. 13.3% patients under study had to undergo post op ESWL in case of ultrasound guided PCNL while 10% in case of fluoroscopic guided PCNL, 3.3% patients have to perform redo PCNL in case of ultrasound guided PCNL while 1.6% in case of fluoroscopic guided PCNL, no patient developed pleural effusion in case of ultrasound guided PCNL while 1.6% in case of fluoroscopic guided PCNL and 10% patients developed postoperative fever in case of ultrasound guided PCNL while 11.6% in case of fluoroscopic guided PCNL. Conclusion: The study shows that there is significant stone clearance rate by PCNL performed under Ultrasound or fluoroscopic guidance and both the modalities can be used in PCNL for renal stone removal. However renal stone clearance rate was better in terms of fluoroscopic guided PCNL cases in our setup but this difference is not statistically significant.

107 RELATION OF OBSTRUCTION IN POST DJ STENT PROCEDURE WITH DURATION AND INFECTION

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BACKGROUND: Stent blockage is most common problem that urologist faces after Double J(JJ) stent insertion, no definite cause of blockage of JJ stent were found, it is suspected that JJ stent blockage mostly occur secondary to bacterial colonization, however this is not approved till date.

OBJECTIVE: To study the association of bacterial colonization of JJ stent and incidence of blockage among patients with urinary tract calculi(utc).

METHODOLOGY: A prospective study at urology department of Dr Ziauddin Hospital from May- Nov 2019. 219 patient meeting eligibility criteria were included in this study at the time of JJ removal. Upper tip of JJ stent sent for culture and pre JJ removal U/S done to check for hydronephrosis(HN). A positive correlation will be established between the stent blockage evident by presence of HN and DJ stent culture. Shapiro wilk test, fisher exact test and chi square test will be used as appropriate. P-value ≤ 0.05 will be considered significant.

RESULTS: The mean age stood at 38 (SD \pm 9.1). The total incidence of bacterial colonization was 61.64%, with the commonest microorganisms being Enterococci (54.8%), followed by E. Coli, Gram Positive Rods, Pseudomonas Aeruginosa etc. Stratification revealed that among the patients with a blocked JJ stent, 83% had bacterial colonization and 17% did not.

Conclusion: we concluded bacterial colonization is a frequent occurrence among patients stented for utc, however, no significant association was found between bacterial colonization and incidence of blockage. However, antibiotic prophylaxis should continue to be practiced to avoid any undue complication.

KEYWORDS:Urinary Tract Calculi, Bacterial Colonization, Double J Stent, Stent Blockage & Hydronephrosis.

108 Is Hounsfield unit density measured on CT scan of pyelogram affects ESWL outcome

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BACKGROUND: Extracorporeal shockwave lithotripsy (ESWL) is non-invasive treatment for renal stones and outcome depends on size, site, composition and the presence of obstruction or infection. C.T KUB may provide data pertaining to the stone density and fragility against ESWL, predicting the outcome.

Although there is no appropriate data available in our region to prove stone density and ESWL outcome.

OBJECTIVE: To evaluate outcome of treatment by ESWL depending on stone density measured by CT KUB in Hounsfield units (HU).

METHODOLOGY: A prospective case series clinical trial was conducted at urology department of Dr Ziauddin Hospital from April- Nov. 2019. 150 patient meeting eligibility criteria were included, results obtained from C.T KUB, operative notes and the eventual treatment outcome were recorded and analysed using SPSS v. 21.0.

RESULT: The mean age stood at 34 (SD \pm 9.5) The Overall renal ESWL success rate was 93.33%. The ESWL success rate was significantly higher for stone \leq 15 mm than larger stones (97.62% versus 83.33%; $p=0.041$). ESWL was effective in 47 of 48 (97.92%) cases with stone density $<$ 650 HU and 47 of 52 (90.38%) 44 of 51 (86.27%) with stone density \geq 850 HU ($p=0.023$). The stones with density values $>$ 850 HU needed more energy, shockwaves than stones with a density values $<$ 850 HU ($p<0.002$).

CONCLUSIONS: The use of pre-ESWL CT scan of pyelogram will allow predicting stone fragility and should be considered when making decisions regarding the use of ESWL.

KEYWORDS: Renal and upper ureteric stone, CT scan of pyelogram, Hounsfield unit ESWL.

109 Forgotten Ureteric Stent (FUS): Complication, Management and Prevention: Aziz UR Rahman, Mian Naushad Ali Kakakhel, Muhammad Naseem.
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Objective:The objective of this study is to emphasis on the preventive measures for a forgotten stent, which include proper counseling of the patient about the presence of a stent, and the provision of a special card given to patient upon their discharge from hospital, with clear instructions about the date of removal of stent. Additionally, a “Stent Tracker” application can be installed on mobile devices and computers. The encrypted and password-protected information will then be accessible from any device and provide information about each procedure, stent placement and removal dates.

Materials and Methods:This is a single-institution retrospective analysis of 20 patients who had presented to our center, Northwest General hospital and Research center, Peshawar with forgotten Ureteric stent. Plain-film radiography was used to evaluate encrustation, stone burden, and fragmentation of the stents. Stent encrustation and associated stone burden were evaluated using non-contrast enhanced stone protocol computerised tomography (CT).

Results: Complication:The mean patient age was 35 years, male to female ratio 12:2 and the mean duration of stents in urinary system was 24.2 months (7 months to 5 years). The stent were complicated in 10 patients and 10 patients had uncomplicated stents. The stents were severely calcified and encrusted in 6 patients. The stents were spontaneously fragmented in three pieces in 2 patients.

MANAGEMENT: The stents were removed by Cystoscopy in all 10 uncomplicated cases as an outpatient procedure. In 6 patients of severely calcified and encrusted stents. The retrograde stent removal could be done in 4 patients while stent got broken in proximal ureter in 2 cases when they were being removed. In these 2 cases the stents were removed by mini PCNL. The PCNL and stent removal was done in 2 patients who had large stone at the upper end of stent in renal pelvis. In 2 patients who had large stone formation at lower end (in bladder), stones were fragmented by URS and by ESWL. In Two cases of spontaneous fragmented stent, URS and mini PCNL done

Conclusions:The management of complicated forgotten ureteral stents need careful endourological techniques and lithotripsy. Stent related complications can be fatal for the patient or indirectly cause death because of complications related to operative intervention. The best treatment that remains is prevention of this complication and to achieve this important point we should follow the preventive measures described

Keywords: Forgotten stent; prevention; Urolithiasis; complication; Management

110 Comparison of Extracorporeal Shockwave Lithotripsy (ESWL) vs Ureterorenoscopy (URS) in the Treatment of Large (10mm-15mm) Proximal Ureteric Stones

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Introduction:

Urolithiasis is one of the most common urological diseases prevalent in Pakistan. This study is designed to compare Extracorporeal shock wave lithotripsy (ESWL) and ureterorenoscopy (URS) in treating the proximal ureteric stone. Ureteric stone is a common disease of urinary system in Pakistan. Despite ongoing success in endourological stone treatment, question about optimal management of proximal ureteric stone still remains debatable amongst urologist; therefore this study is being performed to find an appropriate and effective tool to treat ureteric stones.

Objective: To compare the efficacy of extracorporeal shockwave lithotripsy (ESWL) and ureterorenoscopy (URS) as a first line treatment of patient with large proximal ureteric stone (10-15mm).

Subjects and Methods: A total of 60 patients with solitary, unilateral, radio opaque, proximal ureteric stone shown by IVU were included in this study. Randomly 30 patients were treated with ESWL and 30 were treated with URS. Patients in both groups were followed up after 3 weeks with x-ray KUB. All data was collected on computerized pre-structured proforma.

Results:The average age of the patients was 27.58 ± 6.20 years. There were 38(63.3%) male and 22(36.7%) female. Efficacy of URS treatment was significantly high as compare to ESWL [93.33% vs. 60%; p 0.002].

Conclusion: The results of our study support the hypothesis that URS is more effective for proximal ureteric stone clearance as compare to ESWL.

111 Comparison between Extracorporeal Shockwave Lithotripsy and Ureteroscopy as a First Line Treatment of Patient with Distal Ureteric Stone

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Introduction

Ureteric stone is a common disease of urinary system in Pakistan and a major problem for tertiary care hospital. Currently different treatment options for ureteral stones Medical Expulsive Therapy shockwave lithotripsy (MET), extracorporeal (ESWL), ureterorenoscopy (URS) and intracorporeal lithotripsy with pneumatic or laser device, and rarely laparoscopic or open surgery are used for stone management.

Objective: To compare the efficacy of extracorporeal shockwave lithotripsy and ureteroscopy as a first line treatment of patient with distal ureteric stone.

Subjects and methods : 106 patients with unilateral, solitary and distal ureteric stone were randomizes in two groups. One group treated with ESWL and another with URS. Post operatively final outcome of procedures was assessed after 3 months in terms of residual stone using X-ray KUB and ultrasound.

Results: Out of 106 patients, majority were females (58%).Overall the mean age of population was 41.9 ± 10.4 years and the mean stone size was 13.1 ± 4.3 mm. Both the groups were almost comparable with respect to age and size of stones. There was a significant difference in final outcome of both the procedures, as the residual stones were more in ESWL then URS group i.e. 62% Vs. 40% ($p=0.02$).

Conclusion: Ureteric stone is a very common problem in Pakistan. Out of the above two procedures we found that URS is better than ESWL to remove distal ureteric stone.

112 Retrograde Intra Renal Surgery (RIRS) For Renal Stone In A Solitary Functioning Kidney Of Horseshoe Deformity

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Abstract: A 42 year old male, resident of district Sargodha, presented in outpatient clinic with complain of left flank pain for two years and repeated episodes of calculus anuria despite interventions. Patient was referred to us from a tertiary care center of endo-urology. This patient had a solitary kidney with horseshoe deformity. And suffering from chronic kidney disease with baseline creatinine of 2.7.

Following optimization and management with culture specific antibiotics, patient was managed by retrograde intra renal surgery (RIRS). Stone clearance was achieved and double j stent was placed. Postop recovery of the patient was uneventful and patient maintained his base line creatinine levels. Double j stent was removed 4 weeks later and patient remained asymptomatic. **Conclusion:** Horseshoe kidney poses challenge for stone clearance in both invasive and non-invasive management of renal stones. Retrograde intra renal surgery is safe and effective method of stone management in such cases to cope with the challenging anatomy.

Keyword: Calculus anuria, Retrograde intra renal surgery, Renal stone, Solitary function kidney, Horseshoe deformity

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