

# **ABSTRACTS**

## Knowledge of Sexually Transmitted Diseases Among Adults Living in Saudi Arabia: A National Cross-Sectional Study

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Sexually transmitted diseases (STDs) remain one of the most important health challenges in not only developing countries but also developed countries. Aim: To evaluate the knowledge of STDs among adults enrolled in Saudi Arabia.

**Methods:** This is a cross-sectional study that enrolls adult individuals living in different regions of Saudi Arabia, both gender male and female. STD knowledge scores (STDs-KSs) were calculated using a predesigned and validated Arabic STD knowledge questionnaire with 27 items adapted from previously developed questionnaires

**Result:** In a study with 1706 participants (94.7% response rate), the gender distribution was 825 males (48%) and 881 females (52%). Most respondents were aged 16-23 (43%), followed by 24-31 (27%) and 32-39 (14%) years. Geographically, 71% were from the central region, with significant gender differences in regional distribution ( $p < 0.0001$ ). the STD knowledge scores (STD-KS) showed no significant association with age. However, gender had a significant association ( $p < 0.0001$ ), with males having slightly lower scores ( $6.5 \pm 3.0$ ) than females ( $6.8 \pm 3.2$ ). Marital status showed marginal significance ( $p = 0.042$ ), and educational status had a significant association ( $p < 0.0001$ ) with STD-KS.

**conclusion:** This study highlights the significance of demographic factors in STD knowledge. It emphasizes the need for targeted interventions considering age, gender, marital status, education, and geography to enhance STD awareness and prevention. These findings can inform public health policies and programs. Future research should assess tailored interventions and other factors impacting STD knowledge for better sexual health outcomes.

## Pattern of PDE5 inhibitors usage and its socio-demographic factors: Saudi local study

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**Aim:** To identify Pattern of PDE5 inhibitors usage and its socio-demographic factors in Saudi Arabia population.

**Methods:** A Cross sectional study conducted in Saudi Arabia through official electronic platforms among PDE5i users, from April until August 2023. We included All Arabic speaking participants, aged - 18 years suspected PDE5i medication users.

**Results:** In all, 294 men participated in the survey with 125 (42.51%) reporting use of PDE5i. Estimated response rate is 67% among suspected PED5i users, young adults aged 20 to 40 years old representing the bulk of correspondents (49%), The majority were married and took PDE5i over-the-counter from local pharmacies aimed to improve sexual performance without impotence. Among 125 PDE5i users; Snafi and Cilais (Tadalafil) were the most preferred medications with the majority reported to have used it before, 16.4% and 15.9% respectively. In Other Hand, Erecta counted to be least used with only 2.2%.Snafi was the most used and reported to be one of the least developing side effects 28.3% compared to others. However, Herox considered the least reporting side effect with only 15.4% but not commonly used. In Contrary, Erecta has a less favorable choice with the least used and most side effects reported 50%.

**Conclusion:** PDE5i are frequently used by the Saudi male population and most of them appear to take it without medical prescription . This could result in misuse and a public health problem. So it might suggest that strict regulations and continuous surveillance of the pharmaceuticals market are required.

## Erectile Dysfunction after COVID-19 Infection in Egyptian Individuals: An Observational Longitudinal Study.

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### **Aim:**

To estimate the prevalence of post COVID-19 Erectile dysfunction, evaluate the changes of erectile function after COVID-19 recovery at 3 and 6 months, and to find the possible etiologies of this association.

### **METHODS:**

A total of 200 eligible patients had participated and were evaluated at baseline, 3 and 6 months follow-up after recovery by using IIEF-5 score (The Arabic version) to evaluate their erectile function, GAD-7 score (The Arabic version) to evaluate their mental health and full hormonal profile (serum total and free testosterone, serum FSH, LH, and serum Estradiol).

### **RESULTS:**

The percentage of ED after COVID-19 was 47%, 35.5 %, and 34.6 % at baseline, 3- and 6- months follow up, respectively. The mean IIEF-5 score was (20.67±3.89) at baseline, which significantly decreased at 3 (21.88 ± 3.9) and 6 (22.16 ±3.8) months (P value = 0.002, 0.001 respectively). The mean GAD-7 score was high at baseline (4.56 ±4.03) and significantly reduced to (2.75 ±2.97) and (2.2 ±2.47) at 3 and 6-months follow-up (P value = 0.001). The total Testosterone at baseline was (6.04 ± 2.61 ng/ml compared to (8.91 ± 3.52 ng/ml) at 3-months follow up (P value =

## Prevalence, risk factors, and awareness of erectile dysfunction in the Saudi Arabia population

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### **Aim**

This study aimed to determine the prevalence, risk factors, and awareness of ED and its management in the population of Saudi Arabia.

### **Subject and methods:**

This community-based, cross-sectional study was conducted among adult Saudi males in all five regions of Saudi Arabia (Central, Eastern, Western, Southern, and Northern). A self-administered questionnaire was distributed among participants using an online survey. The questionnaire includes socio-demographic data (i.e., age, region, marital status, education), medical history, and Erectile Function (IIEF-5) as a diagnostic tool for ED.

### **Results:**

In total, 924 men took part. 55.4% were aged between 18 to 25 years old, and nearly two-thirds (64.4%) were single. The Internet was the most common source of ED information (53.6%). Based on respondents' knowledge, the most common risk factor of ED was depression (60.8%), while the most common treatment option was lifestyle modification (70.8%). The prevalence of ED among all Saudi men including in the study was 21.4% . and ED in married men in this study was 46 %. Independent risk factors for ED include, being an employee, and Other Risks.

### **Conclusion:**

Erectile dysfunction was common among the Saudi male population. ED was more prevalent among older men with associated chronic diseases and had elevated body mass index. Having been Hypertension, diabetes, and having a previous perineum operation and all shows significant p value, were identified as the significant independent risk factors for ED. Longitudinal studies are needed to determine the cause and effect of the recognized risk factors for ED among men.

**The Three-glass test yields excellent results for diagnosis of chronic bacterial prostatitis. Study from a Pakistani tertiary care hospital**

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**Background:** Prostatitis is a common disorder affecting 10 % to 14 % of men. Chronic prostatitis is a bothersome disease affecting young, middle-aged and elderly-men. Routine cultures often fail to localise the source of infection. Although the four glass test is considered for evaluating CP, the three-glass urine test can also be performed. This test yields excellent results.

**Methods:** one hundred and forty-four cases of Pakistani origin were enrolled. A three-glass test was performed, and the samples were labelled as VBI, VB2, and VB3+ EPS. Qualitative culture and drug sensitivity test were performed for 16 antimicrobials.

**Results:** Samples from 127 patients (Mage = 37 years) were analyzed. Chronic bacterial prostatitis was identified in 81(63.77%) patients.

**Conclusions:** In more than half of the cases examined in this study, the bacteria were localised to the prostate.

## Varicocele outcomes among patients with azoospermia and severe oligasthenoteratozoospermia

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Varicocele is a reversible cause of male infertility. However, there are conflicting data available concerning the benefit of varicocele repair for patients with nonobstructive azoospermia (NOA) and severe oligoasthenoteratozoospermia (OAT). To address the benefit of varicolectomy in patients with severe OAT and NOA with regard to their semen parameters and surgical sperm retrieval rate in those who underwent testicular sperm extraction (TESE) or testicular sperm aspiration (TESA). This retrospective cohort study was conducted on a sample of 13 patients diagnosed with NOA and severe OAT who underwent varicolectomy for infertility treatment with no prespecified exclusion criteria. Thirteen patients were enrolled. Five patients were diagnosed with NOA; eight were diagnosed with severe OAT. For improvements in the semen parameters postoperatively, the semen concentration of all patients was significantly increased compared to the preoperative concentration ( $3.59 \pm 10.0.8$  vs.  $0.25 \pm 0.31$ ,  $P = 0.02$ ) and the remaining parameters were unchanged. Regarding sperm retrieval, three patients underwent TESE and two patients underwent TESA, in which all had positive results. Varicocele repair was found to improve the semen parameters in patients with NOA and severe OAT and produced a successful surgical sperm retrieval rate in all patients who underwent TESA or TESE

## Ageing-associated potential metabolomic targets of spermatozoa for early clinical diagnostics and fertility rescue.

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**Aim and Background:** Ageing in men is a significant factor affecting fertility due to changes in micro- and macro-attributes of semen. Lifestyles changes have led to delayed childbearing and increasing number of advanced age couples seeking fertility treatment. Information on age-related functional genomics (metabolomics) on spermatozoa is limited. This study characterized age-related metabolomic changes in spermatozoa for potential diagnostic values.

**Methods:** Eighteen fertile Arab/Saudi men constituting a young adult group (YAG; 21–30 years, n=6), late adult group (LAG; 31–40 years, n=7), and advanced age group (AAG; 40–51 years, n=5) comprised this study. The sperm samples were gradient purified and subjected to metabolomic analysis using LC-MS/MS. Data were processed using XCMS, metabolites were identified using Human Metabolome Database (HMDB), and statistical analyses were performed using MetaboAnalyst.

**Results:** A total of 380 metabolites were identified in sperms across three groups. Of these 130 metabolites showed significant ( $P < 0.05$ ) differences among three groups. Among top 10 significantly altered metabolites, 6 metabolites were up-regulated, and 4 metabolites were down-regulated in AAG compared to YAG and LAG (Figure 1). These 10 metabolites are associated with sperm developmental and fertility processes such as spermatogenesis, cellular organelle processes, energy metabolism, capacitation, etc.

**Conclusions:** Ageing is associated with dynamic changes in metabolomic profile of spermatozoa impacting sperm development and function. The altered metabolic processes are potential targets for early clinical diagnostics and fertility rescue.

**Acknowledgement:** The authors extend their appreciation to the Deputyship for Research & Innovation, Ministry of Education in Saudi Arabia.

## Testicular sperm extraction combined with intracytoplasmic sperm injection in the treatment of men with persistent azoospermia post-chemotherapy, The KFSH&RC 10 years experience

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**Background:** The detrimental effects of chemotherapy on male reproductive health, particularly spermatogenesis and ejaculation, are widely acknowledged, especially among young men who have yet to pursue family planning. Persistent azoospermia following chemotherapy signifies sterility in men, emphasizing the significance of cryopreservation for individuals undergoing gonadotoxic therapy due to cancer. This study aims to examine the factors influencing successful sperm retrieval through mTESE-ICSI in men experiencing prolonged azoospermia after chemotherapy.

**Methods:** This retrospective study was conducted at King Faisal Specialist Hospital & Research Centre in Riyadh. from October 2013 to September 2023. involving 54 patients underwent post-chemotherapy treatment and subsequent microscopic testicular sperm extraction procedures. Data primarily from comprehensive chart reviews in medical records, encompassing patient demographics, treatment histories, hormonal profiles, intervals between treatment and surgery, mTESE-ICSI outcomes, and encountered cancer types. Statistical analyses, including descriptive analysis, t-tests, chi-square tests, and binary logistic regression tests, were utilized to evaluate relationships between predictor variables and outcomes.

**Results:** Analysis of 54 post-chemotherapy patients retrospectively indicates positive sperm retrieval in 25.9%, with the type of cancer significantly influencing outcomes. Patients with leukemia, sarcoma, and lymphoma exhibited varying rates of success. However, factors such as age and hormonal levels did not significantly impact sperm retrieval.

**Conclusion:** The study underscores the importance of cryopreservation for reproductive-age patients undergoing chemotherapy and highlights the potential of mTESE-ICSI in addressing persistent azoospermia. Larger datasets in further studies are recommended to explore subgroups benefiting from or encountering challenges with TESE-ICSI.

Does total Testosterone matches the free fraction in infertile males

AlNumi Mussa<sup>1</sup>, Tala AlAfraa<sup>2</sup>, Abdulamjeed, AlThobaity<sup>3</sup>, Khaled Bedaiwi<sup>4</sup>, Khalaf AlShamrani<sup>5</sup>

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**Objective:**

To investigate the total Testosterone and the free fraction in infertile males, how far the match occur?

**Method:**

A total of 165 infertile males, 2021-2023 with total testosterone < 60% the upper limit were analyzed. Parameters study were Age, Serum total testosterone (TT) (9.9-29 mmol/L), Free testosterone index (FTI) (33.2-106), FSH (1.55-12.4 iu/L), LH (1.7-8.6 iu/L), prolactin (86-324 miu/L).

**Result:**

3 groups were identified

Group A of 54 patients (31%) and two none matching groups, Group B 29 patients (24%), Group C 92 patients (52%).

The difference percentages between the T.T and the FTI as follows Group A showed a mean of 1% range (1-5%), Group B of 35% range (20-68%) Group C of 12% range (10-17%). parameters including group A, B, C respectively Age ranged (20-38Y) mean of 33y, Group B (20-36y) mean of 31y, Group C (24-37y) mean of 26y. T.T (nmol/L) (4.3-16.5) mean of 9.7 (33%), Group B (4.4-15.5) mean 11.2 (38.6%), Group C (4.4-14.5) mean 10.24 (33.3%) Group A FTI (7.8-62.5) mean 37 (35%) Group B (64-102) mean 77.16 (72.7%) Group C (12.57-60.8) mean 42.9 (40.5%). Group A LH (1.5- 11.5) mean 3.2, Group B (1.7-9.7) mean (5.4). Group C (1.9-12.1) mean 6.1. Group A FSH = (1.2-11.8) mean 5.1, Group B (1.4-9.7) mean 5.4, Group C (1.9-12.1) mean 6.1. Prolactin (99.460) mean (231), Group B (91-324) mean 183, Group C (96-520) mean 232.

p-value were insignificant.

**Conclusion:**

A precise Testosterone hormonal support in infertile male entails a acknowledgment of the free Testosterone. 25% of the patients might not need such support.

## Uses of hemoglobin A1c (HbA1c) levels as a predictor for post penile prosthesis infection in diabetic men

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fellow of andrology and male infertility, fellow of andrology and male infertility, consultant of andrology and male infertility professor and consultant of Andrology and male infertility

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**Background and Objective:** Implanting a penile prosthesis is a successful therapy for erectile dysfunction. However, men with diabetes have an increased risk of prosthesis infections due to poorly managed blood glucose. Higher hemoglobin A1c (HbA1c) levels have been linked to higher incidence of surgical site infections. To determine the ideal HbA1c goal range to reduce the risk of infection after penile prosthesis implantation in men with diabetes.

**Materials and Methods:** This was a retrospective cohort study of 148 diabetic men who underwent penile prosthesis implantation from 2010-2023. Patients were divided into two groups based on HbA1c levels - group 1 with HbA1c <8% and group 2 with HbA1c ≥8%. The primary outcome was prosthesis infection one year after surgery. Multivariate logistic regression was used to analyze the association between HbA1c and infection risk.

**Results:** When categorizing HbA1C levels as “above 8%” and “below 8%” and comparing them with postoperative infection, all postoperative complications, among different types of prostheses, there were no statistical difference found (p values are calculated 0.33, 0.713, and 0.463, in order).

**Conclusion:** HbA1c level alone may not adequately predict surgical risks or prosthesis selection for penile prosthesis surgery in diabetic men. Other factors like patients co-morbidities, immune status and surgical details could be more influential. Larger prospective studies are needed to further elucidate the relationships.

## **Surgical Management for Complicated Penile Prosthesis Case With Tunica Albugina Defect, Tertiary Hospital Experience**

**Said Kattan<sup>1</sup>, Naif Alhathal<sup>2</sup>, Faisal Alzahrani<sup>3</sup>, Mohammed Kattan<sup>4</sup>, AbdulAziz Almalki<sup>5</sup>**

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**Introduction:** Penile prosthesis (PP) surgery represents the end-stage treatment for erectile dysfunction with a high satisfaction rate and a low complication profile. However, the complications of surgery can have devastating consequences on a patient's quality of life and satisfaction including infection, prosthesis malfunction, penile corporal perforation and penile length loss.

**Aim:** Describing of surgical technique in a challenging case in which the patient underwent PP insertion followed by removal due to bacterial infection four times complicated eventually with left distal corporal perforation. The patient was referred with a complaint of penile deviation, Glans hyper-mobility and un-satisfaction for him and his partner.

-Case report of 54 year old diabetic male patient. Intra-operatively, left extended corporotomy was made, dilatation was carried on up to 10 french and we noticed a defect in the left Tunica Albuginea distally about 3cm, on lateral aspect .

-We agreed to implant one rod of malleable PP size 9.5 mm diameter

-Then we decided to apply Hemostatic and Sealing Agents ( TachoSil Patch ) supported by a layer of Buck's fascia. Figure1,2-After placement of the device, the glans was hyper-mobile. Thence, Glanulopexy was done. Figure3,4

**Discussion:** We discuss the important considerations for preoperative counseling and intra-operative pearls.

-The surgeon's choice of what graft to use for the tunica repair is essential for ensuring good outcomes.

**Conclusion:** In treating patients with Tunica loss we found TachoSil could represent a valuable option for grafting, considering its advantages in operative time and cost.

## SALVAGE PENILE PROSTHESIS SURGERY, UNIQUE SURGICAL TECHNIQUE. INSTITUTIONAL Experience

**Said Kattan<sup>1</sup>, Naif Alhathal<sup>2</sup>, Faisal Alzahrani<sup>3</sup>, Saleh Alhumaid<sup>4</sup>, Mohammad Kattan<sup>5</sup>, AbdulAziz Almalki<sup>6</sup>**

King Faisal Specialist Hospital & Research Center, King Faisal Specialist Hospital & Research Center, Albaha University, King Faisal Specialist Hospital & Research Center, King Faisal Specialist Hospital & Research Center, King AbdulAziz Specialist Hospital

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### **Introduction**

Penile implants are a mainstay for the surgical correction of erectile dysfunction with reliable outcomes and durable patient satisfaction.

Salvage procedure was established to avoid complete removal and staged replacement. Overall, the success rate is up to 84%

### **Aim**

We evaluated the Salvage penile prosthetic surgery cases done in our tertiary center for 11years and introduce our unique surgical technique that we believe it resulted in reduction of the re-infection rate

### **Method:**

retrospective

urgical Technique

All the cases with infected implants who fulfill the criteria of salvage penile prosthesis surgery were approached with the same strategy (3) After copious irrigation, the surgical capsule ( biofilm ) covering the infected implant is peeled off totally using Rossello dilator and/or curettage tools till reaching to the Tunica Albuginea layer. After all, copious irrigation is repeated before insertion of the new penile implant.

### **Results**

Re-infection was documented in 2 (8.3%) cases out of 24 (91.7%) successful Salvage procedures.

### **Discussion**

Medical implants are recognized as foreign bodies . After applying the implants, the blood covers the surface then physiologic inflammatory response results in fibrous capsule formation around the foreign body Mulcahy described the washing solution for the cavities with a series of antiseptic solutions and replacement of a new prosthesis.

**Conclusion:** During salvage penile prosthesis surgery, the technique of removing the surgical capsule (biofilm) covering the infected implant accompanied with copious irrigation using antiseptic solution is a promising step that would help in decreasing the reinfection rate (91.7%).

## Evaluating ChatGPT and GPT-4 as Information Sources Against American Urological Association Self-Assessment Study Programs: A Comparative Accuracy Analysis

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**AIM:** There is an increasing integration of Large Language Models (LLMs) like ChatGPT and GPT-4 in medicine, prompting a need to assess their reliability. Our aim is to appraise the efficacy of ChatGPT and GPT-4 in answering urology-related questions from the AUA's SASP to check their reliability as information resources.

**METHOD:** 750 SASP questions from the years 2019 to 2023, were collected using an open book approach. For answering the questions, both OpenAI's ChatGPT 3.5 and GPT-4 were utilized, with the chat history feature disabled. No additional plug-ins or feedback loops were allowed. Images replaced with concise descriptions. We generated 3 separate responses for each question to form a consensus for the final answer. These answers were then compared to the official SASP answer key. Data analysis involved descriptive statistics and hypothesis testing using Pearson Chi-square and Fisher's exact tests.

**RESULT:** GPT-4 outperformed ChatGPT with 56.5% correct answers compared to 36.3%. Most of the correct responses by GPT-4 (77.6%) and ChatGPT (77.9%) were consistently regenerated in three attempts ( $p=0.000$ , and  $0.001$ ). The year of the test or difficulty did not affect the accuracy of the answers significantly. GPT-4 was particularly more accurate in categories like cancer, sexual dysfunction, and UTI ( $p=0.028$ ). In comparing responses, both AI systems were correct for 29.7% of questions with GPT-4 alone being correct in 26.8%.

**CONCLUSION:** The evaluated LLM demonstrates moderate reliability in providing medical information regarding urological issues. GPT-4 exhibits better performance compared to ChatGPT, particularly when it consistently reproduces same correct response.

## Does total Testosterone matches the free fraction in young infertile males

Mussa AlNumi<sup>1</sup>,Tala AlAfraa<sup>2</sup>,Abdulamjeed AlThobaity<sup>3</sup>,Khaled Bedaiwi<sup>4</sup>,Khalaf Alshamrani<sup>5</sup>

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### Objective:

To investigate the total Testosterone and the free fraction in infertile males,how far the match occur?

### Method:

A total of 165 infertile males,2021-2023 with total testosterone<60% the upper limit were analyzed. Parameters study were Age, Serum total testosterone(TT)(9.9-29 mmol/L),Free testosterone index(FTI)(33.2-106),FSH(1.55-12.4iuL),LH(1.7-8.6iuL),prolactin(86-324 miu/L).

### Result:

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The difference percentages between the T.T and the FTI as follows GroupA showed a mean of 1% range (1-5 %), GroupB of 35% range (20-68%) GroupC of 12% range (10-17%). parameters including group A,B,C respectively Age ranged (20-38Y) mean of 33y, GroupB (20-36y) mean of 31y, GroupC(24-37y) mean of 26y. T.T (nmol/L)(4.3-16.5) mean of 9.7 (33%),GroupB (4.4-15.5) mean 11.2(38.6%) ,GroupC (4.4-14.5) mean 10.24(33.3%) GroupA FTI (7.8-62.5) mean 37 (35%) GroupB (64-102) mean 77.16(72.7%) GroupC (12.57-60.8) mean 42.9(40.5 %).GroupA LH(1.5- 11.5)mean 3.2 ,GroupB(1.7-9.7) mean(5.4).GroupC (1.9-12.1)mean 6.1 .GroupA FSH=(1.2-11.8) mean 5.1, GroupB (1.4-9.7) mean 5.4, GroupC (1.9-12.1)mean 6.1 .Prolactin (99.460) mean (231), GroupB(91-324) mean 183, GroupC (96-520) mean 232.

p-value were insignificant.

### Conclusion:

A precise Testosterone hormonal support in infertile male entails a acknowledgment of the free Testosterone.25% of the patients might not need such support.

## Level of Satisfaction of Penile Implants: A Single Surgeon's Experience in Riyadh, Saudi Arabia

**Ayman Al-Bakri<sup>1</sup>, Abdullah Alokayli<sup>2</sup>, Abdulatif Alhassan<sup>3</sup>, Abdullah Alassaf<sup>4</sup>**

Security forces hospital ,Security forces hospital ,Security forces hospital,Security forces hospital

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**Objectives:** This study aims to assess the level of satisfaction with penile implants and its impacting factors among patients who underwent penile prosthesis implantation between 2013 and 2022, under the care of a single surgeon at one center in Riyadh, Saudi Arabia.

**Methods:** A retrospective analysis was conducted on the medical records of patients who underwent penile prosthesis implantation by the designated surgeon during the specified period. Patient satisfaction was evaluated by over the phone interview using Modified Erectile Dysfunction Inventory of Treatment Satisfaction (EDITES), assessing aspects such as overall satisfaction, achievement of expectations, desire to continue the treatment, ease of use, Confidence in engaging in sexual activity and partner satisfaction. Data were analyzed using ordinal regression model.

**Results:** The study included Sixty patients, with a mean age of 60.2 years and a postoperative follow-up duration of 39.8 months, Including 34 patients with inflatable and 24 with malleable prostheses. Responses indicated a general trend towards satisfaction, with percentages ranging from 56.7% to 83.3% across the six questionnaire items. no significant differences found between malleable and inflatable prostheses for any of the EDITES items. Patients with primary surgeries demonstrated higher satisfaction across all questions than patients with revision surgeries, with statistical significance observed in partner satisfaction ( $p < 0.05$ ). Older participants expressed greater confidence in engaging in sexual intercourse and perceived higher partner satisfaction compared to younger participants ( $p < 0.05$ ).

**Conclusion:** overall satisfaction rates were high, certain determinants, including the type of surgery and patient age, influenced specific aspects

#### **Outcome of ICSI with testicular sperm aspiration ( TESA ) in patients with high DNA fragmentation , Hospital Experience**

**Naif Alhathal<sup>1</sup>, Said Kattan<sup>2</sup>, Turki Alhumaid<sup>3</sup>, Faisal Alzahrani<sup>4</sup>, Serdar Coskun<sup>5</sup>, AbdulAziz Almalki<sup>6</sup>**

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#### **Introduction :**

Sperm DNA fragmentation (SDF) is considered as an important biomarker in the assessment of male fertility potential with contradictory results regarding its effect on ICSI. In our study we focus on the outcomes in male patients with high SDF using testicular spermatozoa ( TESA ).

#### **Aim :**

to evaluate intra-cytoplasmic sperm injection (ICSI) outcomes in male patients with high SDF using testicular spermatozoa and analysis of the cofactors ( Age , Smoking , Chemical Exposure and usage of Anti-oxidants agents )

#### **Methodology :**

Retrospective study on men with high-SDF levels who had a previous ICSI cycle from their ejaculates . A subsequent ICSI cycle was performed using spermatozoa retrieved through testicular sperm aspiration.

#### **Expected Results :**

The rate of clinical pregnancy and live births .

## Histopathological evaluation of the orchiectomy specimens for adult unilateral cryptorchidism

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King Salman Armed Forces Hospital, King Salman Armed Forces Hospital

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### Background

Clinicians generally believe that adult testicles that have not descended do not affect fertility. Furthermore, 10% of testicular malignancies are believed to originate from undescended testicles, and carcinoma in situ is observed in undescended testicles at a ratio of 1-4%. The AUA and EUA guidelines recommend orchiectomy for post-pubertal UDT with normal contralateral testes. For this reason, it is critical to fully inform all post-pubertal UDT patients of risks and potential advantages of orchidopexy vs orchiectomy.

### Objectives

To find out the histopathological characteristics of the adult UDT removed by orchiectomy regarding the presence of any degree of spermatogenesis up to possible sperms. To find out if there are any detected pre-malignant or malignant changes.

### Methods

This retrospective study included 14 patients with mean age of 24.7 (16-47), who were subjected to simple orchiectomy for UDT from 2012 to 2021.

Out of them 10 testes were inguinal, 3 pelvic and 1 abdominal. Removed testes were examined by 2 expert histopathology consultants for the presence of spermatogenesis, malignant or pre-malignant changes

## **Results**

Out of the 14 none showed any sperms in the examined specimens. Histopathology showed 11 patient with Sertoli only, 2 with infrequent hypospermatogenesis and 1 with testicular atrophy. No single case showed ITGCN or overt malignancy.

## **Conclusion**

None of our cases showed any sperms in the orchidectomized adult UDT supporting the consensus of orchidectomy of adult unilateral cryptorchidism. No malignant lesions were detected in our cases as most of them were inguinal testes.

## **Seminal vesicle cyst managed succfully by Endoscopic intervention**

**Abdullatif Alhassan<sup>1</sup>, BANDER Alomyer<sup>2</sup>**

SFH ,sfh

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Hemospermia is a common symptom encounter in urology clinic with various etiology including genitourinary system infections, vascular malformations, stones, inflammations, tumors, and systemic diseases associated with bleeding risks. Surgical treatment includes open surgery, laparoscopic techniques, and transurethral seminal vesiculoscopy.

Accessing the seminal vesicle can be challenging due to its deep location in the pelvis. Numerous clinical studies have shown the safety and efficacy of transurethral seminal vesiculoscopy but there is limited data to compare the efficacy of different surgical approaches for treating hemospermia. In our article, we are presenting a case of seminal vesicle cyst Endoscopic drainage presented with hemospermia by Vesiculolscopy and drainage of the cyst.

A 54 Years old male gentleman presented to Urology clinic with complain of hematuria and lower urinary tract symptoms , physical examination was unremarkable. conservative management failed, and patient was investigated including Urinalysis, Ultrasound of kidney bladder and prostate and MRI pelvis, which showed Right seminal vesicle cyst measuring 4.9 cm. initially patient underwent Transrectal Ultrasound with drainage of seminal vesicle cyst.

Follow up MRI was done after 1 year and showed again hemorrhagic cyst increasing in size to 5 cm. then patient underwent vesiculoscopy with ejaculatory duct dilatation and puncture of the cyst twice in 3 months interval, post operative patient was is instructed to avoid ejaculation for 1 week.

Patient was follow after 6 months, patient reported that significant improvement of lower urinary tract symptoms hematospermia resolved, and Follow up MRI showed significant decrease in size to 2.5 cm.

#### The effect of advanced paternal age on semen parameters

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In our study, we aim to assess the effect of Advanced Paternal Age APA on semen parameters of all couples who underwent assisted reproductive technology treatment at Prince Faisal Bin Mishaal Fertility center in Buraydah, Qassim region, Saudi Arabia from January 2017 to December 2022.

#### **Methodology:**

This was a retrospective cohort study. It included all couples who underwent assisted reproductive technology treatment at Prince Faisal Bin Mishaal Fertility center in Buraydah, Qassim region, Saudi Arabia from January 2017 to December 2022. Data was analyzed using SPSS software. This research seeks to provide a comprehensive understanding of the relationship between APA and semen quality.

#### **Results:**

Our analysis included 1506 patients, and we found that the mean age of male patients was 37.109 years, with a standard deviation of 6.940. Sperm count (MIL/ml) exhibited a mean value of 45.0 million/ml, while Sperm motility showed an average of 50.0, and Sperm abnormal morphology had a mean percentage of 5.0%. Spearman's correlation analysis revealed that patients' male age was positively correlated with Sperm Count (MIL/ml) ( $\rho = 0.075$ ,  $p < 0.01$ ).

**Conclusion:**

Study found a statistically significant but relatively weak positive correlation between male age and Sperm count. It underscores the importance of considering multiple semen parameters when assessing male fertility.

**PREVALENCE of CHROMOSOMAL ABNORMALITIES AMONG 170 NON –OBSTRUCTIVE AZOOSPERMIC PATIENTS**

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**Introduction:**

Amongst the several causes of male factor infertility, genetic causes play an important role. Chromosomal aberrations in the general population is approximately 0.6%. Males presenting with infertility have karyotype abnormalities in the range of 2%-14%. Chromosomal aberrations have been clearly demonstrated to increase with the severity of the infertility (19% in non-obstructive azoospermic NOA). The most common numerical genetic abnormality is Klinefelter syndrome (KS), with 5% and 10% prevalence in men with severe oligozoospermia and azoospermia, respectively.

**Aim:** Our aim is to define the prevalence of chromosomal anomalies among our azoospermic patients evaluated at King Salman Armed Forces Hospital.

**Materials and Methods:** All NOA patients evaluated in our hospital from 2010 until 2023 were subjected to chromosomal analysis after full clinical, laboratory and radiologic work up (scrotal US). Patients with iatrogenic causes of azoospermia as those post-chemotherapy or vasectomy as well as cases of obstructive azoospermia were excluded.

**Results:** Out of 170 NOA patients, 20 (11.76%) showed chromosomal anomalies. Klinefelter syndrome was detected in 11 (6.47%) and Y-chromosome microdeletions in 5 cases (2.94%). Other detected more rare anomalies were Robertsonian translocation between chromosome 13 and 14, abnormal chromosome 16, 46xx male syndrome and Prader Willi syndrome in one patient each.

**Conclusions:** Chromosomal abnormalities were detected in significant numbers of our NOA patients. Klinefelter syndrome was the more prevalent chromosomal anomaly followed by Y chromosome microdeletions. All these patients need genetic counselling before TESE due to lower sperm retrieval rate. Preimplantation Genetic Diagnosis (PGD) is essential for this group of patients.

### **The Safety and Efficacy of Addition of Gentamicin on Irrigation Fluid in Prevention of Post-Transurethral Resection of the Prostate Infectious Complications: A Prospective Randomized Double Blinded Placebo Controlled Pilot Trial.**

**Ahmed Zoair<sup>1</sup>, Ayman Mousa<sup>2</sup>, Hussein mamdoh<sup>3</sup>, Talaat Zaghloul<sup>4</sup>, tarek Gameel<sup>5</sup>, Maged Ragab<sup>6</sup>, Mohamed Abo-Elenein<sup>7</sup>, Fotouh Mansour<sup>8</sup>, Ahmed Eissa<sup>9</sup>**

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**Aim:** to evaluate the safety and efficacy of adding gentamicin on irrigation fluid in prevention of post-TURP infectious complications.

**Methods:**

220 patients, scheduled for TURP, were included and divided into two groups; "Group A" included 110 patients who had undergone TURP with addition of one ampoule of gentamicin 80 mg (2ml) /3L of

irrigation solution (the first 9 Liters during resection and the first 6 Liters during post-operative irrigation) and “Group B” included 110 patients who had underwent TURP with addition of normal saline (2 ml) as a placebo on the irrigation solution. Determination of Gentamicin in human serum using HPLC/UV. Both groups were compared as regards the post-operative pyuria and bacteruria (1 week after removal of urethral catheter), fever, and/or sepsis.

**Results:**

]No significant changes between pre-and post-operative serum creatinine in both groups. The applied method could not detect any amount of gentamicin in the serum of the patients. Post-operative pyuria (1 week after urethral catheter) occurred in 8.2 % in group A versus 20.9% in group B (P=0.007). Post-operative bacteruria was observed in 7 patients (6.3 %) in group A versus 22 patients (20 %) in group B (p value < 0.001). febrile UTI occurred in 3 patients in group A versus 7 patients in group B. Conclusions: The addition of gentamicin on the irrigation solution during and after TURP is safe and significantly associated with reduction of postoperative pyuria, bacteruria and febrile UTI.

**The Impact of Recent Prostate Biopsy on the Outcomes of Bipolar Enucleation of the Prostate: A Comparative Controlled Trial**

**Hussein mamdoh<sup>1</sup>, Ayman Mousa<sup>2</sup>, Ahmed Eissa<sup>3</sup>, tarek Gameel<sup>4</sup>, Maged Ragab<sup>5</sup>, Mohamed Abo-Elenein<sup>6</sup>, Ahmed Zoeir<sup>7</sup>**

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**Aim:**

to evaluate whether preoperative prostate biopsy has a negative impact on the technique and outcomes of bipolar enucleation of the prostate (BiEP) or not and also, detect the ideal time interval between biopsy and enucleation.

**METHODS:**

The data of 125 patients who underwent (BiEP) were retrospectively reviewed. Patients were stratified into two groups; group A (no previous biopsy) (n = 93) and group B (n = 32) had undergone previous

prostate biopsy. Enucleation time, total operation time, enucleation efficacy and complications were compared in both groups.

**RESULTS:** The median age of our patients was 67 (56 – 76). The enucleation and overall operative time were significantly longer in group B than in group A ( $p < 0.001$ ). The overall complication rate was higher in group B (56.3 %) than in group A (10.8 %) ( $p < 0.001$ ). There was no significant difference as regards the post-operative IPSS, Q-max and PVR in both groups. Time interval (less than 2 weeks) between the biopsy and enucleation was significantly associated with higher post enucleation infection rate.

**CONCLUSION:** Previous prostate biopsy before BiEP has been associated with significantly longer enucleation time and higher complications rate when compared to patients without previous biopsy. A time interval more than 2 weeks (between biopsy and enucleation) is crucial to improve the outcomes and reduce the complications.

### Comparison of Transperitoneal Laparoscopic Ureterolithotomy, Retrograde Flexible Ureteroscopy, and Mini- percutaneous Antegrade Ureteroscopic Lithotripsy in the Management of Large Proximal Ureteral Stones (1.5-2 cm): A Prospective Randomized Trial.

Ahmed Zoair<sup>1</sup>, Talaat Zaghloul<sup>2</sup>, Hussein mamdoh<sup>3</sup>, Ayman Mousa<sup>4</sup>, Hassan Elatawy<sup>5</sup>, tarek Gameel<sup>6</sup>, Maged Ragab<sup>7</sup>, Mohamed Abo-Elenein<sup>8</sup>

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**Aim:** to compare the outcomes of transperitoneal LUL, retrograde ureteroscopy (R-URS), and mini-percutaneous antegrade ureteroscopy (A-URS) for the management of large proximal ureteral stones (15–20 mm).

**PATIENTS AND METHODS:**

105 patients with large proximal ureteric stones (15–20 mm) were randomized into three equal groups: Group A (35) patients underwent transperitoneal LUL, Group B (35) patients underwent R-URS, and

Group C (35) patients underwent A-URS. Demographic data, intraoperative, and postoperative data were compared between the 3 groups.

**RESULTS:**

The initial stone-free rate was significantly higher in group A (100%) compared to group B (74.3%) and group C (80%). The mean operative time was significantly shorter in group B ( $61.0 \pm 8.21$  minutes) vs. ( $76.0 \pm 4.97$  minutes) in group C and ( $85.0 \pm 7.57$  minutes) in group A. The three groups were comparable concerning minor complications.

**CONCLUSIONS:**

R-URS is a less invasive modality for treating LPUS; however, it is associated with a lower SFR and a higher rate of auxiliary procedures. Both miniperc A-URS and transperitoneal LUL appear to be more effective and valuable alternatives for treating large proximal ureteral stones.

**Understanding Current Ergonomics Setup for Surgeons Conducting Anatomical Endoscopic Enucleation of the Prostate Surgeries: Survey Analysis from the Endourological Society.**

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**Introduction:**

A sustained practice and preventing work-related injuries require surgeons to maintain good posture and safety. Complex endoscopic prostate enucleation surgeries require upper and lower body coordination and specialized equipment.

**Aim:**

Our study investigates surgeons' prostate enucleation ergonomics and musculoskeletal injuries.

**Method:**

A two-month online survey was sent to urologists via the Endourological Society mailing system using Google Forms®. Answers and participants were anonymous. Analysis was done in R-Studio.

A series of chi-square tests were performed to determine the effect of descriptives, surgical practice characteristics, and ergonomic set up during AEEP on musculoskeletal complaints.

**Results:**

In 119 responses, 65.5%, 37.8%, 35.3%, and 37.7% had general, back, neck, or shoulder pain. Female AEEP surgeons reported more back pain than male surgeons. Experience and age protected surgeons from AEEP-related musculoskeletal pain. With AEEPs over 2 hours, surgeons experience more back pain. Neither display monitor position nor seating nor resectoscope type affected musculoskeletal pain reporting.

AEEP was mostly done sitting (86%) without eye or ear protection (75.6%) or (94%). Most surgeons used size 24 resectoscopes (76.5%) without dissection wings (86.6%). The monitor is usually more than 1 meter away (60.5%) and not at eye level. The room is usually dimmed 52.9% with music playing 57.1%.

**Conclusion:**

Endourologists who perform AEEP have significant MSK complaints. Operating time is the main back pain risk factor. Interestingly, younger patients had more MSK concerns, and experience appears to protect them. Enucleation surgeons' safety and well-being require more research.

### Establishing a cystoscopy suite can decrease costs for hospitals : a cost-effectiveness analysis

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**INTRODUCTION AND OBJECTIVE:**

Endourological procedures are still performed in the main operating room in many hospitals worldwide, with different admission protocols. This may affect their resource allocation, as outpatient cases may require hospital resources.

Many hospitals want cost efficiency but resist change. Indeed, expenditures on the development of an independent endourological suite have been deemed superfluous and expensive.

This project shows how cystoscopy suites improve economic viability in developing countries.

#### **METHODS:**

Authors chose one hospital for the pilot study. This hospital performs 566 urological procedures annually. A list of procedures that can be performed in an ambulatory setting utilizing a cystoscopy suite was compiled by the authors. For ambulatory cystoscopy, a suite was created.

Before and after the project, ten-month intervals were compared. Financial, anonymous patient, and bed occupancy data were extracted from hospital records.

#### **RESULTS:**

The primary operating room and inpatient facilities were used for 124 potentially ambulatory procedures before the project began. Conversely, following the implementation of the project, 201 procedures were modified to be performed in an ambulatory setting. All instruments were usable. This project's physicians and nurses received operational policy and training from the authors.

Procedure scheduling was shortened from 27.44 to 16.08 days. ( $p = 0.019$ ). No patients were admitted after the project. This intervention saved 150.25 inpatient days.

### **Bladder tumor ablation with 980 nm & 980/1470 nm Diode lasers; A retrospective study**

**Farooq Hameed<sup>1</sup>, AdeelAnwaar<sup>2</sup>, Imran Zahoor<sup>3</sup>, Saadat Hashmi<sup>4</sup>**

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**Purpose:**

This study evaluated the safety and feasibility of ablation of both non-muscle invasive and muscle invasive bladder tumors using single and dual wavelength diode lasers (980nm and 980/1470nm).

**Methods:**

We retrospectively examined 151 patients with bladder tumors of any type from 2009-2021 who underwent V-LABT (Visual Laser Ablation of Bladder Tumor) with both single and dual wavelength diode lasers at Shalamar Hospital Lahore, Pakistan. All procedures were performed by the same surgeon. The data was analyzed using chi-square test and p value < 0.05 was considered significant.

**Results:**

The average age of the 151 patients was found to be 64.72±13.85 years. The size of the tumors was 4.88±2.16 cm, with 48/151(31.7%) patients having tumors larger than 3 cm. Ablation took 1.57±0.73 hours to complete on average. None of the patients required a conversion to TURBT in 151 patients. No obturator reflexes or bladder perforations were observed in any case. The average catheterization duration was 6.58±1.47 days. Tumors located on difficult sites, such as the anterior wall, lateral wall, and bladder neck, was ablated with ease. There was no recurrence seen on previously tumor ablated sites till 12 months follow up.

**Conclusion:**

Ablation of bladder tumors of any type using single or dual wavelength diode laser (980 nm and 980/1470 nm) is safe and feasible. These lasers possess the capability to effectively ablate/coagulate bladder tumors in challenging anatomical locations including diverticular tumors with minimal difficulty.

## Prevalence and Risk Factors of Renal Stones Among Bisha Population, Saudi Arabia

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## **Abstract**

**Background:** In urolithiasis, urinary calculi are formed in the urinary system. Stone development does not initially result in any symptoms, but later, renal colic, flank pain, hematuria, obstruction of urine flow, and/or hydronephrosis may indicate renal stone disease. In addition to age, gender, ethnicity, and local climate, urolithiasis can be caused by several other factors. Both the prevalence and recurrence rate of kidney stone disease are rising globally, while few effective treatment options currently exist.

**Methodology:** Between June and October 2022 a cross-sectional study was conducted. An electronic questionnaire subdivided into three categories was used to estimate the prevalence and risk factors of urolithiasis in the Bisha population. The collected data was reviewed and analyzed via SPSS version 21.

**Results:** 1,002 participants completed the questionnaire. Participant ages ranged from 18 to more than 60 years, with a mean age of  $26.1 \pm 13.9$  years old. 451 (45%) were females and 927 (92.5%) were Saudi. 98 (9.8%) were underweight, 388 (38.7%) normal weight, 300 (29.9%) overweight, and 216 (21.6%) obese. 161 (16.1%) participants had a history of urolithiasis and 420 (41.9%) had a family history of renal stones. Having urolithiasis was found to be significantly associated with family history, smoking, diabetes, hypertension, hyperthyroidism, gout, and chronic kidney disease. Older age and female gender were also associated with the risk of having urolithiasis.

**Conclusion:** urolithiasis was highly prevalent among the Bisha population. In respect risk factors, BMI, smoking, and diabetes were the most significant. Authors recommend more public education regarding urolithiasis

## **Prone Versus Supine Mini-percutaneous Nephrolithotomy for Medium Sized (1-3cm) Renal Stones: A Prospective Randomized trial**

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## **INTRODUCTION & OBJECTIVES:**

Mini-PCNL ( $\leq 22\text{Fr}$ ) was introduced in the 1990s to decrease morbidity associated with standard (24–30F) percutaneous nephrolithotomy. The prone position could be associated with several anesthetic and surgical drawbacks. The supine position PCNL was introduced in 1987 by Valdivia to overcome these disadvantages. In this setting, we aimed to compare the efficacy and safety of mini-percutaneous nephrolithotomy for medium sized renal stones (1-3 cm) in supine position versus prone position.

## **PATIENTS AND METHODS:**

After the approval of local ethical committee, 80 patients with medium sized renal stones (1-3 cm) were randomized into 2 groups: Group A (40) patients underwent (supine mini-pcni), Group B (40) patients underwent (prone mini-pcni), Demographic data, Operative and postoperative data were compared between the 2 groups.

## **RESULTS:**

Both groups were comparable in terms of patients' demographic and stone criteria. The mean operative time was significantly shorter in group A ( $112.8 \pm 20.82$ ) compared to Group B ( $136.1 \pm 26.51$ ). The final SFR was 89.5% and 83.8% in groups A and B respectively (p value = 0.469). Both groups were comparable as regards the auxiliary procedures, hospitalization period, and postoperative complications.

## **CONCLUSIONS:**

Both supine and prone mini-pcni were shown to be effective and safe for medium sized renal stones with comparable SFR and overall complications. The shorter operative time was in favor of supine mini-pcni. Further studies are needed to confirm our results.

Key words: Mini-pcni; supine; prone; operative time; Stone free rate.

Flexible Ureteroscopy without ureteral access sheath in virgin ureters, does it make a difference?

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**Introduction:**

Our study objective was to compare the safety and efficacy of F-URS (flexible ureteroscopy) and laser lithotripsy with and without UAS (ureteral access sheath) in virgin ureters.

Patients and methods:

A non-concurrent cohort study included patients who underwent F-URS for upper ureter and renal stones with no pre-stenting between January 2020 and September 2023 at two tertiary care institutes. Patients were divided into two groups upon UAS use. The study groups were compared regarding demographic data and stone characteristics, successful stone access, operative time, perioperative complications, the need for ancillary procedures, and the stone-free rate after three months.

**Results:**

Eighty-two patients without Ureteral Access Sheath (UAS) were included in Group 1 compared to 115 with UAS in Group 2. The operative time was significantly shorter in Group 1 (74.2 minutes  $\pm$  9.7) as compared to Group 2 (83.5  $\pm$  7.6) ( $p < 0.01$ ). The overall scope-to-stone access rate was 90.2% in Group 1 and 91.3% in Group 2 ( $p = 0.32$ ). Similarly, the stone-free rate was 86.6% in Group 1 compared to 88.7% in Group 2 ( $p = 0.56$ ). The study revealed no significant differences in perioperative adverse events and urinary tract infection rates between both study groups. Ancillary procedures were reported in 26.8% of group 1 compared to 25.2% of group 2 ( $p = 0.24$ ).

**Conclusion:**

Flexible ureteroscopy and laser lithotripsy without Ureteral Access Sheaths in a virgin ureter is feasible, effective, and safe, adding the benefits of shorter operative time and lower cost.

Ureteric colic management in Al-Ahsa, Eastern Province: A retrospective study

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### **Background:**

Due to the increasing incidence of urinary tract stones and advances in technology, new and improved ways of managing stone disease have emerged that are dependent on certain patient and stone-related factors.

### **Methods:**

This retrospective cross-sectional chart review study used systematic random sampling from the King Abdulaziz Hospital database. The research focuses on managing stone disease in patients who attended the emergency department and the outcomes of these patients based on the modality used: conservative or operative management. We also focused on patients and some stone-related factors (e.g., site, composition) that could affect the type of management plan for patients. The data were then processed using the Statistical Package for the Social Sciences (SPSS).

### **Results:**

Based on our results, we found that most of the patients presented in summer (133 patients; 60.18%), with males being more prone to being affected by urinary tract stones than females (171 men and 50 women, respectively). Most of the patients (150; 67.8%) were managed conservatively, with some patients (71; 32.1%) requiring minimally invasive procedures, such as double-J stent insertion or ureteroscopy.

### **Conclusion:**

Our research highlights the outcomes of the different treatment modalities used to manage renal and ureteric stones at our center.

**Keywords:** Ureteric stone, Renal colic, obstructive uropathy, Ureteroscope, management of urinary tract stones

**Determinants of Stone-Free Status after a Single session Flexible Ureteroscopy with Laser Lithotripsy for Renal calculi**

**Sameer Munshi<sup>1</sup>, Mohamed Elkoushy<sup>2</sup>, Waseem Tayeb<sup>3</sup>**

**Objectives:** To determine the predictors stone free status (SFS) after flexible ureteroscopy (fURS) with holmium laser lithotripsy (HLL) for renal calculi.

**Methods:** A retrospective review of prospectively collected data was performed for all consecutive patients undergoing fURS and HLL for renal calculi at a tertiary care center. SFS was defined as presence of no residuals or  $\leq 4$ -mm non-obstructing stone. Multivariate logistic regression was used to detect possible predictors of SFS.

**Results:** A total of 212 patients were included with a mean age of  $52.3 \pm 8.3$  years and a stone burden  $< 20$  mm (49.1%), 20-30 mm (41.0%) and  $> 30$  mm (9.9%). The SFR after a single session of fURS was 92% and 52% for stones less and larger than 20 mm, respectively. Patients with stones  $> 20$ -mm needs retreatment with a mean number of 1.8 (1.3-2.7) fURS. SFS was significantly associated with male gender, stone bulk  $< 20$  mm (95.7% vs. 56.2%), non-lower pole stones, hydronephrotic kidney, low stone intensity, ureteral access sheath, and preoperative stenting. SFS was associated with lower readmission rate (5.9% vs. 38.9%) and urinary tract infection (3.8% vs. 25.9%). In multivariate regression analysis, SFS maintain its significance association with low stone burden of  $< 20$  mm (OR: 5.21), stone intensity  $< 600$  HFU (OR: 2.87), and non-lower caliceal stones (OR: 3.84).

**Conclusions:** Best results after a single-session fURS for renal stone were obtained for stone burden of less than 20-mm and low stone attenuation. Lower caliceal stones may influence stone clearance and needs a different approach than fURS, especially for higher stone burden.

### **Background**

Laparoscopic surgery has become a mandatory requirement of surgical residents and trainees. Since its revolutionary introduction in the 20th century. However, the difficult process and long learning curve by which the laparoscopic skill is mastered by surgeons has become a main stumbling block.

### **Objectives**

In our study, we aim to assess the barriers, level of satisfaction of laparoscopic training among surgical residents in (Urology, General surgery, Pediatric surgery, and Obstetrics & Gynecology) in Saudi Arabia.

### **Materials & Methods**

We conducted a cross-sectional study and distributed a questionnaire among surgical residents in Urology, General Surgery, Pediatric surgery, and Obstetrics & Gynecology.

### **Results**

We received 193 responses. Only 34 (17.6%) lack the involvement of laparoscopic training. Most residents believe intra operative training best developed their skill followed by simulator and courses/workshops. More than half (52%) of participants had a simulator available at their center. Majority of the participants agree that bimanual dexterity is the most important skill to learn during training followed by tissue handling and suturing. Less than half (42%) of the participants felt confident enough to perform surgery alone after their training. Residents considering a fellowship in laparoscopy were 60%.

### **Conclusion**

Laparoscopic approach has managed to improve both patient and surgeon outcome in surgeries and overall management. Ours respondents believe the best method to develop their skills is intra operatively. The results also showed the lack of adequate training, with most considering a fellowship and a future career in laparoscopy.

**RECOVERY OF RENAL FUNCTION AFTER RELIEF OF OBSTRUCTION IN UNILATERAL OBSTRUCTED KIDNEY DUE TO IMPACTED URETERIC CALCULI**

**Muhammad Naseem Sherzad**

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## RECOVERY OF RENAL FUNCTION AFTER RELIEF OF OBSTRUCTION IN UNILATERAL OBSTRUCTED KIDNEY DUE TO IMPACTED URETERIC CALCULI

### **Objective**

To determine the recovery of renal function after relief of obstruction in unilateral obstructed kidney due to impacted Ureteric calculi.

### **Methodology**

This study was conducted on 182 patients presenting with obstruction in unilateral obstructed kidney due to impacted Ureteric calculi both gender included with age range of 18 to 70 years.

Patients with Diabetic mellitus and Hypertension associated with Ureteric calculi, pregnancy, Bilateral Ureteric calculi, Solitary kidney and Preoperative Renographic Split renal function less than 10% were excluded from the study.

### **Result**

This study was conducted on 182 patients presenting with unilateral obstructed kidney due to impacted Ureteric calculi.

The mean age of the patients was  $45.58 \pm 15.78$  years

According to gender distribution there were 64 (35.2%) males and 118 (64.8%) females in our study

The frequency of renal function recovery was 113 (62.1%)

### **Conclusion**

in our study the recovery of renal function after relief of obstruction in unilateral obstructed kidney due to impacted Ureteric calculi was observed in 113 (62.1%) patients. We propose that people with this disorder receive effective counselling and that intervention indications be considered.

## The Outcomes of Three Different Techniques of Prostatic Abscess Drainage: A Retrospective Single Center Experience.

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**Objectives:** to compare the outcomes of the three modalities of prostate abscess (PA) drainage: Transrectal ultrasound (TRUS) guided aspiration (TRA), transperineal aspiration (TPA), and transurethral de-roofing (TUD).

**Methods:** The records of 66 patients diagnosed with PAs were collected between 2015 and 2022 and divided into 3 groups according to the technique of abscess drainage that was used. (Group A) included 26 patients treated by TRA; (Group B) included 28 patients treated by TUD; and (Group C) included 12 patients treated by TPA. The three groups were compared based on demographic data, drainage success, recurrence, complications, and hospital stay.

**Results:** The most common clinical presentation was lower urinary tract symptoms (LUTS) in 45 patients (68.18%), followed by fever in 40 patients (60.6%). The mean abscess size (cm) was  $4.8 \pm 1$ ,  $5.7 \pm 1$ , and  $5.4 \pm 1.3$  cm in groups A, B, and C, respectively. Recurrence of the abscess occurred in three (11.5%), one (3.6%), and one (8.3%) patients in groups A, B, and C, respectively ( $p = 0.496$ ). The mean hospital stay was  $4.8 \pm 1.7$ ,  $5 \pm 1.8$ , and  $4.5 \pm 1.3$  days in groups A, B, and C, respectively ( $p = 0.763$ ). When compared to the other two groups, the TUD group had a higher rate of complications (32.1%).

**Conclusion:** A TRUS-guided transrectal and transperineal aspiration of PA were comparable to TUD technique regarding the recurrence rate and hospitalization period; however, the less frequent complications were in favour of the aspiration groups.

## The learning curve for Robotic-assisted Ureteropelvic Anastomosis in Urologists with no prior robotic experience using an ex-vivo model: A Prospective, Controlled Study

**Abdullah Ayed**

University of bisha

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**Introduction:** Despite the increasing trend of utilizing robotic techniques in pyeloplasty, with well-established safety and effectiveness, little is known about the learning curve for robot-assisted laparoscopic pyeloplasty (RALP) amongst urologists with no prior robotic experience. Therefore, the present ex-vivo study aimed to evaluate the learning curve of residents in the last year or new urologists performing RALP

**Methods:** We conducted a prospective ex-vivo model study that enrolled 17 participants who were either residents in the last year or new urologists. All participants were required to complete the training program or perform the four robotic anastomoses in a dry lab. We limited the participation in the present study to urologists who did not have any prior experience with robotic surgery to perform RALP using the three-arm Avatera system.

**Results:** Each participant successfully completed the four attempts of RALP. Each surgeon demonstrated a reduction in the time to complete anastomosis from the 1st to 4th attempts. There was a significant improvement in the gained skills, as demonstrated by the significant decrease in the average time to complete the anastomosis from  $33.41 \pm 3.8$  minutes at the first attempt to  $29 \pm 4.2$  minutes at the fourth attempt. The mean reduction (95% CI) in the time to complete the pyeloplasty was  $-4.412$  ( $-4.96$  to  $-3.87$ ) minutes, with a percentage reduction of 13.5%.

**Conclusion:** Surgeons can significantly improve their learning curve with a few attempts of RALP

## Ultrasonographic guided Robotic-assisted percutaneous renal puncture: a feasibility study.

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### **Aims**

We present the feasibility of an ultrasonographic guided robotic-assisted percutaneous renal puncture system combining the robotic precision and 3D reconstruction accuracy.

### **Methods**

The preoperative CT is 3D-reconstructed to calculate the ideal trajectory for the puncture. The robot software aligns the 3D reconstructed image with the US live image. The ultrasound probe with the applicator is attached to the robotic arm to assist surgeons in performing the puncture.

The feasibility of the system was tested on a commercial kidney model with 20 mm stone target. A cohort of 6 urologists (2 experts and 4 novices) was involved to compare the manual ultrasound-guided kidney puncture and the one executed with the robotic system. Finally, the (SURG-TLX) questionnaire was used to assess the surgical workload.

### **Results**

Figure 1a shows that the robotic system was associated with less surgical workload in nearly all the measured aspects for both experts and novices particularly task complexity and temporal demands. As regards the ease of puncture, 3 novices required >2 trials to manually attain the renal puncture, while using the robotic system all surgeons required one trial. Manual renal puncture time by novices was longer compared to the robotic-aided punctures (416 vs 44.3 seconds). Figure 1b shows that novices move the ultrasound probe over a larger surface area to reach the successful manual renal puncture compared to experts.

### **Conclusions**

We introduced the first prototype for ultrasonographic guided robotic-assisted percutaneous renal puncture system that can potentially simplify the procedure, reduce human errors, and shorten training time.

## Challenges of cystine stone management

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King Fahad Hospital, King Abdulaziz Medical City, Riyadh, Saudi Arabia, King Fahad Hospital, King Abdulaziz University Hospital, King Abdulaziz University Hospital, King Abdulaziz Medical City, College of Medicine, King Khalid University, King Fahad Hospital

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**Aim:** This study examined the challenges associated with managing cystine stones.

**Methods:** Following ethical approval, we interviewed all patients diagnosed with cystine stone disease between 2016 and 2021. The clinical data were retrospectively reviewed and analyzed. Demographic information was recorded as well.

**Results:** The study included 28 adult patients with cystinuria nephrolithiasis, with an average age of  $29.7 \pm 12.24$ . Of these patients, 78.6% had consanguineous parents, and the first stone episode occurred at an average of  $13 \pm 8.5$  years old. Most patients (82.1%) had a family history of the disease, and stone analysis was performed in 22 cases (78.6%) after a delay of 3.6 years from the first episode. Cystinuria was diagnosed, on average, 6.32 years after the first episode. Only 17 patients (60.8%) underwent metabolic evaluation for kidney stones. Regarding treatment, 46.5% of patients started taking alkalinization medication, and only 35.7% began chelating agent therapy. Additionally, 50% of patients took herbal remedies.

**Conclusion:** From the patient's perspective, early diagnosis and understanding of their condition would significantly impact the disease's course. While patients generally complied with alkalinization therapy, adherence to chelating agents was not as precise. Consanguinity in Saudi Arabia played a significant role in increasing the inheritance of the disease, and stones had high recurrence or regrowth rates with relatively large stone burdens.

## Beyond Standard Anatomy : Laproscopic Donor Nephrectomy Outcome When Tackles Complex Vasculature

**Dr. Ahmed Alzahrani<sup>1</sup>, Dr. Tariq Alzahrani<sup>2</sup>, Dr. Hossam El-Tholoth<sup>3</sup>, Dr. Abdulaziz Alhazzaa<sup>4</sup>  
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**Objective:** laparoscopic donor nephrectomy (LDN) nowadays a common procedure used for live kidney donation. This study evaluated the impact of complex renal vasculature on outcomes in laparoscopic donor nephrectomy (LDN).

**Methods:** A retrospective review of LDNs performed at our center between 2016 and 2020 in donors with abnormal renal vasculature was conducted. Demographic, surgical, and post-operative data were analyzed for both donors and recipients.

**Results:** Among 24 donors (79.2% male), and 5 female (20.8%). 83.3% had double renal arteries, 8.3% triple arteries, and double renal veins in 4 cases (16.7%), retroaortic renal vein in 4 cases (16.7%), circumaortic renal vein in 1 cases (4.2%). 25% had mixed vascular anomalies. Compared to normal vasculature, LDNs with complex anatomy showed longer operative and warm ischemia times for both donors and recipients, but no significant differences were found in blood loss, complications, post-operative creatinine levels, or hemoglobin levels.

**Conclusion:** LDN with complex renal vasculature is feasible and safe despite intraoperative challenges. Donor and recipient outcomes remain unaffected by vascular complexity.

## Quality of Life of Women With Urinary Incontinence in the Eastern Region of Saudi Arabia

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Razan Alshaikh Saleh, Mohammad Almomen, Mohammad Alsalman  
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**Introduction:** One of the most common health problems affecting women globally is urinary incontinence, which corresponds to any involuntary leakage of urine. It significantly affects physical health, interpersonal relationships, sleep, and the incidence of mental disorders. It is important to ascertain how urinary incontinence affects the quality of life of women in the eastern region of Saudi Arabia. Therefore, the aim of this study was to assess the impact on the quality of life of women with urinary incontinence in the eastern region of Saudi Arabia.

**Methods:** A cross-sectional study was performed across the eastern region of Saudi Arabia using a questionnaire. A total of 269 women responded to the questionnaire, which was divided into two sections. The first focused on patient characteristics, and the second, which had 28 items, evaluated the quality of life of women with urinary incontinence.

**Results:** Analysis of the responses demonstrated that 107 women (39.8%) had a good quality of life overall, 87 (32.3%) had an average quality of life, and 75 (27.9%) had a poor quality of life as a result of incontinence.

**Conclusion:** Urinary incontinence significantly impairs the quality of life of women in the eastern region of Saudi Arabia. Factors such as older age, lower education level, and unemployment are associated with poorer quality of life. Effective interventions are needed to improve the quality of life of women with urinary incontinence in the region.

## Electronic voiding diary with automated diagnosis and management

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The burden of documenting every time a patient uses the bathroom, whether during the day or waking up at night, can be overwhelming. However, manually recording this information with a pen on the same sheet of paper or in a book can be even more taxing and impractical for some patients.

Our project introduces what is believed to be a promising solution for those in need of a reliable and user-friendly voiding diary accessible at their fingertips. We established a set of criteria and definitions intended to assist all patients in summarizing their symptoms in a single word, aiming to reduce subjectivity and variations.

The primary goal of our innovative tool is to simplify the process of documenting voiding habits for patients. Additionally, it aims to assist physicians in making informed decisions based on standardized data, navigating through automatically calculated values derived from implemented formulas.

## Percutaneous Sacral Nerve Evaluation Versus Staged Sacral Nerve Stimulation for Lower Urinary Tract Dysfunction

**Nader Aldossary, Magdy Hassouna**

King Fahad Specialist Hospital – Dammam, University Health Network

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### **Objective:**

Sacral Neuromodulation is an established therapy for bladder and bowel dysfunctions, comprising a test phase and permanent implantation. Success, defined as >50% symptom improvement, is assessed. The test phase methods, staged procedure in the operating room and Percutaneous Nerve Evaluation in the office, were compared for clinical success and sustained long-term outcomes.

### **Materials & Methods:**

A retrospective cohort study between March 2017 and June 2022. Included patients with lower urinary tract dysfunctions who proceeded with the stage I SNM, or PNE as the initial test phase.

### **Results:**

A total of 155 patients were categorized into 2 groups according to the type of test trial. 69 patients underwent Staged Implants and 86 patients underwent PNE. Diagnoses were as follows: Refractory Overactive bladder in 21 patients (30%) and 21 (30%), Urinary retention 40 (57.9%) and 37 (43%), CPPS/IC 3 (4.3%) and 7 (8%), fecal incontinence 5 (7%) and 1 (1%) in Staged and PNE group, respectively. 36 patients (42%) from the staged group and 50 patients (57%) from the PNE group had permanent implants with no significant statistical difference. No difference in terms of sustained clinical response at 6 weeks and 6 months post-operatively. Overactive bladder, female gender, and history of prior pelvic surgery were positive indicators for a successful test phase, regardless of the test type.

### **Conclusion:**

No difference between PNE and staged procedure in conversion to permanent implants and long-term clinical outcomes. We recommend PNE as an initial cost-effective and office-based test phase for sacral neuromodulation LUT dysfunction.

## The impact of urinary incontinence on the quality of life during pregnancy among Saudi women, cross sectional study

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### **Background and aim:**

Urinary incontinence (UI) is the involuntary leakage of urine. It's a widespread clinical condition that is frequently associated with adverse impact that significantly worsens quality of life (QOL). This study aims to assess the impact of UI on the QOL during pregnancy among Saudi women.

### **Methodology:**

This is a cross-sectional survey conducted among pregnant women in all regions of Saudi Arabia between January and March 2023. The validated study instruments consisted of questions on socio- demography, obstetric characteristics, International Consultation on Incontinence Questionnaire– Urinary Incontinence Short Form (ICIQ-UI SF) to determine UI, and International Consultation on Incontinence Questionnaire-Lower Urinary Tract Symptoms Quality of Life questionnaire (ICIQ-LUTSQoL) to assess their QOL.

### **Results:**

Data of 1286 participants were collected. 31.3% suffered from UI during pregnancy. The presence of UI strongly correlated with specific variables: overweight , 2 to 5 previous pregnancies , vaginal deliveries . 67.8% did not consult a physician. The results of the multiple regression model showed that the risk of a high QOL score was independently associated with the leakage of a moderate amount of urine ( $p < 0.001$ ), as well as the leakage of urine several times a day ( $p < 0.001$ ) and all the time ( $p = 0.001$ ).

### **Conclusion:**

Around 31% of pregnant women in Saudi Arabia experience urinary incontinence, which can have a significant impact on their quality of life. Therefore, increasing the awareness of UI risk factors, the importance of help-seeking, the availability and outcomes of treatment among pregnant women is mandatory.

## The Impact of Extracorporeal Shock Wave Lithotripsy (ESWL) on Kidney Length and Corticomedullary Differentiation in Patients with Renal Stones: A Case-Control Study

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**Background** The effect of extracorporeal lithotripsy (ESWL) on kidney morphology was evaluated sonographically in patients with renal stones. This study aimed to investigate the effects of ESWL on the kidneys for 12 months after consecutive sessions.

**Methods:** this case-control study included adult participants from 2018 to 2021 in three major centers of ESWL treatment. Data were collected from 391 patients (336 treated with ESWL and 85 in the control group). Data were analyzed using SPSS version.

**Results:** The overall effect of ESWL treatment on patients with renal stones were observed in 19.9% disturbed CMD, 11.6% decreased parenchymal thickness, and significantly reduced KL after one year of ESWL exposure. KL was significantly decreased in patients exposed to ESWL compared to controls (9.103 vs. 10.291 cm, p-value < .001). KL decreased significantly as the number of ESWL sessions increased (r = -.209, p-value < .001). After adjustment, the frequencies of ESWL and hydronephrosis were significantly associated with CMD distortion. Patients who were exposed to more than one ESWL session had 2.64 increased odds of distorted CMD as compared to controls (AOR=2.64, 95% CI = 1.040–6.683), and those with hydronephrosis had 1.70 increased odds of distorted CMD as compared to controls (AOR=1.70, 95% CI = 1.188–2.434).

**Conclusion:** ESWL significantly affected the renal length and CMD in patients with renal stones. The frequency of ESWL sessions significantly decreased KL and disturbed CMD in patients with renal stones. The outcome was not affected by the number of stones.

#### Incidental Finding of Prostate cancer after TURP in Tertiary Care Center in Riyadh, Saudi Arabia

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Raghib Abusaris, Abdullah Alhaider

NGHA, KAIMRC, KSAU-hs,

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**Background:** Incidental prostate cancer (IPCa) refers to cancer that is discovered during microscopic examination of resected prostate tissue previously diagnosed as benign. Transurethral resection of the prostate (TURP) targets prostate's transitional zone. This study aims to present the prevalence of IPCa based on pathology reports of prostate tissue chips, and to assess the cancer's stage, risk factors, and treatment modalities.

**Methods:** This cross-sectional retrospective study included patients who underwent TURP between 2015 and 2023. A pre-existing prostate cancer cases were excluded, 418 patients were analyzed. IPCa were identified through pathology reports of prostatic chips. Additionally, cancer stage, and treatment choices, were documented

**Results:** 35 patients were diagnosed with IPCa, yielding a prevalence of 8.4% (95% CI: 5.7% to 11.0%). 13 (37.1%) exhibited metastatic disease. IPCa were found to have significantly higher PSA levels and smaller prostate volumes. Multivariable logistic regression indicated that elevated PSA density, ischemic heart disease, chronic kidney disease, and a prior personal history of malignancy significantly influenced the likelihood of IPCa ( $p < 0.05$ ). Mann-Whitney testing revealed that patients with metastatic disease had a

median Gleason score of 9, those with localized disease had a median score of 7 ( $p < 0.001$ ). Majority received hormonal therapy alone or in combination with chemotherapy or radiation (69.7%).

**Conclusion:** Our study disclosed an IPCa prevalence of 8.4%, with patients exhibiting elevated PSA levels and reduced prostate volumes, suggesting that PSA density is a valuable tool for evaluating patients with borderline PSA levels. A patients with a personal history of malignancy warrant close follow-up.

## Performance of Language Learning Models in Providing Prostate Cancer Information

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### Background

Prostate cancer, the second most common cancer in men worldwide, is highly complex regarding diagnosis and management. Patients often seek knowledge through additional resources, including AI chatbots such as Generative Pre-trained Transformers (ChatGPT) and Google Bard. This study aimed to evaluate the performance of LLMs in providing educational content on prostate cancer.

## Methods

Common patient questions were collected from trusted educational websites on prostate cancer. The questions targeted general knowledge, diagnosis, treatment, and prevention material on prostate cancer. The quality of the answers was evaluated based on their accuracy, comprehensiveness, patient readability, and stability. A 3-point scale was used for accuracy. A 5-point Likert scale was used for comprehensiveness. The Flesch Reading Ease (FRE) Score and Flesch–Kincaid Grade Level were used to assess readability. Two experienced board-certified urologists worked independently to complete the ratings, and a blinded third board-certified urologist resolved any discrepancies in grading and assessment.

## Results

A total of 52 questions were provided to three LLMs. Despite no significant difference in the overall accuracy of LLMs, ChatGPT demonstrated superiority among the LLMs in the context of general knowledge of prostate cancer ( $p = 0.018$ ). ChatGPT Plus achieved higher overall comprehensiveness than ChatGPT and Bard ( $p = 0.028$ ). For readability, Bard generated simpler sentences with higher FRE score (54.7,  $p < 0.001$ ) and lowest FK Reading Level (10.2,  $p < 0.001$ ).

## Conclusion

ChatGPT and Bard generate accurate, understandable, and easily readable material on prostate cancer. These AI models might not replace healthcare professionals but can assist in patient education and guidance.

## Impact of Chemotherapy on Survival in Elderly Individuals Undergoing Partial Cystectomy for Muscle Invasive Bladder Cancer

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## INTRODUCTION:

Neoadjuvant chemotherapy (NAC) with radical cystectomy is the standard of care for muscle invasive bladder cancer (MIBC), but there is a growing interest in bladder preservation among the elderly. Guidelines suggest NAC with partial cystectomy (PC) can be considered a viable option in select individuals with T2 tumors. Therefore, we used the National Cancer Database to compare survival outcomes in the elderly population who underwent PC with or without chemotherapy.

## METHODS:

We identified patients above 70 years who underwent PC with or without chemotherapy for localized MIBC (cT2-4aN0M0) with urothelial histology between 2004 and 2017. The NAC cohort included PC with NAC, the AC cohort included PC with AC, and the final cohort only PC. We used Kaplan-Meier survival analysis to compare the overall survival (OS) between these cohorts.

**RESULTS:**

Of 2573 patients who underwent PC, 1068 met our criteria. Among them, 747(69.9%) had only PC, and 194(18.2%) had NAC and 127(11.9%) had AC. The median OS for the NAC, only PC, and AC cohorts were 64.1, 43.6, and 34.8 months, respectively ( $p<0.005$ ). Similarly, in T3 tumors, the median OS was 41.1, 24.3, and 26.2 months; in T2 tumors, it was 73.7, 56.1, and 72 months for the NAC, only PC and AC cohorts respectively ( $p=0.20$ ).

**CONCLUSION:**

In our study on the elderly population treated with PC, we observed that the NAC cohort had better survival than AC and only PC cohorts. However, NAC only conferred limited benefits in T2 tumors compared to the other cohorts.

## Survival Outcomes in Older Population with Clinical Node-Positive Bladder Cancer: Radical Cystectomy versus Chemoradiation

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**INTRODUCTION:**

Patients with clinically node positive (cN+) bladder cancer face a higher risk of developing distant metastasis. The treatment options are neoadjuvant chemotherapy with radical cystectomy (RC) or concurrent chemoradiation (CRT). With improvement in healthcare and an increase in life expectancy, a greater proportion of older adults are undergoing challenging procedures. Therefore, it is essential to understand the survival outcomes among the elderly. We used the National Cancer Database to compare the survival outcomes between RC and CRT among the older population with cN+ bladder cancer.

**METHODS:**

We identified individuals aged  $\geq$  70 years diagnosed with bladder cancer (cT1-4aN1-3M0) between 2004 and 2017. RC arm included patients who underwent RC with or without chemotherapy or radiotherapy, and the CRT arm included those who received chemotherapy and radiotherapy within 90 days. After propensity-matching, we performed a Kaplan-Meier survival analysis to analyze the overall survival (OS) outcomes.

**RESULTS:**

Among 7673 individuals with cN+ cancer, 1220 met our selection criteria. The RC and CRT arm comprised of 959 (78.6%) and 261 (21.4%) patients, respectively. In the RC arm, 525 (54.5%) were treated in academic centers, whereas within the CRT arm, 120 (46%) were treated in community centers ( $p < 0.001$ ). After matching, each arm consisted of 218 patients, and the median OS was 20 and 14.4 months for the RC and CRT arm, respectively ( $p < 0.001$ ).

**CONCLUSION:**

In older individuals with cN+ bladder cancer, RC had favorable survival outcomes compared to CRT. This information could be valuable in patient counseling and encouraging shared decision-making.

## Role of Pelvic Lymph Node Dissection in Partial Cystectomy for Muscle-Invasive Bladder Cancer among Octogenarians

Arjun Pon Avudaiappan<sup>1</sup>, Pushan Prabhakar<sup>2</sup>, Akram Bokhari<sup>3</sup>, Ahmed Eldefrawy<sup>4</sup>, Murugesan Manoharan<sup>5</sup>

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**INTRODUCTION:**

While radical cystectomy remains the first-line treatment for muscle-invasive bladder cancer (MIBC), bladder preservation protocols are gaining popularity. Guidelines suggest partial cystectomy (PC) with pelvic lymph node dissection (PLND) can be considered a viable option in certain selected individuals

with stage II MIBC. We used the National Cancer Database to compare survival outcomes in octogenarians who underwent PC with and without PLND.

**METHODS:**

We identified octogenarians who underwent PC with or without PLND for localized MIBC (cT2-4aN0M0) with urothelial histology between 2004 and 2017. The PLND cohort included PC with PLND, and the non-PLND cohort only PC. Based on lymph node yield (LNY), the PLND cohort was categorized into inadequate (<10 nodes) and adequate ( $\geq 10$  nodes) cohorts. We used Kaplan-Meier curves to compare the overall survival (OS) between PLND and non-PLND cohorts.

**RESULTS:**

Of 2473 patients who underwent PC, 519 were octogenarians. Among them, 217 (41.8%) had PLND and 302 (58.2%) had no PLND. Within the PLND cohort, 160 (73.7%) and 57 (26.3%) had inadequate and adequate dissection, respectively. The median OS for the PLND and non-PLND cohorts were 41.9 and 32.9 months, respectively ( $p=0.16$ ). Similarly, those with adequate and inadequate dissection in the PLND cohort had a survival of 53.4 and 37.1 months, respectively ( $p=0.33$ ).

**CONCLUSION:**

In our study on octogenarians treated with PC, we observed combining PLND improved the OS, and a LNY of  $\geq 10$  had a better OS. This helps us to understand the importance of PLND among octogenarians treated with PC.

**Survival Outcomes in an Older Population with Muscle-Invasive Bladder Cancer: A Study on Partial and Radical Cystectomy**

**ArjunPon Avudaiappan<sup>1</sup>,PushanPrabhakar<sup>2</sup>,Akram Bokhari<sup>3</sup>,Ahmed Eldefrawy<sup>4</sup>  
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**INTRODUCTION:**

While radical cystectomy is the primary treatment of choice for muscle-invasive bladder cancer (MIBC), there has been a growing interest in bladder preservation strategies. Current guidelines suggest that partial cystectomy (PC) with neoadjuvant chemotherapy (NAC) is a feasible alternative for certain individuals with stage II MIBC. Therefore, it is essential to understand the survival outcomes among older adults who undergo PC. Our study aims to compare the survival outcomes between RC and PC in the older population.

**METHODS:**

Our study focused on individuals above 70 years diagnosed with localized MIBC and urothelial histology (cT2-4aN0M0) between 2004 and 2017. These patients were categorized into PC and RC. After matching with sex, race, ethnicity, median income, insurance, and comorbidity index, we performed a Kaplan-Meier survival analysis to compare the overall survival (OS) between PC and RC in T2 tumors <5cm.

**RESULTS:**

Among 58,038 patients above 70 years, 15,534 patients met our criteria. Of them 1,083 (7.0%) underwent PC, and 14,451 (93.0%) underwent RC. In the PC and RC cohort 199 (18.4%), and 4,332 (30%) received NAC. In the subset of patients with T2 tumors <5cm, 529 (7.4%) had PC, and 6,661 (92.6%) had RC. After matching, each arm had 471 patients and the median OS for the PC and the RC cohort was 48.7 and 43.3 months, respectively (p=0.30).

**CONCLUSION:**

In our study on T2 tumors <5cm, PC and RC had similar OS. This suggests that PC could be considered as a viable bladder preservation option for carefully selected elderly individuals.

Bladder Cancer, Histological Trends in the UAE Population: Tawam Hospital Experience as a tertiary referral centre.

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## **Introduction & Objectives**

To demonstrate the histological trends and variations amongst UAE population in the cohort of the patients presenting to Tawam hospital as a tertiary referral centre. The majority of the population with United Arab Emirates constitutes of expatriate group and a very different picture of the histological trends was observed compared to reported literature which prompted this study.

## **Materials & Methods**

Record of 213 patients were reviewed, undergoing Transurethral resection of the bladder tumour (TURBT). This included all of transurethral resections of the bladder tumour performed during the period of January 2019 till 31st of Sep 2023. Histology report were analysed for the tumour type, tumour grade and depth of invasion along with operation notes for tumour size and focality (unifocal/multifocal), location and the findings of the bimanual examination. These cases were subsequently reviewed at the weekly urology MDT and reviewed by the MDT Uro-Pathologist.

## **Conclusions**

Patients referred to or presenting to Tawam Hospital, high-grade Non-Muscle Invasive Bladder Cancer (pT1 and pTa) most common histological variant in 108 out of 213 patients (50.69%). This was followed by high-grade Muscle invasive pT2. Tawam's experience of bladder cancer histology demonstrates different histological trends and variations compared to reported literature where the low-grade non-muscle carcinoma is considered to be most common variant. The majority of the population in UAE comprises of expatriate cohort, where life style, delayed presentation, prevalence of smoking might be contributory factors however initial observation needs wider perspective study for further analysis.

## Improving Day-Case Rates of Transurethral Resection of Bladder Tumors: How efficacious is a solitary educational afternoon in a District General Hospital?

Mehdi Nabavi<sup>1</sup>, Mohammed Quraishi<sup>2</sup>, Edward<sup>3</sup>

Calleja East Sussex Healthcare NHS Trust

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**Aim:** Initiatives such as Getting It Right First Time (GIRFT) underscore the importance of day case Transurethral Resection of Bladder Tumors (TURBTs) in patient care and addressing national waiting list crisis. Our quality improvement project aimed to assess the enhancement in day case rates of TURBTs through an educational afternoon on this topic delivered to the entire Urological unit including surgeons, nurses and ward staff.

**Method:**

A two-stage medical record review, conducted two months before and after the educational session, assessed day-case rates and surgical outcomes. Demographics and clinical parameters, including discharge date, surgeon grade, re-admissions, and post-operative complications, were collected.

**Results:**

Over a four-month study period, 72 patients underwent TURBTs, resulting in an overall day-case rate of 20.8%. Post-education implementation, actual day-case rates decreased from 24 to 18. A notable age discrepancy was observed between day-case (median 63.4) and in-patient cases (median 75.4). Thirty-day re-admission rates were found to be lower in the day-case TURBTs. Mean length of stay was 1.3 days for the cohort.

**Conclusions:**

Our study suggests that a solitary educational is insufficient to achieve a paradigm shift towards day-case TURBTs. The lower day-case rates in our cohort may be attributed to the elderly and co-morbid demographic of the region. Implementing a comprehensive and multidisciplinary day-case TURBT pathway could align us with national averages. We intend to re-evaluate our day case TURBT day-case services following the implementation of this streamlines bespoke day-case pathway.

## Risk of Progression of Primary Ta High Grade Bladder Tumors

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### **Aim:**

TaG3 bladder cancer is an under-investigated disease and because of its rarity it is commonly studied together with T1G3 disease. We sought to exclusively study TaG3 disease and to determine the factors associated with disease progression.

### **Method:**

Of 3505 patients with NMIBC, 285 patients had primary TaG3 and with no concomitant carcinoma in-situ. The median follow-up was 43 months; 70% of the patients received adjuvant BCG.

### **Results:**

Progression to  $\geq$ pT1 occurred in 21 patients (7.4%). In a multivariable competing-risk regression analysis, intravesical BCG was significantly associated with a lower risk of progression to  $\geq$ pT1 (HR 0.23, 95%CI 0.08-0.64,  $p=0.005$ ). Recurrence in the first year of diagnosis was significantly associated with an increased risk of stage progression to  $\geq$ pT1 (HR 7.81, 95%CI 2.50-24.44,  $p<0.001$ ). Progression to  $\geq$ T2 was observed in 9 patients (3.2%). In univariable competing-risk regression analyses, intravesical BCG was significantly associated with a lower risk of progression to  $\geq$ pT2 (HR 0.11, 95%CI 0.04-0.47,  $p=0.003$ ). On the other hand, recurrence in the first year of diagnosis was significantly associated with an increased risk of stage progression to  $\geq$ T2 (HR 7.12, 95%CI 1.50-33.77,  $p=0.013$ ). In a subgroup of 199 patients who were treated with BCG, there was no statistically significant association between tumor recurrence in the 1st year of diagnosis and stage progression to  $\geq$ pT1 ( $p=0.14$ ) or  $\geq$ pT2 ( $p=0.19$ ).

### **Conclusion:**

TaG3 bladder cancer are considered high risk but if appropriately treated with BCG that risk is considerably mitigated. Recurrence in the first year is the strongest predictor of progression

## Extended Hospital Stays: Awaiting Social Care Packages - An Interim Challenge or a New Norm?

Mehdi Nabavi<sup>1</sup>, Mohammed Quraishi<sup>2</sup>

East Sussex Healthcare NHS Trust, East Sussex Healthcare NHS Trust

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**Aim:** This study, conducted in a urology ward at Eastbourne DGH, delves into the consequences of delayed social care package preparations on patient bed occupancy, particularly focusing on medically fit patients awaiting social care.

**Methodology:** Patient records from Mitchelham Ward underwent scrutiny from July 1 to August 31, classifying bed occupancy into medical and social reasons. Inclusion criteria relied on the doctor's 'Medically Fit for Discharge' (MFFD) notation.

**Findings:** In July and August, MFFD patients occupied 10.75% and 0.77% of bed days, averaging 5.9%. This monthly incongruity emphasizes the necessity for further investigation. The economic burden and health risks associated with medically fit patients incur an estimated £450 per bed day, resulting in a monthly expenditure exceeding £7,000 in Mitchelham Ward.

**Conclusions:** The predicament of patients awaiting social care packages is an escalating concern nationwide. Local resolution requires heightened collaboration with social care services. Acknowledging the economic and health risks, healthcare workers should implement safety measures and specialized care. Urgent proactive measures are indispensable at both local and broader healthcare levels.

## RenalCare Pro: Your Comprehensive Solution for Renal Cancer Management

**Faisal Alhajeri<sup>1</sup>, Ali Al Moumen<sup>2</sup>, Ahmad Alharmi<sup>3</sup>, Dalal Alhusainan<sup>4</sup>  
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In the dynamic landscape of healthcare, effective patient care demands continuous integration of the latest advancements. Renal cancer poses unique challenges that require accurate diagnosis, risk assessment, and treatment guidance for patients. This paper introduces RenalCare Pro, an innovative application designed to streamline and classify the management of renal cancer patients, ensuring optimal care standards.

Its compatibility across various operating systems makes it easily accessible. RenalCare Pro incorporates Nephrometry scoring systems, American Urological Association (AUA), and National Comprehensive Cancer Network (NCCN) guidelines for diagnosis, risk stratification, and surveillance. Additionally, the application addresses metastatic cases using risk models and aligns strategies with NCCN guidelines.

A survey instrument was deployed to 20 urologists in Saudi Arabia to assess RenalCare Pro's impact. Results indicate that 75% of respondents view the application as indispensable, 85% believe it standardizes care, and an equal percentage attest to its potential in enhancing temporal efficiency. A significant 70% express an intent to recommend RenalCare Pro, while 65% believe it enhances patient compliance with surveillance protocols.

In conclusion, RenalCare Pro emerges as a valuable asset in renal cancer care, providing advanced diagnostic tools, guideline adherence, streamlined management, and improved patient compliance. Urologists' feedback underscores its crucial role, ushering in a new era of precision in renal cancer diagnosis, management, and follow-up, promising enhanced outcomes and patient well-being and compliance.

## The Ultimate Testicular Cancer Management App: Your Comprehensive Solution for Standardized Care

**Faisal Alhajeri<sup>1</sup>, Ali Al Moumen<sup>2</sup>, Ahmad Alharmi<sup>3</sup>, Dalal Alhusainan<sup>4</sup>  
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This abstract presents an innovative Testicular Cancer management app designed to revolutionize patient care. Integrated with the esteemed NCCN Guidelines for Risk Stratification, Management, and Surveillance, and the Princess Margaret Cancer Centre Guidelines, the app aims to standardize and streamline care across platforms. It empowers healthcare professionals and patients, ensuring adherence to the highest clinical standards and providing a user-friendly interface.

The app's development involved a meticulous integration of NCCN and Princess Margaret Cancer Centre Guidelines, with algorithms aligning precisely with risk assessment criteria. A user feedback questionnaire distributed to 25 urologists in Saudi Arabia guided iterative development cycles, refining the app's interface and functionalities. A structured questionnaire administered to 13 urologists further assessed usability, effectiveness, and clinical impact through statistical analysis.

Surveyed urologists expressed overall satisfaction with the app's usability (69%), effectiveness (77%), and positive clinical impact (92%). The majority endorsed its ability to deliver accurate risk stratification, provide suitable management recommendations, and positively influence patient outcomes, emphasizing its potential as a valuable tool in optimizing patient care and adherence to established protocols.

The comprehensive app, integrating NCCN and Princess Margaret Cancer Centre Guidelines, plays an important role in transforming the landscape of Testicular Cancer diagnosis, management, and follow-up. The app stands as a beacon of precision in diagnosis, facilitating accurate risk assessment and timely, tailored treatment decisions. The incorporation of surveillance protocols signifies a commitment to continuous care, enhancing patient outcomes and cultivating reassurance among patients in their post-treatment journey.

## The Ultimate Bladder Cancer Management App: Your Comprehensive Solution for Standardized Care

**Ali Al Moumen<sup>1</sup>, Ahmad Alharmi<sup>2</sup>, Dalal Alhusainan<sup>3</sup>, Falah Alhajraf<sup>4</sup>  
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Kuwait Institute for Medical Specializations, Kuwait, Al-Adan Hospital, Kuwait, Al-Adan Hospital, Kuwait, Al-Jahra Hospital, Kuwait, Kuwait Institute for Medical Specializations, Kuwait, Al-Adan Hospital, Kuwait

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### **Introduction:**

Bladder cancer stands as the most prevalent malignancy within the urinary tract. The clinical approach to this disease has remained unchanged for several years. However, the amalgamation of new technology and updated guidelines has facilitated the creation of an easily accessible tool for healthcare workers and patients to adhere to a clear management plan.

### **Objective:**

The 'Ultimate Bladder Cancer Management App' is an up-to-date application that delineates a comprehensive management plan for both doctors and patients from the time of diagnosis. Drawing from the National Comprehensive Cancer Network (NCCN) guidelines, the application offers meticulous management plans encompassing risk-stratification, recommendations for intra-vesical therapy, and surveillance protocols.

### **Method:**

A preliminary version of the application was provided to 25 Urologists in Saudi Arabia for assessment. A questionnaire was utilized to gauge their experience, focusing particularly on the application's effectiveness and potential impact on current clinical practice.

### **Results:**

68% of the participants rated the application as easy-to-use and suggested minor changes. 84% believed that the provided plans were accurately aligned with the NCCN guidelines. Moreover, 80% expressed confidence that the App would enhance patient compliance with the management plans.

**Conclusion:**

The current version of the 'Ultimate Bladder Cancer Management App' proved satisfactory in terms of its usability, effectiveness, and clinical impact. Overall, the application could be integrated as a valuable resource in managing bladder cancer in Saudi Arabia. The feedback gathered in this study, along with future input, will significantly contribute to the continuous development cycle of the application.

**Urologists insight on ProstateCare: a Comprehensive Solution for Localized Prostate Cancer Management**

**Dalal Alhusainan<sup>1</sup>, Falah Alhajraf<sup>2</sup>, Faisal Alhajeri<sup>3</sup>, Ali Al Moumen<sup>4</sup>  
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**Introduction:**

We present ProstateCare, an application designed to revolutionize the approach of physicians to caring for and treating localized prostate cancer patients. ProstateCare (PC) is a versatile, user-friendly app that caters to patients, caregivers, and healthcare professionals, offering a standardized and comprehensive approach to managing prostate cancer. PC is compatible with desktops, iOS, and Android devices, ensuring accessibility for physicians to access the latest guidelines. It encompasses several features, including the PSA KINETICS calculator, the American Urological Association, and the National Comprehensive Cancer Network Guidelines for risk stratification and management of localized prostate cancer, along with direct links to other essential resources.

**Materials and Methods:**

A survey was distributed to a sample cohort comprising 30 urologists in the Kingdom of Saudi Arabia to evaluate their perspectives and impressions regarding the ProstateCare application.

**Results:**

83.3% of the urologists expressed a strong belief that ProstateCare would serve as an indispensable tool in clinical practice. 90% of the urologists recognized that PC could standardize the management of prostate cancer cases. 27 out of 30 respondents agreed that integrating PC into their practice would enhance efficiency. Moreover, 24 out of 30 participating urologists intend to recommend the PC app to

their resident physicians. Additionally, 76.7% of participants believed that PC could improve patient compliance with surveillance protocols.

**Conclusion:**

Utilizing the ProstateCare App can significantly aid in the management of prostate cancer by standardizing care, streamlining clinic operations, and educating future health professionals.

**The Impact of Radical Nephrectomy on Kidney Function. A Cohort Study Examining Clinical and Perioperative Parameters**

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**Background:**

Radical nephrectomy (RN) stands as a well-established intervention for the management of renal cell carcinoma (RCC), yet the risk of chronic kidney disease (CKD) post-surgery remains a focal point of concern. This study endeavors to inspect the risk factors associated with the development of CKD in patients subjected to RN for localized RCC.

**Methods**

A retrospective cohort study included all patients  $\geq 18$  years who underwent RN for a renal tumor. Only patients with preoperative eGFR  $\geq 60$  were included. Clinical data were collected pre-, intra-, and postoperatively. All risk variables were summarized using descriptive statistics expressed as mean and SD. Univariate analysis and multivariate analysis were used. P-value  $< 0.05$  is considered statistically significant.

**Results:**

Among 135 patients (54.1% male; mean follow-up 32.8 months), 28.1% developed renal impairment. Preoperatively, age  $> 65$ , male gender, higher body weight, hypertension, Charlson comorbidity index, lower hemoglobin, and eGFR were associated with renal impairment. Intraoperatively, nadir MAP and albumin transfusion volume were significant risk factors. Postoperatively, lower eGFR within 48 hours

was the sole significant risk factor. Multivariate analysis highlighted preoperative eGFR and postoperative eGFR within 48 hours as predictors of the latest follow-up eGFR

**Conclusions:**

The preoperative risk factors include age, male gender, higher body weight, hypertension, and comorbidity score. Intraoperative modifiable risk factors that may cause renal impairment are low intraoperative MAP and the need for albumin use. Significant risk factors for renal impairment after RN are the preoperative and the immediate postoperative eGFR.

**Preserving Renal Function without Compromising Oncological Outcomes: A Comparative Study of Partial and Total Nephrectomies in T3 Stage Renal Cell Carcinoma**

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The utility of partial nephrectomy (PN) in locally advanced, stage T3 renal cell carcinoma (RCC) is controversial. This retrospective study aimed to review the oncological and functional outcomes of patients with T3a RCC who underwent PN. We included all patients with pT3a stage

RCC undergoing either open, laparoscopic, or robotic PN at our center between January 2015 and 2023. A Wilcoxon rank sum test was utilized to compare nephrectomy types (radical nephrectomy [RN] vs PN). Survival analysis was conducted using Kaplan–Meier plots and a log-rank test. P-value < 0.05 indicated statistical significance. There were no significant differences in demographic characteristics between the RN and PN groups, except age (53.0 vs 6.5, respectively; P = 0.012) and body mass index (28.7 vs 34.3, respectively; P = 0.020). Furthermore, there were also no significant differences in the rates of local recurrence (P = 0.597), metastatic progression (P = 0.129), and chemotherapy use (P = 0.367) between nephrectomy types. Patient survival did not differ significantly based on the type of nephrectomy (log-rank P-value = 0.852). Together, our findings indicated that PN and RN yield near-equivalent oncological outcomes in terms of local recurrence, metastasis, and overall survival rates among pT3a RCC patients during a nearly 3-year follow-up period.

#### **Horological Actual tumor size in comparison to imaging: A cross sectional study**

**ABDULLATIF ALHASSAN<sup>1</sup>, ABDULAZIZ ALBALAWI<sup>2</sup>, ABDULAZIZ HAZZA, HISHA GHABBAN<sup>3</sup>**

KING SULTAN MILITARY HOSPITAL

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A number of studies have reported discrepancies between the actual tumor size and the size determined through imaging, which can prove to be a crucial aspect in determining a concrete diagnosis. Through this study, therefore, we aimed to investigate if these discrepancies affect tumor margins and the complication and safety profile with recurrence in renal tumors. We recruited 51 patients, with the majority being males (74.5%). The tumors were classified based on their growth type, proximity to the collecting system, and location relative to the polar line. Various other parameters such as blood transfusion, urine leakage, surgical margin, tumor stage, and recurrence were also recorded. The radiological and pathological sizes of the tumors were compared, and their correlation was determined using Spearman's rank correlation coefficient and Chronbach's Alpha.

Results: The findings revealed a strong correlation between the radiological and pathological sizes of the tumors (correlation coefficient = 0.863, p-value < 0.001), with significant agreement (Chronbach's Alpha = 0.894). The majority of the tumors were more than 50% exophytic and were located closer to the collecting system (Point 1). The surgical margin was negative in 74.5% of the cases and positive in 25.5% of the cases. Among the tumors, 76.5% were malignant, and no cases of recurrence were observed.

These results suggest that imaging can be a reliable method for assessing tumor size in the context of surgical planning and prognosis.

## **Transperineal Prostate Biopsy under Local Anesthesia: Initial experience in Saudi Arabia**

**Abdulrahman AlMuhrij, Bikheet AlMatar, Yousef AlSowayan**

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### **Introduction:**

Prostate cancer is common, is the fourth common cancer in males counting 6.25% of all male cancer and the second most common of cancer in males aged 60 year old or older in Saudi Arabia. Screening for prostate cancer has multiple tools including digital rectal examination and serum prostate specific antigen.

A lot of improvements happened in diagnosing then confirming prostate cancer, yet still having a prostate tissue is one of the main criteria to decide how to manage it and to predict the prognosis.

### **Aim:**

This study aim to evaluate the outcome and safety of Transperineal Prostate Biopsy under Local Anesthesia in outpatient.

**Method:**

A prospective single-center study in King Fahad Specialist Hospital. The study included patients between June and December 2023 who underwent Free Hand Transperineal Prostate Biopsy. It is an outpatient procedure done under local anesthesia with no need of prior antibiotics.

**Result:**

The study included 10 patients. The average PSA was 17.6 ng/ml. ISUP 2 found in 30%, ISUP 4 in 20% and ISUP 5 in 20%.

The average of pain analogue score was 3.7 out of 10. 90% of patients would accept repeat the same biopsy in the future if needed. No patient developed UTI or urinary retention. 2 opatients reported hematuria.

**Conclusion:**

Although our number is small but it is in line with currently available data and confirms that transperineal prostate biopsy under local anesthesia is safe, well tolerated and feasible in outpatient procedure room.

**Hematologic malignancy with primary genitourinary tract presentation**

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Hematologic malignant disorders can manifest in various ways, including rare involvement of the genitourinary tract. These may involve kidneys,bladder or testes but are extremely rare. Understanding and diagnosing these manifestations are crucial for appropriate diagnosis and proper management .

Objective: Our aim is to explore the genitourinary involvements seen as primary presentation in hematologic malignancy in our hospital

Material and Methods: This case series include of 4 cases all of them showed primary urologic presentation and proved by investigations to harbor hematologic malignancy .

**Results:**

Case 1: Bladder mass obstructing the left vesicoureteric junction, with hydroureteronephrosis with multiple enlarged lymph nodes surrounding major blood vessels. Cystoscopic biopsies revealed diffuse large B-cell lymphoma.

Case 2: Left testicular pain and swelling showed heterogeneous texture and absent blood flow on doppler ultrasound. Left high inguinal orchiectomy confirmed diffuse large B-cell lymphoma. The patient started systemic treatment using the R-CHOP regimen.

Case 3: A 7-year-old male presented with bilateral cervical lymph node enlargement, fever, hepatosplenomegaly and priapism. Laboratory findings indicated pancytopenia . Bone marrow aspiration confirmed Acute Lymphoblastic Leukemia (ALL). The patient underwent the AALL11231 protocol and experienced resolution of priapism.

Case 4: An 8-year-old male presented with bilateral testicular swelling, very high leucocytic count with low RBCs and platelet counts. Scrotal doppler ultrasound revealed enlarged, diffusely hypoechoic hypervascular testes. Abdominal ultrasound confirmed hepatosplenomegaly. Bone marrow aspiration confirmed the diagnosis of ALL.

**Conclusion :**

We highlight importance of recognizing the rare but distinct possibility of genito-urologic organ involvement as primary presentation for hematologic malignancy.

**Initial Outcomes of Freehand Transperineal Biopsies Regarding Diagnostic Value and Safety: An Early Experience at King Fahad Specialist Hospital, Buraydah, Saudi Arabia**

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The aim of this study is to determine the diagnostic value and safety of freehand transperineal prostate biopsy in patients with an elevated prostatic specific antigen (PSA) and/or abnormal digital rectal exam in King Fahad Specialist Hospital KFSH in Buraydah, Qassim region, Saudi Arabia.

**Methods:** This is an observational retrospective study of all patients (n=39) who underwent transperineal biopsies at KFSH to assess the diagnostic value and safety of the procedure.

**Results:** The mean age of the patients was 70.3 (SD 10.1) years. The most commonly found diagnosis was adenocarcinoma (61.5%), and incidence of complications was detected in (5.1%) of the patients.

**Conclusion:** We concluded that the freehand technique TPBx has a high accuracy rate in detecting prostatic cancer. However, the learning curve could be a limiting factor in implementing it. Increasing the number of biopsies could positively affect diagnostic accuracy, especially with our low complication rate in this procedure. A low number of biopsies in the older age group can give an accurate result with a low risk of complications. Although template-guided TPBx and robot-guided TPBx are better options, the freehand technique represents a cost-effective and time-saving alternative. However, more studies are needed to compare the outcome of such a technique.

Effect of dominant hand practice among Saudi urology physicians Dominant hand in practice among Saudi urology physicians

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**Aim:**

Insufficient literature exists regarding the effects of left-handedness on urology surgeons and trainees. Consequently, the purpose of this study was to assess the prevalence and perceived impact of handedness amongst urology surgeons and trainees.

**Methods:**

A cross-sectional study was conducted at multiple hospital centers throughout Saudi Arabia. By means of in-person and telephone interviews utilizing a standardized, validated questionnaire, 86 urology surgery trainers and trainees participated in the study to determine the prevalence and impact of handedness on their practice.

**Results:**

A total of 86 trainers and trainees were involved in this study, of which 81 were male and 5 were female. Left-handedness was observed in only 12.79% of the population; the remaining individuals were all right-handed. Fifteen members (17.44%) of the sample encountered challenges while practicing. Out of the total number of trainers surveyed, only 25 (40.3%) reported that their instructors demonstrated consideration for the challenges they encountered with their dominant hand and provided assistance. According to the majority of trainers (58.3%), the learner's dominant hand did not have any discernible impact on their learning trajectory.

**Conclusion:**

Right-handedness constitutes 87.21% of the total prevalence in urology surgery. Furthermore, it was noted that surgeons and trainees alike encountered difficulties when attempting to collaborate with an operating colleague who possessed an opposite hand dominance. Therefore, early in their training there may be advantages to coupling left-handed trainees with left-handed faculty surgeons to offer guidance and mentorship concerning the left-handedness execution of surgical procedures.

**Application of AI-generated 3D VR models in the surgical planning of robotic radical prostatectomy:  
Impact on urinary continence**

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**Objectives:** To prospectively assess the applicability of 3D-printed prostate models on surgical planning of nerve sparing (NS) robotic-assisted radical prostatectomy (RARP), and the impact of membranous urethral length (MUL) preservation of continence status.

**Methods:** Virtual 3D-printed models were performed for 30 patients with prostatic adenocarcinoma undergoing RARP. The concordance between tumor in 3D-reconstructed models and histopathology was assessed. Continence was evaluated using the Expanded Prostate Cancer Index Composite survey question about the number of pads or adult diapers used during the day to control leakage during the last 4 weeks. The restoration of urinary continence was defined as the use of no pads/no leakage of urine.

**Results:** Table 1 showed demographic and Perioperative data. Six cases (20%) had extraprostatic extension, which was correctly visualized in 3D models. Seminal vesicle invasion and positive surgical margin were comparable between 3D models and histopathology (16.7% vs. 23.3%,  $p=0.75$ ) and (20.0% vs. 16.7%,  $p=1.0$ ) respectively. The mean MUL in the 3D models was  $10\pm 4$  and  $15\pm 8$  mm in unilateral and bilateral NS groups, respectively ( $p=0.07$ ). Urinary continence was improved at 1- and 3-month postoperatively (13.3% and 66.7%, respectively). The mean number of pads significantly decreased ( $0.73\pm 1.2$  vs.  $3.0\pm 0.8$ ,  $p<0.001$ ). MUL measured by 3D-models negatively correlated with number of urine pads used at 3-month ( $R= - 0.72$ ).

**Conclusion:** 3D-printed prostate cancer models can positively impact quantitative patient outcomes, which may influence the decision of the nerve-sparing approach. The MUL measured by the 3D models may predict the early restoration of urinary continence after RARP.

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King Salman Armed Forces Hospital

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Testicular Cancer (TC) is the most frequent malignancy between the ages of 15-45 representing 1% of male cancer cases and 5% of urological malignancies. The incidence varies with ethnicity with higher incidence in high socio-economic countries. In KSA 1114 cases were reported from 2004- 2017 with highest prevalence in Northern province including Tabuk area which showed doubling of Age Specific Incidence Rate.

**Objective:**

Review of cases of TC admitted and operated at King Salman armed forces hospital with reference to histopathology, management and follow up

**Methods:**

Retrospective study including review of TC cases from year 2009-2023. The study included 35 patients. Complete records were available for 30 patients. Mean age 35.27 ranging from 21 - 67 years. Mean follow up was 2.4 years ranging from 2-12 years

**Results:**

Number of TC cases was 11 in the first 5 years, 7 in the next 5 years and became 17 in the last 5 years showing doubled prevalence in the last 5 years.

Histopathology showed seminoma 46.66%, non-seminoma 13.33 %, and Mixed Germ cell 36.67%, and one case large B-cell lymphoma. Sixteen cases ( 45.71%) involved left testes and 15 (42.86%) involved right testes. Four cases were bilateral (11.43%).

Post orchidectomy 16 patients received chemotherapy, one received radiotherapy and 18 were subjected to surveillance.

**Conclusion:**

Testicular tumors are highly prevalent among our locality. This prevalence was doubled in the last 5 years. Most of the tumors were seminoma. Most patients received chemotherapy, surveillance with good survival up to 12 years.

## Relations between Diabetes and urological malignancies in Saudi patients , our experience from general urology clinic

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King Fahad specialist hospital Dammam

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**Background** :Risk factors for diabetes render people more susceptible to cancer. Diabetes is of 17.7% prevalent in adult saudi patients.

This abstract elaborate that relations from follow up of patients seen primarily ,and followed in general urology clinic in KFSHD, presenting the strong relations between the diabetes, and clinical diagnosis of renal cell carcinoma in accidentally discovered renal masses.

**Methods & results** :This is a retrospective study trying find how prevalent is renal cancers in adult diabetic Saudi patients seen in our general urology clinic , in terms of epidemiology, clinical presentation, tumor size and clinical stage on presentation. results: A total of 115 with clinical diagnosis of Renal cancers between 2018 and 2023 were included .The mean age of the patients was 55 years .males represent (62%), almost 63% were incidentalomas ; 75% of renal cancers were diagnosed in diabetic patients.

The most frequent histopathological types were clear cell and chromophobe.

**Conclusion:** The relationship between diabetes and cancer is quite close, and we are expecting to face an increasing numbers of renal cancers with high prevalence of DM .

## Hypothesis and holistic knowledge of testicular torsion among general population of the Kingdom of Saudi Arabia

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**Background:** Testicular torsion is a serious condition that requires immediate medical attention. It occurs when the spermatic cord, which carries blood to the testicles, twists, reducing blood flow and oxygen to the testicle. This can lead to tissue death and loss of the testicle if not treated promptly. This study aims to explore the level of knowledge about testicular torsion among the general population in The Kingdom of Saudi Arabia.

**Materials and Methods:** A descriptive cross-sectional study was conducted using a randomized sample taken from the general population who fulfilled the inclusion criteria. The data was collected from participants using an electronic pre-structured questionnaire. The researchers developed the questionnaire through expert consultation and after an intensive literature review. Also, was reviewed using a panel of three experts for validation and applicability, after a pilot study the result of the reliability coefficient ( $\alpha$ -Cronbach's) was 0.74. The data was analyzed using SPSS version 25, and presented with percentages and frequencies. Chi-square and logistic regression were conducted and p-value  $\leq 0.05$  were considered statistically significant.

**Results:** a total of 732 participants were taken, most of them were male and their ages ranged between 18 and 30 years. Regarding testicular torsion knowledge more than half of the participants had a good knowledge (55%)

**Conclusion:** The study findings regarding the research participants were good. Most of the participants know that testicular torsion is an emergency case and they must go immediately to the hospital, with little awareness program the findings, will be much higher.

## Constipation and Lower Urinary Tract Dysfunction in Saudi Children - Insights from a Community Survey

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### Objectives:

To evaluate the correlation between constipation and lower urinary tract dysfunction (LUTD) in children in Saudi community.

### Patient and methods:

A questionnaire was distributed through social media regarding constipation in children in the school age (4-14) years. Questions were in simple straightforward Arabic language, including symptoms denoting constipation and symptoms of lower urinary tract dysfunction(LUTD). Children with ages below 4 or above 14 years were excluded together with incomplete forms.

### Results:

Out of 2017 participants, 1557 (729 girls and 828 boys), were included. 510 (32.8%) has constipation (272 boys 53.3%; 238 girls 46.7%). Of note, 68 participants (13.3%) answered the first questions denying constipation but with digging in questions, constipation was confirmed. 151(55.6%) of boys and 139 (58.6%) of girls have had LUTD, the most encountered was daytime storage symptoms. Of the included cohort, 18% sought medical advice.

### Conclusions:

Constipation in pediatric age group in Saudi Arabia is an underestimated problem commonly associated with LUTD. Raising community awareness regarding this problem, together with encouraging clinicians to discover it with detailed history, is expected to a significant solution.

## Management and Clinical Outcomes of Duplicated Renal Anomalies: A Single-Center Experience

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### Introduction:

Renal anomalies encompass a broad spectrum of conditions, necessitating a comprehensive investigation to understand their prevalence and associated complications. This retrospective study focuses on duplicated renal anomalies, specifically examining the prevalence of vesicoureteral reflux (VUR), ureteroceles, and the severity of hydronephrosis.

### Methods:

A retrospective study conducted from 2011 to 2020 involved the review of medical records for 65 patients. After excluding those with incomplete records or lost follow-ups, the analysis included 45 patients with duplex kidneys. Renal ultrasonography and voiding cystourethrography were utilized to assess hydronephrosis, dilated ureters, VUR, and ureteroceles.

### Results:

After a 4.5-year mean follow-up (3-9 years), the cohort included 25 girls and 20 boys, with 29 having unilateral cases and 16 bilateral. Median diagnosis age was 4 months. Hydronephrosis was in 68.8%, with 17 having low-grade and 14 high-grade hydronephrosis, all in upper moieties. Vesicoureteral reflux (VUR) occurred in 18 patients, mainly in lower moieties (44% grades 1&2, 33.3% grade 3, 22.7% grades 4&5). Ureterocele was in 9 patients, five experiencing recurrent UTIs needing endoscopic interventions. Notably, two patients developed high-grade upper moiety VUR, requiring open reimplantations.

### Conclusions:

This study sheds light on the prevalence and associated complications of duplicated renal anomalies, revealing varying incidences of VUR, ureteroceles, and hydronephrosis severity. The complexity of these conditions underscores the importance of tailored diagnostic and therapeutic approaches, contributing valuable insights for enhanced patient care and outcomes in urological practice.

## **Children with congenital unilateral pelvi-ureteric junction obstruction(PUJO): time from clinical suspicion to surgical incision, and its impact on clinical outcomes**

**MoathQarmush<sup>1</sup>, Ahmed Elhelaly<sup>2</sup>, Mohammed Alhagbani<sup>3</sup>, Abdulhakim Alotay<sup>4</sup>, Hamdan Alhazmi<sup>5</sup>**

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### **Objectives:**

The focus of our study is to explore the impact of the timing of surgery on clinical outcomes in children with unilateral congenital PUJO.

### **Materials & Methods:**

A retrospective study on 130 patients diagnosed with congenital PUJO (2000-2015) focused on unilateral cases undergoing open dismembered pyeloplasty with stenting. Exclusions were bilateral PUJO, solitary kidney, dilated ureter, vesicoureteral reflux, and missed follow-ups. The cohort, split into Groups A (surgery before age one) and B (surgery after age one), assessed parameters: hydronephrosis (HN) grade, changes in differential renal function (DRF), and diuretic renography (DR) excretory curves.

### **Results:**

Ninety-five patients were analyzed, with Group A (42 patients, median age at surgery: 7 months) and Group B (53 patients, median age at surgery: 3.5 years). After an average follow-up of 3.2 years, the resolution, downgrading, and stability rates of HN were comparable in both groups. Post-surgery time-to-resolution of HN was significantly shorter in Group A. Follow-up DR revealed similar trends in DRF changes between the groups, with a small subset requiring re-intervention due to obstructive DR curves and worsening HN.

### **Conclusions:**

The timing of pyeloplasty did not significantly impact postoperative hydronephrosis, DRF, or the rate of redo surgery in children with unilateral congenital PUJO. However, early intervention may reduce the need for repeated diagnostic assessments, alleviate economic burdens, and decrease overall family anxiety, potentially leading to swifter postoperative resolution of HN.

## Assessing the awareness, knowledge, and attitudes of adults in the general population of Saudi Arabia toward testicular torsion: A cross-sectional study

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IMSIU, PSMMC, IMSIU, IMSIU, IMSIU, PSMMC

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### **Aim**

Our study aimed to measure the awareness, knowledge, and attitude toward testicular torsion (TT) among the general population in Saudi Arabia.

### **Subject and methods**

This is a cross-sectional study conducted among the general population living in Saudi Arabia. A self-administered questionnaire was distributed among the population using an online survey. The questionnaire includes socio-demographic characteristics (i.e., age, gender, region, etc.), a questionnaire to assess the knowledge of testicular torsion, and questionnaires to assess the prevalence, management, and attitude toward testicular torsion.

### **Results**

Of the 473 participants, 56% were males, and 61% were aged between 18 to 30 years old. Unfortunately, One quarter of our population has a good knowledge level about testicular torsion. The overall mean knowledge about Testicular Torsion score was below average (3 out of 8 points). Factors associated with increased knowledge include younger age, male gender, living in the Central Region, working in the medical field, having heard of testicular torsion, and having a personal or family history of testicular torsion.

### **Conclusion**

In conclusion, there was a lack of testicular torsion knowledge among the general population. Further studies and social campaigns should be done to encourage the general population's understanding and increase their knowledge level.

### **Keywords**

Testicular Torsion, Awareness, Knowledge, Male, Saudi Arabia, Urology, Urology Emergency, Education, Surgical Emergencies.

### Self Vs Assisted clean intermittent catheterization in MMC patients

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KFSH-D, PSMMC-Riyadh, PSMMC-riyadh, KFSH-D

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#### **Purpose:**

Patients with neurogenic bladder secondary to MMC comprise of significant number of patients seen in pediatric urology clinics.

In this study we wanted to see if there is a difference in self vs assisted catheterization in term of compliance, continence and UTI episodes.

#### **Methods/materials:**

We retrospectively evaluated 130 patients who had MMC. We excluded those who were not doing CIC, had missing data. Total of 80 patients were included, 26 (32.5%) patients were doing CIC independently and 54 (67.5%) patients had their care giver do the CIC.

We evaluated the patients in term of frequency of CIC, compliance, continent status, number of UTI episodes and Imaging on follow up.

#### **Results:**

80 patients were doing CIC. 26 (32.5%) patients were doing CIC independently and 54 (67.5%) patients had their care giver do the CIC. Out of the 26 patients 23 (88.5%) were compliant and 17 (65%) were continent between catheterization. Symptomatic UTI seen in 5 (19.2%) patients, 3 of them were non-compliant to CIC, 13 patients had no Hydronephrosis on follow up (50%).

54 patients had the catheterization done by care giver; 39 (72.2%) patients were compliant with CIC, and 23 (42.5%) were continent between catheterization. 17 (31.4%) patients had symptomatic UTI episodes. 30 (55%) patients had no Hydronephrosis on follow up.

**Conclusion:**

We need to encourage patients who are capable of self-dependence to do CIC on their own as it increases the compliance of the patients as well as improve the continence status and reduces the UTI episodes.

**Ureterocystoplasty in Pediatric Patients Undergoing Kidney Transplant: A Single Center Experience.**

**Abdulmohsin Alfaddagh<sup>1</sup>, Osama Sarhan<sup>2</sup>, Fouad Alkawai<sup>3</sup>, Helmy Omar<sup>4</sup>, Abdullah Alquhaibi<sup>5</sup>**

KFSH-D

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**Introduction:**

Kidney transplantation is the gold standard treatment for ESRD. Ureterocystoplasty has emerged as a procedure that can increase the bladder capacity and improves bladder compliance without having the complications of enterocystoplasty.

**Methods:**

We Retrospectively evaluated 7 patients who underwent ureterocystoplasty in preparation of Renal transplant for Patients with ESRD from 2020 to 2023. All patients were in ESRD 2ry to Primary urological disease.

The primary outcome was to determine if using the Ureter in patients with impaired bladder capacity and or function will lead to an improvement in Bladder function

**Results:**

All patients underwent living related renal Transplant, with Date of transplant from 2021 to 2023. Ureterocystoplasty was carried prior to Transplant in all patients except one and average wait time between surgeries was 2.5 months. All patients had High grade VUR (IV-V) and the average ureter diameter was 1.6cm (1-2.6). The pre cystoplasty bladder capacity was 140 (50-200) and bladder compliance was (4-35) cmH<sub>2</sub>O. Post cystoplasty bladder capacity increased to 400cc (150-600) 285%. No patient had Hydronephrosis in the transplanted kidney. And All patients had normal graft function. 2 patients Developed UTIs post-transplant and treated with Antibiotics. All patients are on CIC of which 3 are voiding per urethra with minimal Post void residual (20-40cc) and all patients are continent.

**Conclusion:**

Ureterocystoplasty is a valuable technique in the management of patients with complex urinary tract anomalies who require transplantation. It can help in optimizing the bladder for transplantation and avoids major complications as well as keeps bladder function.

**Role of pelvic floor biofeedback therapy (PFBT) in the management of dysfunctional voiding in children**

**Ahlam Shahrani<sup>1</sup>, Amr Hodhod<sup>2</sup>, Yasser Jamalalail<sup>3</sup>, FayezaI Modhen<sup>4</sup>, Tariq Burki<sup>5</sup>, Abdullah Alageel<sup>6</sup>, Abdullah Alsufyani<sup>7</sup>, Wael Moneir<sup>8</sup>, Abdulwahab Alhams<sup>9</sup>, Hanan Ibrahim<sup>10</sup>, Ivy Biteranta<sup>11</sup>, Marivic Lopez<sup>12</sup>, AhmedAlshammari<sup>13</sup>**

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**Introduction:**

Dysfunctional voiding (DV) represents a urinary voiding disorder characterized by the inability to achieve relaxation of the urethral sphincter/pelvic floor during micturition. Pelvic floor biofeedback (PFBT) emerges as a promising urotherapeutic tool facilitating the relaxation of sphincters in young children during voiding. In this study, we aim to present our short-term results in treating DV using PFBT.

**Patients and methods:**

We conducted a retrospective analysis of patient's charts presented with DV from 2016 to 2023. Patients' demographics, associated lower urinary tract symptoms, and post-void residual were systematically documented. Moreover, the number of PFBT sessions, response to treatment as well as relapses were collected. Complete Improvement was characterized by the complete resolution of symptoms concomitant with the absence of electromyographic (EMG) activity, while partial improvement denoted a minimum 50% reduction in symptoms.

**Results:**

A total of 34 patients were included. About 60% of patients had significant PVR (Table 1). The patient had a median of 5 sessions. Remarkably, approximately 70% of patients achieved complete symptom resolution, with a corresponding relapse rate of 8.3%. Among those demonstrating complete improvement, 65% presented with a staccato curve initially, while the remainder exhibited interrupted curves ( $p=0.39$ ). None of the patients experiencing complete improvement exhibited persistent PVR, in contrast to a single patient with partial improvement who demonstrated sustained high post-void residual. Relapsed patients underwent additional PFBT sessions, resulting in partial improvement in both cases.

**Conclusion:**

PFBT is a feasible alternative for dysfunctional voiding with a 70% success rate and acceptable relapse rate.

**Conservative management of Isolated Hydronephrosis. How long does it take to resolve?**

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**Introduction:**

Isolated hydronephrosis is recognized as a prominent etiological factor contributing to Antenatal Hydronephrosis. Conservative management predominates in the treatment of the majority of patients. In this study, we assessed the time required for hydronephrosis resolution as well as the risk of febrile UTI (FUTI) and surgical intervention.

**Patients and methods:**

We retrospectively reviewed patients' charts who presented with antenatally-detected hydronephrosis from 2010-2020. Patient's demographics were collected. Ultrasound images were reviewed and hydronephrosis was graded using the SFU grading. Resolved hydronephrosis is defined as no calyceal dilation with Antero-posterior diameter <10mm at 2 consecutive ultrasounds. The FUTI occurrence or surgical intervention was recorded.

### **Results:**

347 patients (504 units) were included. The median follow-up was 22.9 months (4.07-157.6). Eighty-seven percent of units showed to be resolved or improved (Table 1). Thirty-five percent of grade-4 units were worsened and the same percentage resolved ( $p=0.9$ ). The Kaplan-Meier analysis (Figure-1) showed a significant difference between different grades in terms of resolution ( $p<0.001$ ). Grade-1 units showed to be resolved before the age of one-year while those with grade-4 showed to be resolved after the age of 4.6 years ( $p<0.001$ ). Twelve units had worsening hydronephrosis. These units were either grade-3 or grade-4 and all underwent pyeloplasty at a median age of 15.2 months. Twenty-six patients (7.5%) experienced FUTI. The SFU grade was not associated with the incidence of FUTI ( $p=66$ ).

### **Conclusion:**

The majority of low-grade HN resolved in the first 2-years of life. Half of grade 3 and one-third of grade 4 had complete resolution at 28 and 56 months consecutively.

## **THE AGE AT DEFLUX INJECTION CAN PREDICT THE OUTCOME OF SUBURETERAL TRANSURETHRAL INJECTION (STING PROCEDURE) FOR PATIENTS WITH VESICoureTERIC REFLUX (VUR)**

**Amr Hodhod<sup>1</sup>, Abdullah Alageel<sup>2</sup>, Fayez Al Modhen<sup>3</sup>, Fayez Al Modhen<sup>4</sup>, Carolina Fermin-Risso<sup>5</sup>, Anthony Cook<sup>6</sup>, Tariq Burki<sup>7</sup>, Abdullah Alsufyani<sup>8</sup>, Wael Moneir<sup>9</sup>, Abdulwahab Alhams<sup>10</sup>, Bryce Weber<sup>11</sup>, Ahmed Alshammari<sup>12</sup>**

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### **Introduction:**

Deflux injections have exhibited favorable outcomes in averting Febrile UTI (FUTI) and reducing the morbidity associated with VUR surgical interventions. We hypothesize that Deflux injection before the age of 1-year may demonstrate a higher likelihood of subsequent injections than those who had injections at older age.

### **Patients and methods:**

A retrospective analysis of patients who underwent Deflux injections for VUR was conducted from 2010-2020. We included patients subjected to a minimum of 24-months of post-injection follow-up and excluded patients with neurogenic bladder. We collected patients' gender, side, laterality, the grade of VUR and the injections number. Two groups were created according to the procedure success (Successful initial injection vs. Failed initial injection). Successful injection is defined as absence of post-injection FUTI while not under antibiotic prophylaxis.

**Results:**

We included 172 patients (189 units). Successful initial injection was observed in 125 patients (139 units) whereas 47 patients (50 units) had failed initial injection. It is noteworthy that 38.3% of patients presented in the first year of life had subsequently necessitated surgical interventions compared to 21.1% of patients older than 1 year ( $p=0.02$ ). Seventy-seven percent of patients who underwent injection >1 year-old had successful procedures compared to 47.8% for those had injection at a younger age ( $p=0.003$ ). The multivariate analysis showed that VUR grade and age at injection were independent predictors of failed injections.

**Conclusion:**

Deflux injection before the age of 1 was associated with a higher risk of recurrent FUTI. Both VUR grade and age at injection were independent predictors of procedure failure.

## Therapeutic Effects of Urethral Sphincter Botulinum Toxin A Injection on children with Dysfunctional Voiding

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**Purpose:** We investigated the role of botulinum toxin type A and urotherapy in the treatment of children with dysfunctional voiding.

**Materials and methods:** Prospective treatment was performed for voiding dysfunction in nine children (5 females and 4 male) with dysfunctional voiding refractory to standard urotherapy and alpha1-adrenergic blocking agents were included in the prospective clinical study. Botulinum toxin type A in a dose of 50 to 100 IU units was injected transperineally into the external urinary sphincter in females and trans urethral submucosal intrasphincteric cystoscopically in males. Bladder rehabilitation was introduced 2 weeks after botulinum toxin type A treatment. Uroflow studies with ultrasound residual urine volumes were obtained before and 6 months after treatment. All children were tested before and 6

months after treatment using the empirically designed International Reflux Study in Children modified questionnaire.

Results: After treatment the mean +/- SD voided volume increased from 194 +/- 60 to 240 +/- 83 ml ( $p < 0.05$ ) while post-void residual urine volume decreased from 49 +/- 30 to 18 +/- 12 ml ( $p < 0.05$ ).

Significant differences in other uroflowmetry parameters were not found. However, significant symptom score improvement was detected 6 months after treatment. No acute complications, such as general paralysis or respiratory depression

**Conclusions:** Our study demonstrates that the voiding mechanism in children with dysfunctional voiding refractory to standard therapy can be significantly improved and maintained at least 6 months after combined botulinum toxin type A injection and bladder rehabilitation.

Keywords: botulinum toxin A, dysfunctional voiding, neurogenic bladder.

## A retrospective analysis of ureteropelvic junction obstructions in patients with horseshoe kidney

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### **Background**

Ureteropelvic junction obstruction (UPJO) is often encountered in patients with a horseshoe kidney (HSK) and may require surgical intervention. This study retrospectively investigated obstruction causes in HSK patients with UPJOs to determine the most suitable surgical approach.

### **Methods**

Twenty HSK patients with UPJO who underwent pyeloplasty between July 2000 and June 2020 and were followed-up for more than six months in our institution were included in the study. The clinical characteristics, obstruction causes, and surgical outcomes were analyzed.

## Results

The median age at the time of the operation was 4.1 years (interquartile range (IQR): 1.8-10.6). Hydronephrosis (HN) was found prenatally in 5 patients (25.0 %). Pyeloplasty was performed by open, laparoscopic, and robotic techniques in 6, 10, and 4 patients, respectively. Sixteen patients (80.0 %) had high ureteral insertion. Twelve patients (60.0 %) had crossing vessels, and eight had a high ureteral insertion and crossing vessels. The median follow-up duration was 4.0 years (IQR: 1.8-8.9); no patient required additional surgery. The median differential renal function was 38.0 % (IQR: 16.9-43.0) preoperatively and 38.0 % (IQR: 13.3-48.2) postoperatively.

## Conclusions

UPJOs in HSKs were primarily caused by a high ureteral insertion and crossing vessels. Dismembered pyeloplasty was successfully performed in all surgical modalities such as the open, laparoscopic, and robotic approaches. Attention must be given to patients with HSKs, even in those without HN, to avoid UPJO development.

**Keywords:** Fused kidney, Hydronephrosis, Child, Kidney pelvis, Laparoscopy

Penoplasty for concealed penis in children: What are the results?

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## Purpose:

Concealed penis is a common problem in boys that causes a lot of anxiety to most of these children and their parents. In this study we have addressed the different types of these diseases and how to correct them.

## Methods:

Penoplasty with achieved via a circumferential incision below the glans combined with a ventral incision in the median raphe with degloving of the penis. The technical details will be described.

**Results:**

We included 28 patients. The mean age at surgery was 6.4 years. Transient penile oedema was evident in most of cases (22 patients 78.6%). There were two cases of penile hematoma (7.1%) who were successfully managed conservatively. We had also one case of wound infection that was treated well with oral antibiotics. The follow up of these patients (3 – 9 months) showed no recurrence

**Conclusion:**

Surgical correction of buried penis by the described procedure is a safe and effective procedure for management of these cases.

**Keywords:**

buried penis, concealed, penoplasty.

**Nocturnal Enuresis Symptoms and Risk Factors Among Children and Adolescents in Qassim Region, Saudi Arabia.**

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Collage of medicine, Qassim University · Buraydah, SAU, General Practitioner, Ministry of Health, Qassim Health Cluster, Associate professor of Biochemistry at Collage of medicine, Qassim University · Buraydah, SAU, General

The aim of this study is to evaluate the symptoms, assess the risk factors and address the response to different management types of nocturnal enuresis NE among children and adolescents living in Qassim region, Saudi Arabia.

**Methods:** A cross sectional descriptive study conducted among parents and caregivers of children and adolescents ranging from 5-18 years of age who experience NE and are living in Qassim region, Saudi Arabia. Data collected by using an online survey, effectively disseminated through a multitude of online platforms encompassing popular websites and social media channels.

**Results:** A total of 791 completed the survey with 173 respondents qualified for inclusion in the study. The participants had a mean age of 9.98 years. Notably, the prevalence of NE in our sample was 21.9%. Gender differences were significant, with a higher frequency observed in boys (68.8%) compared to girls (31.2%).

Positive family history and increased nighttime fluid intake were reported as associated factors. Comorbidities showed no significant association. Bladder muscle exercises were the most common treatment method, while pharmacological treatment was less frequently employed in our findings.

**Conclusion:** We concluded that the prevalence and impact of nocturnal enuresis among children and adolescents in the region is significant. The higher incidence in boys, coupled with factors such as positive family history and lower parental educational status, emphasizes the multifaceted nature of this condition. The substantial effect on families underscores the importance of early intervention and support.

Usefulness of Cystogram in Patients Diagnosed with Congenital Anomalies of Kidney and Urinary Tract

**Manerh Bin Mosa<sup>1</sup>, Faisal Balaraj<sup>2</sup>, Afrah Aldhowaian<sup>3</sup>, Mohammed Alrashed<sup>4</sup>, Fayez Almodhen<sup>5</sup>  
Ahmed Alshammari<sup>6</sup>, Yasser Jamalalail<sup>7</sup>, Tareq Burki<sup>8</sup>**

**Introduction:**

Cystogram are done in cases of congenital anomalies of kidney and urinary tract (CAKUT) due to concerns of associated vesicoureteral reflux (VUR). It's an invasive investigation with risks of infection and exposure to radiation. We hypothesized that cystogram in such cases should be avoided due to limited clinical implications.

**Objectives:**

Our aim was to assess the outcome of cystogram in patients with CAKUT.

**Methodology:**

We retrospectively reviewed charts of patients diagnosed with CAKUT (e.g. Multicystic kidney disease, ectopic kidney, horseshoe kidney... etc.) in our hospital between January 2010 until December 2022. We excluded cases of bilateral anomalies, neonatal deaths, and those who didn't have a cystogram.

**Results:**

A 306 patients were included. Ultrasound were done at a median age of 126 days. The kidneys were normal in 211 patients, 68 cases had G1-2 hydronephrosis (HDN), and 27 had G3-4 HDN. The bladder was reported normal in all cases. Eight patients had dilated ureters. The cystogram revealed 58 cases with VUR; Of those patients, 24 were mild VUR (G1-2), 18 cases were moderate VUR (G3), and 16 were severe (G4-5). Patients who had low grade VUR had either normal or mild HDN, and only 7 patients of those who had moderate to severe VUR had a moderate to severe HDN. Eight patients with VUR developed at least 1 episode of UTI, and six patients needed surgical intervention for VUR.

**Conclusion:**

Cystograms in CAKUT patients aren't needed unless ultrasonography shows significant HDN.

## Histopathological finding in ureteropelvic junction obstruction

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Turki alzhahrani<sup>5</sup>, Waseem aboulela<sup>6</sup>

king salman armed forces hospital

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Ureteropelvic junction obstruction (UPJO) is a well-recognized clinical entity, which results in impaired urine flow from the renal pelvis. UPJO is mainly a congenital condition.[1][2]

UPJO is common pathologic cause of antenatal hydronephrosis .

The causes of UPJO divided into intrinsic and extrinsic.

### **Aim**

Identify histopathology finding of our operated UPJO cases.

focusing on hypertrophic and fibrotic changes .the study aim to analyze the UPJO prevalence distributed by laterality , gender , age and the anterior posterior dimeter of the obstruction.

### **Method and material**

Data was collected from 2021to 2023. The study included a total of 23 patients, with 14 cases of left-sided obstruction and 9 cases of right-sided obstruction. Among the patients, 18 were male and 5 were female. The age range from 3 months to 16 years .The anterior-posterior diameter of the obstruction ranged from 0.9 to 4 cm.

### **Results:**

23 patients included in the study, hypertrophy in 18 cases (78%), while fibrosis in 5 cases (21%).Hypertrophy was higher in prevalence .14 cases was left side, 13 showed hypertrophy (92%), and 1 showed fibrosis (7%). Among the 9 right-sided cases, 5 exhibited hypertrophy (55%), and 4 showed fibrosis (44%).

hypertrophy was in 16 males (88%) and 2 females (40%), while fibrosis was in 2 males (11%) and 3 females (60%).

### **Conclusion:**

This study revealed a higher prevalence of hypertrophic changes compared to fibrotic changes in UPJO patients.

## Early Diagnosis and Treatment Outcomes of Fournier Gangrene in Riyadh, NGHHA 2015-2022.

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KSAU-HS, COM-R, KSAU-HS, COM-R, Department of urology, KAMC-R. KSAU-HS, COM-R. KAIMRC

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**Aim:** This study aims to evaluate the outcomes of early diagnosis and management of Fournier gangrene at KAMC in Riyadh, Saudi Arabia.

**Methods:** A retrospective cohort study was conducted at KAMC, Saudi Arabia. The study population included all adult patients diagnosed with Fournier gangrene between 2015 and 2022. Data analysis was performed using RStudio. Frequencies and percentages were used to present categorical data, while median and interquartile ranges were used to express numerical variables.

**Results:** The study included 41 patients with Fournier Gangrene, the majority (95.12%) being male with a median age of 60 years. The most prevalent comorbidity was diabetes mellitus, (85.37%). Ten patients presented to the hospital with sepsis, two of which were in shock. Within 90 days of admission 2 of them had expired. Making the mortality rate among septic patients to be 20%. The most frequent tissue culture finding was mixed organisms, followed by E. coli. Regarding empiric antibiotics, Tazocin was the most used accounting for 22.0%. The most frequently performed adjunctive procedure was the placement of a suprapubic catheter, accounting for 41.5%. Roughly 43.90% required blood transfusion. Within 90 days of admission, six patients had died which makes the mortality rate 14.6%. Four of which had died within 30 days of admission (9.76%).

**Conclusion:** The study identified demographic factors of patients who presented with the disease and provided the incidence, mortality rate, and outcomes of the disease. It also identified specifics of the pharmacological and surgical management and hospital course.

## Endoscopic Skin Graft Urethroplasty for Obliterated Urethra: A Novel Technique for Placement of a Free Partial/Full Thickness Skin Graft under Vision without External Fixation with Full Term Results

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Shalamar Hospital Lahore Pakistan, Punjab Rangers Teaching Hospital Lahore Pakistan<sup>1</sup>, College of Medicine, King Khalid University, Abha, KSA<sup>2</sup>, Benazir Bhutto Hospital Rawalpindi Punjab Pakistan, Punjab Rangers Teaching Hospital Lahore Pakistan<sup>3</sup>, Punjab Rangers Teaching Hospital Lahore Pakistan, Punjab Rangers Teaching Hospital Lahore Pakistan<sup>4</sup>

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### **Objective**

Open urethroplasty is considered to be the best technique for the treatment of urethral strictures. Urethral strictures affect 0.9% of men annually in the United States. Controversy remains regarding endoscopic management. This study evaluated the outcomes of patients who underwent endoscopic graft placement for obliterated urethral strictures.

### **Methods**

Between 1993 and 1998 (64 patients) and 1998-2008 (27 patients) were included in the study. The patients were admitted to Mansoorah Hospital Lahore, Hijaz Hospital Lahore, and Shalamar Hospital Lahore, Pakistan. All investigations were performed prior to the endoscopic procedures. After the endoscopic procedures, success was defined as acceptance of graft, patient gaining satisfactory stream, and passage of a 15.5Fr cystoscope sheath on follow-up visits at 2, 6, and 12 months.

### **Results**

Endoscopic graft placement results were promising and impressive. Of the 107 endoscopic urethroplasties performed in 91 patients with obliterated urethra. In our study at two months, 25% (23/91) of patients had full graft acceptance, while 75% (68/91) experienced partial acceptance. At six months, 44% (30/68) achieved full acceptance, and within 12 months, the remaining 32% (22/68) also achieved complete acceptance. Overall, the graft was taken up by 75(83%) patients, and 65 (72%) gained a satisfactory stream after the procedure.

### **Conclusion**

Our endoscopic urethroplasty technique (Farooq Endoscopic Urethroplasty Technique) for obliterated urethra is safe to perform with free partial- or full-thickness skin grafts under vision without external fixation and requires less expertise. This procedure is a cost-effective and safe alternative to conventional open urethroplasty for the obliterated urethra.

## Balloon Urethral Dilatation for Urethral Stricture Long-Term Outcome: Single Center Experience

Hossam S EL-Tholoth<sup>1</sup>, Tala Al-Afraa<sup>2</sup>

MSc, SUB

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### Introduction

Urethral stricture is a fibrosis leading narrowing of the urethral lumen usually treated by visual internal urethrotomy (VIU) sequential dilation by dilators, urethroplasty . Urethral balloon dilation is an infrequent technique .

Aim: our aim is to review the long-term outcome of high-pressure balloon dilation of urethral stricture

### Methods

Reviewing patients who underwent balloon urethral dilation between January 2018 to August 2021. Using high-pressure nephrolithotomy balloon 30 French under cystoscopic control using guide wire and pass the balloon over it then inflation of the balloon to the maximum for 2 minutes. Patient data collected, preoperative symptoms and uroflow and post void residual urine compared to post dilatation outcome. Complications and follow up recurrence reported.

### Results

During this period twenty one patients done with mean age 33.2+/-11.2 years old underwent balloon urethral dilatation with Operative time 15.5+/-5.7 mints. No intraoperative complication reported , no significant hematuria, no sepsis reported. Maximum uroflow improved from 7.1+/-1.04To 20.7+/-2.02 post void residual improved from 75.2+/-12.1ml To 27.9+/-13.6 ml, IPSS symptoms score improve from 19.8+/-1.5 to 5.9+/-0.9. no significant post-operative .Follow up duration 37.8+/-13.9 months . Only, 3 cases reported recurrence of the stricture one underwent urethroplasty with buccal graft without intraoperative difficulty reported Two patient after discussion of the options they asked to repeat balloon dilation again.

### Conclusion

High-pressure Balloon dilation is an easy, well-tolerated, low complications and effective method of management of urethral stricture with good long-term outcome. Further prospective studies with larger sample size needed to confirm its outcome.

## The impact of urethroplasty on erectile and ejaculatory function: patient-reported outcome

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Urology Department, King Khaled University Medical City, Abha, Saudi Arabia, Urology Department, Armed Forces Hospital Southern Region, Khamis Mushait, Saudi Arabia, Urology Department, King Fahad Central Hospital, Madinah, Saudi Arabia, Urology Department, King Faisal Medical City Southern Region, Abha, Saudi Arabia, College of Medicine, King Saud University, Riyadh, Saudi Arabia, Division of Urology, King Abdulaziz Medical City, MNGHA, Riyadh, Saudi Arabia.

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**Purpose:** This study aimed to compare the impact of urethral transection after different techniques of urethroplasty on erectile and ejaculatory function outcomes. **Materials and Methods:** We retrospectively reviewed from July 2017 to October 2022 at King Khalid University Hospital, and King Abdulaziz Medical City was included in this study. All patients who are > 18 years old and underwent urethral reconstructive surgery due to non-traumatic injury. We excluded patients with pelvic fractures and traumatic urethroplasty. All patients were interviewed with a validated Arabic version of the Male Sexual Health Questionnaire. Group I included patients who underwent transecting urethroplasty techniques. Group II included patients who underwent non-transecting urethroplasty techniques. **Result:** A total of 63 patients with an average age of  $36 \pm 12$  was included. Of which 27 (Group I) underwent Transected urethroplasty and 36 non-transected urethroplasty (Group II), with a mean follow-up of 24 months. The erection scale was significantly higher in Group I compared with Group II ( $12.690 \pm 3.1$  vs  $10.130 \pm 4.6$ ) ( $p = 0.011$ ), respectively. However, there was no significant difference in ejaculation and satisfaction scale between both groups ( $p = 0.853$  vs  $0.306$ ), respectively. In regard to ED bothered item 48% in group I compared to 63% of Group II, while EjD bothered item about 59.2% and 52% of group I and II, respectively did not bother at all. **Conclusions:** The erection score was significantly higher in the transected urethroplasty group. Nevertheless, both transected and non-transected were comparable in terms of ejaculation and satisfaction scores.

## Overview of Urologic Manifestations of Brucellosis

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King Abdulaziz Medical city, KAIMRC, King Saud bin Abdulaziz university for health sciences

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### **Background:**

Brucellosis is an endemic zoonotic infection which presents with focal disease in 30% of cases, with epididymo-orchitis being the most common urologic manifestation. This study aims to provide epidemiology, and treatment outcomes of urological manifestations of brucellosis at NGHHA in Riyadh, Saudi Arabia.

### **Methods:**

A retrospective chart review of electronic medical records was completed at King Abdulaziz Medical City between January 1, 2015 and December 1, 2024. Cases with objective evidence of brucellosis confirmed either by serology or culture were included. Variables on patient demographics, clinical manifestations, predisposing factors, treatment regimens, and outcomes were collected.

### **Results:**

In our case series, we examined 24 brucellosis patients with urologic complaints, predominantly epididymo-orchitis (96%). The mean age was 35, with an average BMI of 27.7. Notably, 70% had no comorbidities, while the rest had various medical conditions. A significant 75% had risk factors like raw milk consumption. Complications included abscess formation (12.5%) and testicular volume loss (8%). Treatment mainly involved a 6-week course of antibiotics such as streptomycin and doxycycline. Most patients (62.5%) were managed as outpatients, with 96% showing high agglutination titres and 16.6% having positive blood cultures for brucellosis.

### **Conclusion:**

In conclusion, this study emphasizes the important urologic presentations of brucellosis, the most common of which is epididymo-orchitis. It is important to suspect brucellosis in patients with epi-orchitis

with negative routine urine culture and risk factors for brucellosis. Overall, this study contributes valuable information for understanding and managing urologic complications associated with brucellosis.

### Outcomes of Using Buccal Mucosal Graft in Different Anterior Urethroplasty Techniques, a Single Surgeon Experience

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**Background:** This study aims to evaluate the outcomes of different buccal mucosal graft (BMG) urethroplasty techniques in treating anterior urethral stricture under a single urethral surgeon. Patients and methods: We retrospectively reviewed the records for 405 patients who underwent different BMG urethroplasty techniques for anterior urethral stricture were done by a single urethral surgeon between February 2013 and October 2023. The comparison between the study cohorts included patients' demographics, clinicopathological features of the urethral stricture, and success of urethroplasty.

**Results:** The urethroplasty success rate of the entire cohort was 86.2 % after a mean follow-up of 52.6 ± 12 months. The stricture location was bulbar in 60%, bulbo-penile in 31%, and penile in 8.9% of cases. The mean stricture length was 5.34 cm, and the mean urethral plate width was 6.6 mm. The study included 12 techniques, commonly dorsal onlay BMG bulbo-penile urethroplasty in 127 cases (30%) and Dorsal onlay BMG bulbar urethroplasty in 127 (31.4%). 29 (7.2%) experienced 90-day complications, mostly grade I and II, with no significant difference between the study techniques. Dorsal onlay BMG urethroplasty had a better outcome in bulbar and bulbo-penile stricture (87.4% & 88.6%) compared to penile strictures (77.4%).

**Conclusions:** Buccal Mucosal graft for different techniques of anterior urethroplasty in treating long-segment strictures is reliable with a high over-success rate exceeding 85%. Dorsal onlay BMG urethroplasty has a better outcome in bulbar and bulbo-penile compared to penile strictures.

## Is there a Role of Conservative Management for Renal Trauma in a Diseased Kidney?

**Abdulrahman Alquliti<sup>1</sup>, Dhaifallah Alghamdi<sup>2</sup>**

King fahad hospital

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During the last decades, the management of renal trauma cases has taken a transition from an operative approach to a non-operative approach. The management approaches ranging from conservative treatment, minimally invasive intervention and open surgical intervention. Renal trauma patients are largely managed conservatively but on occasion have to be embolised or taken to theatre for definitive surgical management. Furthermore, End-stage-renal diseases are the emerging public health problems that increase the patient's morbidity and mortality. The patients suffering from ESRD require conservative therapy along with renal replacement therapy to remove the uremic toxins and maintain hemodynamic stability. Here, we present the case of a 30-years-old male visitor known case of ESRD who came with complaints of left upper abdominal pain and frank hematuria after he had fallen from a 1-meter height. The CT-abdomen detected enlarged left kidney showing the abnormal texture with peri-nephric hematoma and hyperdense of the collecting system including the renal pelvis and left ureter. Decision was made for abdominal exploration and nephrectomy. Histopathological examination of the specimen showed dilatation of the pelvicalyceal system with partially ulcerated lining epithelium. On the basis of this, a final diagnosis is chronic pyelonephritis with histologic features suggestive of focal ESRD. The patient was discharged on the fifth day post operation. On further follow-up, he was asymptomatic. In our case, we made our decision based on social factor and pre-existing non-functional kidney with hydronephrosis and the renal trauma has complicated this situation. Dilated pelvic-calyceal

system filled with blood and this may will end-up to infection and developing abscess.

## The effect of fibrin sealant in preventing lymphocele after kidney transplantation. A preliminary result of a randomized controlled trial

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### **Objectives:**

To assess the role of fibrin sealant (Tisseel, Baxter) in prevention of lymphocele after kidney transplantation (KT).

### **Material and method:**

This prospective randomized trial started in July 2020 including all KT. Patients were independently randomized (1:1 ratio) using a computer-generated random table with stratification according to Tisseel (group I) or control (group II). In group I, Tisseel was applied with spray technique over the iliac lymphatics and renal hilum. Patients were followed by US one day after drain removal and 6 weeks after. The primary endpoint was the time of drain removal. The secondary endpoint was the incidence of lymphocele.

### **Results:**

Group I included 22 patients and group II included 30 patients. Patients' demographics are illustrated in table 1. The mean± SD time to remove drain was statistically significant shorter in group I [5±1.7 vs. 10.6±4 days, P<0.001]. In group I, 2 (9%) patients had asymptomatic lymphocele (8 and 13 cm in the greatest dimensions) where 3 (10%) of group II had lymphocele (P=0.9). In group II, one patient required PCD fixation for drainage of the infected lymphocele (12 cm). None of the group I patients reported adverse events related to Tisseel use. The postoperative hospital stay was significantly shorter in group I [7.5±1 vs. 12.6±4 days, P<0.001]. There was insignificant difference in mean Serum creatinine at last follow-up between both groups (P=0.9)

**Conclusion:**

Use of fibrin sealant in KT is safe and significantly decreased the duration of postoperative drains and consequently decreased the hospital stay.

**Case Report and surgical video presentation: Laparoscopic Ureteroureterostomy of retrocaval ureter**

**Hatem Althubiany<sup>1</sup>, Ossamah Alsowayan<sup>2</sup>, Yousef Alsowayan<sup>3</sup>, Abdulaziz Bin Salman<sup>4</sup>**

Imam Abdulrahman Bin Faisal University

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**Objective:** To present our case, its results, and a step-by-step demonstration of the laparoscopic ureteroureterostomy of the retrocaval ureter

**Clinical Presentation:**

We present a case of a 14-year-old male, who was diagnosed with Type-I Retrocaval Ureter (also known as Circumcaval Ureter), associated with obstruction causing grade IV hydronephrosis which was diagnosed after he presented with on and off mild to moderate right loin Pain.

He underwent laparoscopic ureteroureterostomy with a favorable outcome.

Postoperatively he was observed for 2 days, foley catheter was removed after 24 hours, the drain was kept for one more day after the foley catheter was removed and the output was minimal, The drain then was removed and the patient was discharged home, the JJ stent was removed after 6 weeks, Urinary

tract ultrasound was done after 1 month of JJ stent removal showed there was regression of right hydronephrosis, the patient currently is asymptomatic and on regular follow up.

**Conclusion:**

Retrocaval ureter is a rare abnormality, especially in this age group. Surgical correction of this anomaly is the treatment of choice if presented with flank pain, deterioration of renal function, or recurrent Urinary tract infection. The laparoscopic approach is safe for such cases with favorable results in terms of surgical outcome, cosmesis, and complications.

## Laparoscopic Adrenalectomy for Left Sided Large Adrenal Mass

### Fouad Zanaty

A. Professor of Urology - Menoufia University Hospitals Egypt

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we present a case of

Female patients 39 y

Paroxysmal Hypertension

Left adrenal mass by Abdominal U/S 10 \* 8 cm

CT Scan: left adrenal heterogeneous enhancing mass

Serum Catecholamines = Normal

Plasma aldosterone level: Normal

Potassium concentration: Normal

ACTH: Normal  
Serum Renin: Normal  
Urinary Vanillyl mandelic acid (VMA) = Normal  
Laparoscopic Adrenalectomy was done

## Robotic Assisted excision of interaortocaval paraganglioma

**Mouath Binhazzaa<sup>1</sup>, Hassan Alzahrani<sup>2</sup>**

Imam University and KFSH&RC

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**INTRODUCTION:** A 42-year-old male known case of diabetes mellitus was discovered incidentally to have inter-aortocaval mass. The urinary level of normetanephrine increase by three-fold which confirmed the diagnosis of paraganglioma. The patient blood pressure was normal. A CT scan and somatostatin PET

scan showed a 3 cm inter-aortocaval lesion above the aortic bifurcation with intense somatostatin expression. The patient was prepared two weeks prior to surgery with alpha-adrenergic blockade

#### **MATERIALS AND METHODS**

We used a 4-arm Xi with standard port placement as for right renal surgery. The patient was placed in left lateral position under general anesthesia. By using Hasson technique, a 12 mm assistant trocar is placed in the midline infraumbilical. A 5-mm trocar inserted midline in the epigastrium to retract the liver. Four 8-mm robotic trocars are placed in an oblique, straight-line lateral to the edge of the rectus sheath. Medial mobilization of right colon done; hepatic flexure was dissected; duodenum was Kocherized. Tumor bulge was identified; on further dissection IVC was identified. The attachments around the tumor were carefully dissected; multiple arteries as well vein tributaries draining to IVC were identified and controlled by robotic vessel sealer. Intraoperative blood loss was 50 ml and total time of surgery was 120 min. During the procedure, BP was stable. The patient was discharged on day one without antihypertensive drug

**CONCLUSION:** Normotensive paraganglioma is a rare extra-adrenal pheochromocytoma. Our case report emphasizes on the robot assisted surgical technique for the removal of tumor in a vulnerable anatomical position

Laparoscopic Donor Nephrectomy: Retroaortic Renal Vein

Yousef Alsowayan<sup>1</sup>, Ibrahim Aloraifi<sup>2</sup>, Abdulrahman Almuhrif<sup>3</sup>, Bikheet Almatar<sup>4</sup>

KFSHD

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Video presentation showing Laparoscopic Donor Nephrectomy: Retroaortic Renal Vein.  
and how to deal with complexity of renal pedicle

**Enbloc Resection of Bladder Tumor (ERBT) With the Aid of Ex-vivo Fluorescence Confocal Microscope:  
Feasibility and Description of the Technique**

**Ahmed Eissa<sup>1</sup>, Stefano Puliatti<sup>2</sup>, Natali Rodriguez<sup>3</sup>, Ali Abdel Raheem<sup>4</sup>, Stefania Ferretti<sup>5</sup>, Giampaolo  
Bianchi<sup>6</sup>, Salvatore Micali<sup>7</sup>**

### **Aims**

Ex-vivo Fluorescence Confocal Microscope (FCM) is an optical technology that utilizes two different wavelengths of laser (488nm for fluorescence mode and 785nm for reflectance mode) to provide digital images resembling the conventional hematoxylin & Eosin slides in few minutes. In the current video, the feasibility and description of the FCM technique in patients undergoing ERBT for bladder tumor is presented.

### **Methods:**

Initially, the resected specimen is prepared for histopathological analysis by soaking it in Acridine Orange solution for 30 seconds followed by rinsing in saline solution. Subsequently, the specimen is placed on absorbent paper and embedded between glass slides for examination by the VivaScope 2500M-G4 (MAVIG GmbH, Munich, Germany; 105 Caliber I.D.; Rochester, NY, 106 USA). The digital images are to a remote pathologist for evaluation.

### **Results:**

In the current video after ERBT, the initial specimen was analyzed immediately by the pathologist showing absence of the muscle layer in the specimen, thus the surgeon deepened the resection to ensure the inclusion of muscle layer. Finally, the pathologist reported the presence of layers of atypical urothelial cells infiltrating the connective tissue but not the muscle layer. The FCM confirmed the presence of pT1 G2 HG urothelial carcinoma. These findings were confirmed 15 days later using conventional histopathological examination.

### **Conclusion**

This feasibility study confirms the value of FCM in the management of patients with bladder cancer. It has the potential to confirm the presence of muscle layer and provides a provisional diagnosis of the tumor grading.

**Percutaneous Internal Ring Suturing: A Simple Minimally Invasive Approach for Inguinal Hernia Repair in Children, Our Initial Experience.**

**Omar Safar, Adel Elatreisy**

**Background:** Our technique of percutaneous internal ring suturing (PIRS) requires one five mm umbilical port and a one-needle puncture point. We report our experience regarding the efficacy of percutaneous internal ring suturing for inguinal hernia repair in children.

**Materials and Methods:** A prospective study included all children amenable to inguinal hernia repair at Armed Forces Hospital Southern Region from January 2021 to November 2023. Under laparoscopic guidance, an 18-gauge injection needle with a nonabsorbable thread inside the barrel of the needle was placed through the abdominal wall. The thread passed retroperitoneal at the level of the internal inguinal ring, anterior to the Vas and gonadal vessel. The knot was tightened outside the body and placed in the subcutaneous space. The visual analog scale was used postoperatively in all patients >seven years old.

**Results:** 36 children (ages 28 days–12 years). The mean operative time was 26 ± 2.1 minutes with no significant postoperative pain. We did not report any grade of Clavien-Dindo classification for perioperative complications. There was no hernia recurrence after a range of follow-ups (12-24 months).

**Conclusion:** The PIRS technique has almost no visible scars and low risk to the cord structures. However, this procedure's long-term follow-up, advantages, and disadvantages should be evaluated in comparison with standard open repair and other laparoscopic herniorrhaphy techniques in a more extensive trial.

## Laparoscopic Ureterolysis in Retroperitoneal Fibrosis: Tips and Tricks

**Abdulrahman Almuhrif<sup>1</sup>, Yousef Alsowayan<sup>2</sup>**

King Fahad Specialist Hospital

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### Retroperitoneal Fibrosis

Ureterolysis first described in 1905 by Albarran.

The etiology of this disorder may be diverse, commonly 30% to 40% of cases being idiopathic.

Easy ureteral catheterization is pathognomonic of RPF.

A course of steroids may be beneficial.

The best long-term results are obtained ureterolysis with low complications rate.

### Patient information:

56 year old male. DM II and morbidly obese.

Initial presentation with flank pain and found to have bilateral moderate hydronephrosis with medial deviation and evidence of RPF on CT scan.

RFP affected both ureters, left ureter improved after steroid and ureteral stent removed but right ureter did not.

Biopsy done showed non-specific inflammation and fibrosis.

### Video showing procedure with audio

### Post Operative Care:

Discharge on day one post operatively.

Ureteral stent removal after 4 weeks with after retrograde study.

Periodic renal ultrasound or CT and serum creatinine in next 2 years.

Recurrent involvement of the ureters is rare, but strictures have been reported, possibly as a result of localized ischemia.

Laparoscopic Ureterolysis is safe and feasible, what is next?

urethral stricture high pressure balloon dilation:A vedio presentation

**Hossam El-Tholoth<sup>1</sup>, Tala Al-Afraa<sup>2</sup>**

MSc

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our aim is to resent an easy techique for balloon urethral dialtation using high pressure balloon . this technique done on supine postion under local anathesia

## Anterior onlay buccal mucosal graft urethroplasty in female urethral stricture; our early experience

Mohamed Elmaadawy<sup>1</sup>, Mosaab Eldeeb<sup>2</sup>

Urology Department, Tanta University, Egypt

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Anterior onlay buccal mucosal graft urethroplasty in female urethral stricture ; our early experience.

Abstract

### **Aim**

urethral stricture in Females is relatively rare disease. So, the management has been inadequately evaluated, urethral dilatation was used as the first line of treatment with low success rate recently, there has been increasing use of urethroplasty due to the improved success rate. In this study we evaluated the surgical and functional outcomes of anterior on lay buccal mucosal grafts in female urethral stricture.

### **Materials and methods**

In our study we prospectively evaluated 8 female patients treated from 2022 to 2023 at our center; ages ranged from 24 to 55 years. anterior on lay buccal mucosal graft urethroplasty was done in all cases. Patients were followed up at 3,6,9 month postoperative clinically with the voiding symptoms, uroflowmetry and post-void residual urine. Failure was defined as persistent of symptoms, no improvement of the urine flow rate and significant amount of post-void residual urine.

### **Results**

The overall Success rate of our approach was > 95%. Stricture location was confined to the distal urethra in 29%, the mid-urethra in 14%, reach over the distal mid-urethra in 57%. Mean stricture length was 1.8 (0.7–2.1) cm. Mean pre- versus postoperative Qmax was 7 ml/s versus 25.3 ml/s and mean residual urine was 165 ml versus 18 ml. 1 patient had stricture recurrence at 6 months post-operative.

### **Conclusion**

Anterior on lay buccal mucosal graft is a suitable approach for the management of female urethral stricture with an excellent outcome.

## Laparoscopic donor nephrectomy for triple renal artery: video presentation

**Abdullah Alruwaili<sup>1</sup>, Hossam S.El-Tholoth<sup>2</sup>, Abdulaziz Alhazza<sup>3</sup>, Abdulrahman Alrwaily<sup>4</sup>, Ahmed Alzahrani<sup>5</sup>**

Prince Sultan Military Medical City , Riyadh, Saudi Arabia

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A 47-year-old man, deemed a suitable donor for his 54-year-old brother with end-stage renal disease, underwent successful laparoscopic left nephrectomy despite challenging anatomy. Pre-existing hypertension, diabetes, and ischemic heart disease in the recipient posed additional complexities. CT revealed a left kidney with three distinct renal arteries and a single renal vein and right kidney has two arteries and very short single vein. Notably, the donor had been previously declined at another center due to this complex vascular configuration.

The surgery proceeded smoothly, and the donor's post-operative creatinine remained within acceptable limits (119 mmol/dl vs. 92 mmol/dl pre-operatively). Subsequently, the recipient received the kidney with successful anastomosis of all three arteries. His post-operative creatinine demonstrated significant improvement at 114 mmol/dl.

## Bilateral thrombosed varicocele - A rare emergency presentation: Case report

**Dr. Haitham Alasim<sup>1</sup>, Dr. Ayman Albakri<sup>2</sup>, Dr. Mohammed Aldwaighri<sup>3</sup>**

<sup>1</sup>Assistant Professor, MD, FEBU, SFHP Riyadh MBBS, urology resident, SFHP Riyadh<sup>2</sup>, MBBS, urology resident, SFHP Riyadh<sup>3</sup>,

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### **Case presentation:**

A 17 years old boy single, medically and surgically free, presented to the emergency department (ED) complaining of bilateral scrotal pain more on the right side that started one week ago and radiating to the right inguinal area, on and off in nature but progressive in course, mild in severity. The pain was aggravated by touching the scrotum but relieved by sitting calm. The patient did not complain of any scrotal swelling or skin redness, urethral discharges, haematuria, or fever. The patient also denies any history of trauma, sexual activity, or ingestion of raw milk. On examination; the patient is vitally stable and A-febrile not in pain (after he received analgesia by ED). The right scrotum is tender, especially at the posterior aspect but there is no collection nor mass felt. No signs of torsion or epididymo-orchitis. However, examination in supine and standing position confirms a grade two varicocele. The left scrotal is fine. Laboratory workup was Unremarkable except for urine dipstick shows positive Blood however, urine culture shows no growth. Ultrasonic testis with doppler shows bilateral homogenous testis with good blood supply with no signs of torsion or epididymo-orchitis However, an incidental finding of thrombosed varicocele (TV) veins bilaterally with silent flow and no velocity wave.

### **Conclusion:**

Bilateral TV is a rare presentation of acute scrotum, moderate pain, and scrotal discomfort are the main complaints, Spontaneous cause in young patients is common with no clear cause, and medical conservative therapy has a good outcome in bilateral TV.

## Effect of Blackcurrant Consumption on Genitourinary System: A Literature Review

**Dr. Waleed Alghuyaythat<sup>1</sup>, Dr. Meshari Alzahrani<sup>2</sup>, Dr. Faisal Binnshwan<sup>3</sup>, Dr. Khaled Alsulaim<sup>4</sup>,  
Dr. Osama Mobeirek<sup>5</sup>, Dr. Nasser Albakran<sup>6</sup>, Dr. Fahad Albawardi<sup>7</sup>, Dr. Abdulrahman Almezaini<sup>8</sup>,  
Dr. Yazeed Alqahtani<sup>9</sup>, Dr. Ibrahim Abunohaiah<sup>10</sup>, Dr. Raed Almannie<sup>11</sup>, Dr. Raed AlAsmi<sup>12</sup>**

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### **Background:**

Both vivo and in vitro research have shown that functional plant-based food such as (fruits, vegetables, and berries) can enhance health, have a preventive effect, and reduce the risk of several chronic diseases.

### **Objective:**

The aim of this study is to summarize research on the positive benefits of blackcurrant fruits on the health of the genitourinary system (GUS).

### **Materials and Methods:**

This review was conducted using a predefined protocol. We found relevant literature about BC and its impact on the GUS using the search engines PubMed/Medline and Google Scholar. We searched for articles from the date of inception of the database until January 2023.

### **Results:**

There have been several studies conducted to understand the effect of BC berries on the human body and health. Several random clinical trials tested the effect of BC on postprandial glycemia and insulinemia. The results of these studies suggest that BC can reduce postprandial glucose and insulin levels after a rich carbohydrate meal. The role of BC in urinary tract infection (UTI) prevention and prophylaxis is not yet studied, while the role of cranberry products as a preventive agent against UTI has been extensively demonstrated by six meta-analyses and many systematic reviews, encompassing 82 clinical studies.

### **Conclusion:**

Studies on chronic BC supplementation in humans may validate the encouraging findings from animal models and human trials. Further studies are required to understand the processes underlying the potentially beneficial effects of BC on human health.

## **Robotic Assisted excision of discontinuous splenogonadal fusion**

**Dr.Mouath binhazzaar., Dr. Hassan Alzahrani<sup>2</sup>**

<sup>1</sup> Imam University and KFSH&RC, <sup>2</sup>KFSH&RC.

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### **INTRODUCTION:**

A 29-year-old male was discovered incidentally to have intra-abdominal left testes fused with elongated soft tissue mass during workup for kidney living donor harvesting. Scrotal ultrasound showed undescended left testes found in the lower quadrant of the abdomen, normal right testes. CT scan showed an intra-abdominal left testes fused with elongated soft tissue that has similar enhancement pattern to the spleen measuring 16.5 x 3 cm. The tumor marker of testicular cancer were negative

### **MATERIALS AND METHODS:**

We used a 4-arm Xi HD da Vinci with standard port placement as for left renal surgery .The patient was placed in right lateral position under general anesthesia. By using Hasson technique, a12 mm assistant trocar is placed in the midline infraumbilical. Four 8-mm robotic trocars are placed in an oblique, straight line starting from 4 cm below the costal margin just lateral to the edge of the rectus sheath. Medial mobilization of the distal part of left colon. Tumor bulge was identified; the attachments around the tumor were carefully dissected. Two arteries as well vein tributaries were identified and controlled by Hemo-lock clips. Intraoperative EBL was 30 ml and total time of surgery was 60 min. Postoperatively, patient was shifted to the surgical ward . no Abdominal drain was used. The patient was discharged the next day . The histopathology revealed a splenogonadal fusion measuring 16 X 3 cm, with no malignant cell identified

## **CONCLUSION:**

Discontinuous splenogonadal fusion is a rare benign congenital malformation. Surgical excision is essential for diagnosis

**Simultaneous horseshoe kidney in a patient with situs inversus totalis with right ureterovesical junction stone. A rare case report**

**Ahmad Alharmi<sup>1</sup>, Dalal Alhusainan<sup>2</sup>, Falah, Alhajraf<sup>3</sup>, Faisal Alhajeri<sup>4</sup>, Ali Al Moumen<sup>5</sup>, Saleh Bubishate<sup>6</sup>**

*Al-Adan Hospital, Kuwait<sup>1</sup>, Al-Adan Hospital, Kuwait<sup>2</sup>, Al-Jahra Hospital, Kuwait<sup>3</sup>, Kuwait Institute for Medical Specializations, Kuwait<sup>4</sup>, Kuwait Institute for Medical Specializations, Kuwait<sup>5</sup>, Al-Adan Hospital, Kuwait<sup>6</sup>.*

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Horseshoe kidney is the most prevalent renal fusion anomaly, affecting approximately 0.25% of the population which leads to malrotation of the kidney, anterior displacement of the collecting system and high ureteric insertion. The most common complication of horseshoe kidney is urolithiasis because of urine stasis. Situs inversus totalis is a rare congenital condition characterized by anatomical variation, diagnosed in only 1/8000 to 1/25,000 of the general population which is typically incidentally discovered during thoracic and abdominal imaging. We reported a rare case of a simultaneous horseshoe kidney stone in a patient with situs inversus totalis with right ureterovesical junction stone.

## Current status of anabolic-androgenic steroid use in Saudi Arabia: Narrative review

**Sultan Alali<sup>1</sup>, Meshari Alzahrani<sup>2</sup>, Waleed Alghuyaythat<sup>3</sup>, Abdullah Alotibi<sup>4</sup>, Abdullah Alosailan<sup>5</sup>, Osama Alshamrani<sup>6</sup>, Naif Alharthi<sup>7</sup>, Mohammed Almasoudi<sup>8</sup>.**

*Department of Urology, College of Medicine, Majmaah University, Al-Majmaah1, 1 College of Medicine, Imam Abdulrahman Bin Faisal University, Dammam2, 2 College of Medicine, Majmaah University, Al-Majmaah3, 2 College of Medicine, Majmaah University, Al-Majmaah4, 2 College of Medicine, Majmaah University, Al-Majmaah5, 2 College of Medicine, Majmaah University, Al-Majmaah6, 2 College of Medicine, Majmaah University, Al-Majmaah7, 2 College of Medicine, Majmaah University, Al-Majmaah8*

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### **Background & aim:**

Despite the known severe adverse effects of anabolic-androgenic steroid (AAS) substances globally. We aimed to assess the prevalence of AAS use and its associated risk factors among individuals in Saudi Arabia.

### **Methods:**

We conducted a Medline/PubMed search for articles on AAS misuse in Saudi Arabia, focusing on the following terms: "anabolic steroids and misuse" and "anabolic steroids and Saudi Arabia" from the database's inception until November 2023.

### **Results:**

We identified 13 cross-sectional studies reporting AAS misuse variables in Saudi Arabia from 2016 to 2022. The total reported cases of AAS misuse involved 4913 individuals, with the Central Province showing the highest instances. Gym members exhibited a higher prevalence, with a mean age ranging from 27.2 to 34 years. The majority of AAS misusers were single males. Prevalence of AAS misuse ranged from 4.7% to 31%. Friends and gym trainers were the most common sources of AAS. Oral intake was the

preferred administration route. The most commonly misused AAS types were Nandrolone, Metandienone, and Testosterone enanthate. Adverse effects included psychiatric issues (depression), breast hypertrophy, and hypertension, while sexual and reproductive dysfunction (infertility) was reported at 24% and 10.6%, respectively.

**Conclusion:**

Our review demonstrates a high prevalence of misuse of AAS in Saudi Arabia among gym members. Lack of awareness of its adverse effects. Since trainers and gym owners are considered some of the main sources of AAS, public health education and awareness campaigns are required for both trainees and gym owners.

**A Fatal Case of Penile Calciphylaxis**

**Abdullatif Alhassan<sup>1</sup>, Mohammed Hassan<sup>2</sup>.**

*SFH<sup>1</sup>, SFH<sup>2</sup>*

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Penile calciphylaxis, or calcific uremic arteriopathy of penile arteries, is a rare but devastating presentation of calciphylaxis, a condition predominantly seen in chronic kidney failure patients treated with dialysis. Morbidity is related to severe pain, nonhealing wounds, recurrent hospitalizations, and adverse effects of treatments. 1 Sodium thiosulfate has had reported success in case reports. 2 This case report presents a challenging case of penile calciphylaxis associated with end-stage renal disease (ESRD) and diabetes mellitus type 2 resulting in necrosis of the glans penis with eventual penectomy.

We presented a case of 39 years old male known case of hypertension and end stage renal disease with history of complicated cholecystectomy, admitted under medical as case of multiple ulcer, infected bed sore and neuropathy.

On physical examination, severe tenderness was noted upon palpation of the penis and scrotum along with yellow-white discharge from the penile stump. Examination of the upper and lower extremities revealed multiple diffuse brown lesions including medial aspect of thighs bilaterally and left lower leg with black discoloration of the fingers

Patient was treated with total penectomy and debridement

## Infected Giant Right Seminal Vesicle Epidermoid Cyst in Young Male Patient with Ipsilateral Solitary Kidney: Case Report

**AbdulAziz Almalki<sup>1</sup>, Siraj Alsolimani<sup>2</sup>, Khalid Alzahrani<sup>3</sup>, Mishari Azahrani<sup>4</sup>, Arwa Aljuhani<sup>5</sup>, Samia Almutairi<sup>6</sup>,**

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### **Abstract**

We are presenting a young male patient complaining of a rapidly growing lower abdominal mass over the past 3 months associated with lower urinary tract symptoms and recurrent urinary tract infection. Pelvic MRI showed a right seminal vesicle huge congenital cyst causing a mass effect on the urinary bladder, rectum and left ureter. After exploratory laparotomy, the histopathology showed an epidermal inclusion cyst with secondary inflammation and suppuration mostly an infected epidermoid cyst. This report provides an additional data point for this unique location of the epidermoid cyst within the seminal vesicle.

An epidermoid cyst is a rare cystic lesion that may be found in the male pelvis. These lesions are usually asymptomatic; however, these cysts occasionally lead to compression of the adjacent pelvic organs or rarely as an abdominal mass or both

Such cystic lesions may include epidermoid, dermoid, and enteric cysts, and malignant pathologies such as teratoma, teratocarcinoma, and yolk sac tumor . Here, we are presenting a male case with a rapidly growing pelvic epidermoid cyst.

### **Conclusion**

Pelvic epidermoid cyst among other central pelvic cystic lesions in men are challenging in diagnosis and treatment however pelvic MRI must be the corner stone in making the diagnosis, identifying the relation of the mass to the adjacent organs, and planning surgical approach. Surgery should include safe surgical dissection of the mass to avoid organ or vessel injuries and good judgment on when to aspirate the cyst content to facilitating cyst dissection and excision.

## **Prevalence of post-micturition dribble in Saudi young males**

**Abdulrahman Almulla<sup>1</sup>, Abdullatif Almaghlouth<sup>2</sup>, Abdulelah Alshebly<sup>3</sup>, Abdulmohsen Balghunaim<sup>4</sup>**

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### **Background:**

Post-micturition dribble (PMD) is categorized as one of the most common symptoms that can occur in the lower urinary tract after urination, affecting nearly one-third of men worldwide. This study aims to measure PMD prevalence in Saudi young males and explore associations with demographic and clinical factors, informing targeted interventions and improving quality of life.

### **Methods:**

A descriptive cross-sectional study was conducted among a sample of Saudi young males. The data collection sheet included socioeconomic–demographic information, international prostate symptom

score (IPSS), and Hallym post micturition dribble questionnaire (HPMDQ) to assess PMD. The data were collected using a pre-structured questionnaire that was distributed online using social media platforms.

### **Results:**

A total of 1758 eligible Saudi young males completed the study questionnaire. Participants' ages ranged from 18 to 35 years with a mean age of  $21.7 \pm 6.4$  years old. A total of 918 (52.2%) Saudi young males had postmicturition dribble where 568 (32.3%) of them experienced PMD once every 3 times, 10.8% experienced 2 every 3 times, and 160 (9.1%) experience PMD nearly every time. As for severity, Saudi young males with PMD had a severity score of  $1.7 \pm 1.1$ , bother score of  $1.4 \pm 1.1$  and quality of life score of  $1.3 \pm 1.1$ .

### **Conclusion:**

In conclusion, the current study revealed a high prevalence of PMD among Saudi young males with frequent occurrence, moderate severity, and an average impact on their quality of life.

## **Emphysematous Epididymo-Orchitis: A Rare Case Report**

**Fatima Albladi<sup>1</sup>, Mohamed Abdelkarim<sup>2</sup>, Abdo Alfares<sup>3</sup>, Hadi Aldarwish<sup>4</sup>, Ahmed Abdelkarim<sup>5</sup>.**

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Emphysematous epididymo-orchitis is a rare and potentially fatal infection marked by the presence of gas in the epididymis and testicular tissue. Here, we describe the case of a 49-year-old male with a known past medical history of diabetes and hypertension who presented with right inguinoscrotal swelling and severe tenderness. An urgent scrotal ultrasound was obtained and revealed a fluid-filled

avascular mass. Moreover, the non-contrast CT scan showed a mixture of air and fluid density in the right epididymis, perineum, and spermatic cord course. The medical team confirmed the diagnosis of emphysematous epididymo-orchitis. The patient refused the management plan at first, but later came back and accepted the procedure. A right orchidectomy with spermatic cord removal was performed without complications.

#### **Emphysematous Epididymo-Orchitis: A Rare Case Report**

**Dr. Saleh Alruwaili<sup>1</sup>, Dr. Mohammed Khattab<sup>2</sup>, Dr. Atallah Alatawi<sup>3</sup>, Dr. Mohammed Elbakary<sup>4</sup>,  
Dr. Abdulaziz Alhuwaidi<sup>5</sup>, Dr. Abdullah Alali<sup>6</sup>, Dr. Yazeed Alwabesi<sup>7</sup>, Dr. Muteb Bin Muhaya<sup>8</sup>**

*KFSH/ TABUK<sup>1</sup>, KFSH/ TABUK<sup>2</sup>, KFSH/ TABUK<sup>3</sup>, KFSH/ TABUK<sup>4</sup>, KFSH/ TABUK<sup>5</sup>, KFSH/ TABUK<sup>6</sup>, KFSH/ TABUK<sup>7</sup>, KFSH/ TABUK<sup>8</sup>.*

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Spontaneous rupture of renal pelvis with urine extravasation is a rare condition and usually associated with obstructing ureteric calculus. Another causes like traumatic injuries, malignant obstruction, ureteropelvic junction (UPJ) obstruction, pregnancy, and iatrogenic urinary tract manipulation can cause this condition . Spontaneous rupture is typically diagnosed through imaging modalities such as computed tomography (CT) scans or retrograde pyelography. We have a case of spontaneous rupture of renal pelvis in 47y old male medically free , he was a male 47y old medically free presented to ER C/O sever LT loin pain. afebrile diagnosed as SRRP after complete investigations following the guidelines which showed large perinephric collections reaching to the pelvis . LT percutaneous drainage done and case diagnosed with CT urogram . LT DJ stent inserted till complete resolution of rupture pelvis and the DJ removed

## Intrarenal foreign body found during percutaneous nephrolithotomy in a patient without prior urological intervention: a case report and literature review.

Omar Safar<sup>1</sup>, Adel Elatreisy<sup>2</sup>, Saeed Asiri<sup>3</sup>, Saad Thamer<sup>4</sup>, Abdulrahman Al-Alown<sup>5</sup>.

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### **Background:**

Foreign bodies in the kidney may result from direct penetration, penetration via the gastrointestinal tract, or retrograde migration from the lower urinary tract. Although the literature reports a low incidence of intrarenal foreign bodies, one review indicates an incidence of 0.6%. This can cause recurrent nephrolithiasis or impaired renal function.

### **Case Presentation:**

We present a case study of a 69-year-old male patient who underwent right percutaneous nephrolithotomy (PCNL), during which an incidental finding of an intrarenal foreign body was discovered. The patient had no previous history of urological intervention but had undergone multiple percutaneous liver abscess drainage and endoscopic procedures. To our knowledge, this is the first case report of a pigtail thread rupture, likely resulting from recent hepatic abscess drainage.

### **Conclusion:**

Obtaining a comprehensive history review is crucial when planning an invasive intervention. Retrieving an intrarenal foreign body is challenging and lacks a standard management protocol. Therefore, it is essential to assess all equipment carefully at the end of the procedure. The management of this condition can prove difficult by retrograde intrarenal surgery and percutaneous nephrolithotomy (PCNL).

## Leydig cell hyperplasia

**Moath Qarmush<sup>1</sup>, Ahmad Alzahrani<sup>2</sup>, Hisham Ghabbani<sup>3</sup>, Alwaleed Alqarni<sup>4</sup>, Jalwi Lazher<sup>5</sup>.**

*Prince Sultan Military Medical City, Urology Department, Riyadh<sup>1</sup>, Prince Sultan Military Medical City, Urology Department, Riyadh<sup>2</sup>, Prince Sultan Military Medical City, Urology Department, Riyadh<sup>3</sup>, Prince Sultan Military Medical City, Urology Department, Riyadh<sup>4</sup>, Imam Mohammed bin Saud Islamic university, College of Medicine, Riyadh<sup>5</sup>.*

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### **Introduction :**

Leydig cell hyperplasia or tumor represents less than 3% of all testicular tumors. It can be defined as an increase in the size and number of Leydig cell within the testicles. These cells are responsible for the production of testosterone in human males.

### **Case presentation :**

Mr. M.A , he is 56 years old, Known case of Prostatic Benign Hyperplasia and fluctuating. As he follow up for his condition, an incidental finding was found in his MRI and revealed undescended testes. An orchidectomy was done for him and orchidopexy on the contralateral side, histopathology shows A hyperplasia of Leydig cell.

### **Discussion**

hyperplasia of the Leydig cells (LCH) complex pathological entity with a complex biopsy guided diagnosis and multiple etiological hypotheses dominated by urological causes.

the pathogenesis differ from pediatric age group and adults. In adults mostly is benign and idiopathic. Using of biopsy and US nowadays for the cases of infertility made Leydig cell hyperplasia cases are increasing in rates .

### **Conclusion:**

LCH should be differentiated from Leydig cell tumor to avoid harmful intervention in the future.

## Is there a Role of Conservative Management for Renal Trauma in a Diseased Kidney?

**Abdulrahman Alquliti<sup>1</sup>, Dhaifallah Alghamdi<sup>2</sup>**

*King fahad hospital<sup>1</sup>, King fahad hospital<sup>2</sup>.*

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During the last decades, the management of renal trauma cases has taken a transition from an operative approach to a non-operative approach. The management approaches ranging from conservative treatment, minimally invasive intervention and open surgical intervention. Renal trauma patients are largely managed conservatively but on occasion have to be embolised or taken to theatre for definitive surgical management. Furthermore, End-stage-renal diseases are the emerging public health problems that increase the patient's morbidity and mortality. The patients suffering from ESRD require conservative therapy along with renal replacement therapy to remove the uremic toxins and maintain hemodynamic stability. Here, we present the case of a 30-years-old male visitor known case of ESRD who came with complaints of left upper abdominal pain and frank hematuria after he had fallen from a 1-meter height. The CT-abdomen detected enlarged left kidney showing the abnormal texture with peri-nephric hematoma and hyperdense of the collecting system including the renal pelvis and left ureter. Decision was made for abdominal exploration and nephrectomy. Histopathological examination of the specimen showed dilatation of the pelvicalyceal system with partially ulcerated lining epithelium. On the basis of this, a final diagnosis is chronic pyelonephritis with histologic features suggestive of focal ESRD. The patient was discharged on the fifth day post operation. On further follow-up, he was asymptomatic. In our case, we made our decision based on social factor and pre-existing non-functional kidney with hydronephrosis and the renal trauma has complicated this situation. Dilated pelvic-calyceal system filled with blood and this may will end-up to infection and developing abscess.

## Effect of Uralyt-u in dissolving renal stones: case series

**Ghassan Alhajress<sup>1</sup>, Yahya Ghazwani<sup>2</sup>, Meshari Alshaashaa<sup>3</sup>, Bader Alsikhan<sup>4</sup>**

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The effect of alkaline citrate is well known for preventing certain types of renal stones and aiding in the clearance of small stones. Here we present an interesting case series in which patients with renal stones of different sizes had complete resolution with a 3 to 6 months courses of Alkaline citrate.

The efficacy of alkaline citrate in treating renal stones of different compositions need to be furtherly studied as it can be useful alternative in patient that cannot tolerate surgical intervention and as adjunct to surgery.

## Prevalence of urolithiasis in Saudi Arabia: A Systematic Literature Review

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Urolithiasis is a common urological disease that can have a negative impact on health and quality of life in people all over the world. Multiple studies have investigated the prevalence of Urolithiasis worldwide. However, research is very limited on this matter in Saudi Arabia. This review aims to investigate the prevalence of urolithiasis in Saudi Arabia and assess its prevalence. A standardized, systematic search strategy was conducted to identify observational studies that reported on the prevalence of urolithiasis in Saudi Arabia. The search included published studies between January 2000 and October 2023. Eleven eligible studies were included for analysis. This included 323,591 participants. The prevalence in these studies showed wide variability throughout the past two decades and was reported to range between 6% and 17.3%. 5 studies showed male predominance and three studies showed female predominance. Calcium oxalate was found to be the most common type of stone. A significant association was found between urolithiasis and increasing age. Studies on urolithiasis are limited in Saudi Arabia. Despite this, we notice an increasing incidence in some regions of the country. Reducing the burden of this disease on our population could be achieved through public awareness campaigns, lifestyle changes, and the establishment of a database registry.

## Antibiotics Efficacy in Clinical and Microbiological Cure of Uncomplicated Urinary Tract Infection: A Systematic Review and Network Meta-analysis

Mohammed Hadidi<sup>1</sup>, Nawaf Alhamami<sup>2</sup>, Mohammed Alhakami<sup>3</sup>, Ahmed Abdulhamid<sup>4</sup>, Abdullah Alsharif<sup>5</sup>, Mohammed Alomari<sup>6</sup>, Yasir Alghamdi<sup>7</sup>, Samirah Alshehri<sup>8</sup>, Abdullah Ghaddaf<sup>9</sup>, Faisal Alsenani<sup>10</sup>, Hisham Almadani<sup>11</sup>.

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### **Purpose:**

Fosfomycin has been used more frequently in the management of uncomplicated urinary tract infections (UTI) due to decreased compliance and increased multidrug-resistant bacteria. The aim of this network meta-analysis was to assess the efficacy of Fosfomycin compared to Nitrofurantoin, Trimethoprim-Sulfamethoxazole (TMP-SMX), and Ciprofloxacin in terms of clinical and microbiological cure alongside with other measurements.

### **Materials and Methods:**

We searched MEDLINE, Embase, and Cochrane Central Register of Controlled Trials (CENTRAL). We included randomized control trials (RCTs) with uncomplicated UTI patients who received Fosfomycin, Nitrofurantoin, TMP-SMX, or Ciprofloxacin and reported the clinical or microbiological cure. To assess the quality of the included studies, we used Cochrane Risk of Bias Assessment Tool. R- software was used for all statistical analysis. We ranked all antibiotics using the netrank function which yielded P scores. Frequentist network meta-analysis was used to assess the efficacy of all outcomes.

### **Results:**

We included 13 RCTs with a total number of 3856 patients that showed Fosfomycin ranked the highest among the other antibiotics with respect to clinical cure (P-score= 0.99) and microbiological cure (P-score= 0.99) while Ciprofloxacin ranked the lowest (P-score=0.11 and 0.02, respectively). Moreover,

Ciprofloxacin yielded the highest relapse rate (P-score=1) whereas TMP-SMX had the lowest relapse rate (P-score= 0.07). As for the adverse events, Ciprofloxacin demonstrated the highest adverse events as opposed to Fosfomycin (P- score= 0.98 and 0.05, respectively).

**Conclusion:**

The network meta-analysis demonstrated that Fosfomycin is the most effective antibiotic in treating uncomplicated UTI with respect to clinical cure, microbiological cure, and adverse events profile.

### **Retroperitoneal Hematoma post Percutaneous Sacral Nerve Evaluation**

**Nader Aldossary.**

*King Fahad Specialist Hospital - Dammam*

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Sacral Neuromodulation (SNM) is a well-established and widely accepted therapy for refractory overactive bladder, non-obstructive urinary retention, and fecal incontinence. We report a 71-year-old male with a history of BPH, previous TURP, and a decompensated Overactive bladder. He was on anticoagulation for Atrial Fibrillation. He underwent Percutaneous Sacral Nerve Evaluation (PNE) to evaluate if he is a good candidate for permanent SNM therapy. The procedure went uneventfully. On day 5 post PNE, He did not show improvement in his voiding volumes based on the PNE and the temporary lead was completely removed in the office without complications. On Day 10 post-PNE, he developed lower abdominal, genital, and perineal skin bruising that prompted him to seek medical attention in the Emergency Room. CT showed significant retroperitoneal hematoma and a drop in Hemoglobin. He was admitted and managed conservatively. Two months later, his hemoglobin was stable. Retroperitoneal hematoma post PNE is a rare complication. Based on the literature review, this is the first reported case in the literature. Retroperitoneal hematoma is managed conservatively. Angioembolization is reserved for hemodynamically unstable patients.

## Complex Urogenital Fistulas: a Case Report

Amer Alhamrani<sup>1</sup>, Sara Albagshi<sup>2</sup>, Turki Alessawi<sup>3</sup>, Ahmed Almuhanha<sup>4</sup>

*King Fahad Hospital Al Hofuf*

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### **Introduction:**

Urogenital fistulas are defined as an abnormal communication between hollow organs vagina, ureter, bladder and urethra which result in variety of symptoms such as continues urinary incontinence and recurrent UTI. A fistula is considered complex when its size is greater than 4 cm, multiple openings, recurrence, associated with malignancy or located in bladder trigon or ureter. We report a rare case of a multiple urogenital fistulas including urethrovaginal fistula, vesicovaginal fistula and left ureterovaginal fistula presented with continues urinary incontinence.

### **Case report:**

A 55-year-old female complaining of continues urinary incontinence following traumatic still birth for 30 years with failed transabdominal fistula repair twice last one 15 years ago.

A computed tomography (CT) urogram with delayed phase revealed contrast within the vagina indicating fistula, due to significant streaking artifact from left hip prosthesis the assessment was limited to bladder and ureters.

Urological examination with cystoscopy under general anesthesia showed a 3 cm posterior urethral defect with no bladder wall defect was identified. Cysto-urethrogram and retrograde study was done and showed ureterovaginal fistula, urethrovaginal fistula and vesicovaginal fistula (fig1).

Transabdominal approach was done and vesicovaginal fistula repaired with omental flap interposition, urethrovaginal fistula repair with maritious flap with island skin graft, left ureteric reimplantation over JJ stent and suprapubic catheter was placed.

Two weeks later in follow up retrograde cystogram showed no extravasation so catheter was removed and one month later left dj stent removed smoothly, patient became dry and no leak at all, no significant PVR and no Hydronephrosis.

## **Pelvic Lipomatosis: Bladder Sparing Extirpation of Pelvic Mass with Ureteral Reimplantation: A Case Report**

**Abdulaziz Albalawi<sup>1</sup>, Abdullatif Alhassan<sup>2</sup>, Abdullah Alanazi<sup>3</sup>, Abdullah Alghamdi<sup>4</sup>**

*Prince Sultan Military Medical City<sup>1</sup>, Security Forces Hospital<sup>2</sup>, Prince Sultan Military Medical City<sup>3</sup>, Prince Sultan Military Medical City<sup>4</sup>.*

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### **Background**

Pelvic lipomatosis is a proliferative disease characterised by excessive fat growth in retroperitoneal space leading to inadequate bladder drainage and ureteral compression. Cystitis glandularis, cystitis cystica, or cystitis follicularis can be found in majority of patients with the disease.

### **Case Presentation**

We report a case of a 63-year-old man diagnosed outside our hospital with pelvic lipomatosis after finding of pelvic mass behind the bladder causing severe bilateral hydronephrosis. A bladder-sparing excision of the pelvic lipomatosis mass with bilateral ureteric reimplantation was performed, thereby avoiding the need for urinary diversion.

### **Conclusion**

For patients suffering from pelvic lipomatosis and bilateral hydronephrosis, relief of obstructions to the urinary tract should be prioritized. This can be achieved through traditional surgery such as a ureteral stent insertion, or more radical surgical options such as a total cystectomy and urinary diversion. There

have been recent reports of success found in bladder-sparing techniques using mass extirpation and ureteral reimplantation.

## **Testicular Neuroendocrine Tumors: A Case Report**

**Abdulaziz Albalawi<sup>1</sup>, Abdalatif Bedaiwi<sup>2</sup>, Mutlaq Alotaibi<sup>3</sup>, Khalid Bedaiwi<sup>4</sup>.**

*Prince Sultan Military Medical City*

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### **Introduction**

Neuroendocrine tumors (NETs) are a group of malignancies arising from neuroendocrine cells throughout the body, usually called carcinoid tumors. Majority of NETs can present in the gastrointestinal tract (85%). Other sites include the lung, biliary tract, pancreas, ovaries, thymus, and rarely, the testes. Testicular neuroendocrine tumors (TNETs) represent less than 1% of all testicular tumors. We present a case of a primary TNET in Saudi Arabia, discuss the clinical and histological characteristics, diagnosis, treatment, and prognosis of this rare tumor.

### **Case Presentation**

A 47-year-old man presented with a painless right testicular mass. All tumor markers were negative. The patient underwent a high inguinal radical orchidectomy. Radiological investigations showed multiple prominent axillary, supraclavicular, mediastinal, and hilar lymph nodes and no bowel or mesenteric lesions suggesting carcinoid. Histopathology revealed a well-differentiated neuroendocrine tumor.

### **Conclusion**

TNETs are extremely rare but overall have a good prognosis. Once a testicular neuroendocrine tumor is diagnosed, it is necessary to rule out secondary origin in the gastrointestinal tract and lungs. The treatment of choice is radical inguinal orchiectomy with close follow-up, while the indications for retroperitoneal lymph node dissection in pure primary TNET remain unclear. Adjuvant treatments include chemotherapy, radiation therapy, somatostatin analogs, and  $\alpha$ -interferon. As this case highlights, physicians should consider TNETs in the differential diagnosis of testicular masses, as early diagnosis and treatment are crucial for good patient outcomes.

#### Laparoscopic Partial Nephrectomy for Multiple complex Renal Masses in a VHL Patient, A Case Report

**Hamad Al Akrash<sup>1</sup>, Hisham Ghabbani<sup>2</sup>, Abdullah Al Mousa<sup>3</sup>, Abdulaziz Albalawi<sup>4</sup>, Abdullah Al Enzi<sup>5</sup>, Ahmed Al Zahrani<sup>6</sup>, Faisal Al Saleh<sup>7</sup>.**

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Von Hippel Lindau (VHL) syndrome, an autosomal dominant hereditary disorder, is characterized by the formation of multiple and often bilateral renal tumors, alongside various other systemic manifestations. The management of renal masses in VHL patients poses a notable challenge due to the threat of tumor recurrence and the need to safeguard renal function. These patients may exhibit synchronous bilateral, multifocal tumors in the kidneys at an early age and, often experience recurrence or new tumor formation even after aggressive partial nephrectomy. In this report, we document a case of a 32-year-old male who is otherwise healthy and with family history of VHL. The patient was referred to our facility as

multiple Renal masses for further investigations. Physical examination was unremarkable. Subsequent imaging with a CT urography revealed three complex multifocal RCC masses, measuring 1.8 cm, 3.5 cm, and 3.6 cm with no lymph node involvement or distant metastasis. The patient was managed laparoscopically with partial nephrectomy with hot ischemia time of 18 mins. The histopathology result revealed 3 multifocal masses, the largest being 4 cm in its greatest dimension representing clear cell renal cell carcinoma. The histopathologic grading showed grade G3 with tumor necrosis features. The tumors were limited to the kidney parenchyma with negative Complex Renal masses can be managed with renal sparing surgery through thoroughly experienced surgeon skills. We recommend multidisciplinary team approach involved in patient follow-up also serial radiological exams to detect development and progression of VHL syndrome-associated tumours, to maintain the greatest organ function

**Anaplastic lymphoma kinase rearrangement-associated renal cell carcinoma ,Rare  
Subset case report**

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Anaplastic lymphoma kinase rearrangement-associated renal cell carcinoma (ALK-RCC) is an exceptionally rare and distinct subset of renal cell carcinoma characterized by genetic rearrangements

involving the anaplastic lymphoma kinase (ALK) gene. The management of ALK-RCC poses significant challenges due to limited treatment options and the lack of established guidelines. However, targeted therapies directed against ALK, such as ALK inhibitors, have shown potential in other ALK-positive malignancies, raising the possibility of novel treatment approaches for ALK-RCC. We present a case report of ALK-RCC in a 61-year-old male patient with a sole presentation of progressive weight loss over five months. A computed tomography (CT) scan without contrast revealed a left exophytic lower pole renal mass measuring 2 cm. The patient was managed with a laparoscopic partial nephrectomy. The histopathology diagnosis was consistent with and showed ALK-rearranged renal cell carcinoma. This case report highlights the clinical and pathological features of ALK-RCC, an extremely rare subtype of renal cell carcinoma. The diagnosis of ALK-RCC was confirmed through histopathological examination, immunohistochemistry, and molecular analysis. The rarity of ALK-RCC presents challenges in understanding its clinical behavior and optimal management. Patients with advanced stage of ALK-RCC may benefit from ALK inhibitor therapy in the near future. Further research and case reports are needed to improve our knowledge and guide therapeutic interventions for this unique renal malignancy.

**Anaplastic lymphoma kinase rearrangement-associated renal cell carcinoma ,Rare  
Subset case report**

**Muath Alahmadi<sup>1</sup>, Meshari Alzahrani<sup>2</sup>, Ibrahim Abunohaiah<sup>3</sup>, Yousuf Altuwaijry<sup>4</sup>, Osama Qasim<sup>5</sup>,  
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An increasing body of research is shedding light on the potential benefits of functional foods and nutraceuticals for health and disease prevention. Black cumin (*Nigella sativa* L.), an esteemed nutraceutical herb is recognized for its numerous health benefits by health-conscious individuals, researchers, and pharmaceutical companies. The multi-faceted pharmacological effects of black cumin and its primary bioactive compound, thymoquinone (TQ), have been shown to reduce oxidative stress and inflammation, supporting immune function, cellular viability, and energy metabolism. They safeguard against conditions such as metabolic, cardiovascular, digestive, hepatic, renal, respiratory, reproductive, and neurological disorders, as well as cancer. Black cumin acts as a countermeasure to reduce the toxicity and adverse effects of pharmaceutical drugs. Moreover, the potential effects of Black cumin on prostate health and on conditions such as benign prostatic hyperplasia and prostate cancer are not well established. This narrative review aims to identify these knowledge gaps. This is the first article that summarized in a comprehensive review the growing evidence and insights from in vitro and vivo studies that explored the potential efficacy of Black cumin (*Nigella sativa* L.) on prostate health and conditions such as BPH and PCa. This review exploring the effect of Black cumin on prostate health and investigating the potential therapeutic effect for conditions like BPH and PCa. This paper aims to direct future research to advance the potential applications of Black cumin and TQ in prostate health and diseases.

#### **Pelvic hydatid cyst 7 years follow up**

**Dr. Abdullah Alali<sup>1</sup>, Dr. Mohammed Khattab<sup>2</sup>, Dr. Atallah Alatawi<sup>3</sup>, Dr. Abdulaziz Alhuwaidi<sup>4</sup>, Dr. Saleh Alruwaili<sup>5</sup>, Dr. Muteb Bin Muhayya<sup>6</sup>, Dr. Yazeed Alwabesi<sup>7</sup>.**

Pelvic hydatid cyst has a very low incidence (range from 0.2 to 2.25 %) (1) among other site for hydatid cyst. Symptoms like dysuria, constipation, and sometimes urine retention result from the pressure effect of the space-occupying lesion.

We have one case which is male patient aged 55 years with past history of hepatic hydatid cyst excision since 22 years presented to us 7 years ago with mild chronic Dysuria and chronic Constipation proved by US and CECT to have unilocular cystic swelling measures about 53×58×53 mm in rectovesical pouch. Serological test for hydatid disease was negative. He underwent laparotomy with endocystectomy. It has been proved to be hydatid cyst.

Hydatid cyst must be included in differential diagnosis of pelvic cyst specially in endemic area.

Surgical excision of the cyst is the gold standard of treatment. Pre and post-operative treatment with chemotherapy can prevent intraoperative seeding and recurrence after surgery. (1)

This patient had been follow strictly for 3 years and then infrequent up to 7 years. And he has no evidence of recurrence anywhere with no active related urological complain, Serology were negative, CT KUB no recurrence the bladder walls, prostate and seminal vesical all are free

## Robotic Assisted excision of large angiomyolipoma after selective angioembolization

Mouath Binhazzaa<sup>1</sup>, Hassan Alzahrani<sup>2</sup>

Imam University and KFSH&RC<sup>1</sup>, KFSH&RC<sup>2</sup>

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### Introduction:

A 36-year-old female healthy referred to urology clinic as case of large angiomyolipoma. A CT angioscan showed large left kidney AML measuring 16.3 x 8x 9 cm arising from the lower pole with with aneurysmal dilatation measuring 1cm, Nutcracker Syndrome and pelvic congested syndrome.

### Materials And Methods:

First step, the patient underwent an endovascular angiography under local anesthesia. Selective embolization was successful preferred. Second step, the patient was transferred to the main operating. A 4-arm Xi with standard port placement as for left renal surgery. By using Hasson technique, a 12 mm assistant trocar is placed in the midline infraumbilical. Four 8-mm robotic trocars are placed in an oblique straight-line lateral to the rectus sheath. Medial mobilization of the left colon, pancreas and spleen was performed. The ureter was identified and isolated. The renal artery was dissected and vessel loop was placed. The AML was completely free from the kidney except the lower pole where we attached the partial nephrectomy. Renorrhaphy using a sliding weck clip technique. The operating time was 120 minutes with a warm ischemia of 11 minutes. EBL was 300 mL. No per- or postoperative complications occurred. The patient was discharged on the third day. Postoperative serum creatinine was stable. Histopathology revealed benign angiomyolipoma.

### Conclusion:

To our knowledge this the first case where the patient had large AML, nutcracker syndrome and congested pelvic syndrome treated with hybrid approach, selective embolization followed robotic excision. Robotic partial nephrectomy is a feasible option for large AML.

## A case report of high grade bladder cancer in a 25 years old male

Abdullah Alghamdi<sup>1</sup>, Salah aldin Lamy<sup>2</sup>

NGHA

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### **Introduction:**

Bladder cancer (BC) is the eighth most common cancer in Saudi Arabia with an incidence of 1.4 per 100000 and with a mean age of patient of 62.3, it's predominantly observed in the elderly, making its occurrence in young adults (<30years) an extremely rare phenomenon.

### **Case presentation:**

In this paper, we report a case of a medically free 25-year-old male, a known smoker for 10 years who experienced persistent visible hematuria with irritative urinary symptoms for one and a half years. The patient was followed in an outside hospital misdiagnosed and treated multiple times initially for urinary tract infection, then he underwent a cystoscopy which revealed multiple bladder lesions. Pathology from transurethral resection (TUR) revealed high-grade urothelial cancer, T1 with muscle in the specimen which was not involved, and same findings was seen in the second TUR.

### **Discussion:**

In such a case diagnostic delay of up to one year is common because of insufficient examination and workup, and for younger patients, it's uneasy about undergoing a cystoscopy, however, this case illustrates that high-grade invasive tumor in young patients is something we cannot afford to overlook.

### **Conclusion:**

We called for greater alertness on the part of physicians since early detection and treatment are still essential to achieving good results. This case promotes reconsideration of assumption regarding the diagnosis of urothelial bladder cancer in young patients highlighting the need for comprehensive evaluation and vigilance in managing this demographic age population.

## A rare challenging case of a huge Solitary Fibrous tumor in the kidney

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### **Background:**

Solitary fibrous tumor (SFT) is a rare mesenchymal neoplasm that is usually found in the lungs. However, SFTs originating from unusual locations such as the kidney is extremely rare. We present a case of solitary fibrous tumor of the kidney to enhance our understanding of this uncommon entity and highlight its diagnostic and management considerations.

### **Case presentation:**

A 65 year-old-male patient with many comorbidities who is presenting with a palpable large left renal mass about 25 cm on imaging with no areas of metastasis. He has abdominal distention and bilateral lower limb edema. Left open radical nephrectomy was performed, and macroscopic examination showed yellow tanned well encapsulated lesion measuring 25 cm. Histopathology results showed proliferation of bland appearing spindle cells. Immunohistochemistry markers including CD99 and STAT-6 were positive. The overall morphologic features and immunophenotypic results are consistent with solitary fibrous tumor. According to the modified risk stratification criteria, this tumor is classified as intermediate risk.

### **Conclusion:**

Up to our knowledge, this is the largest renal SFT reported in the literature and the first to be reported in Saudi Arabia. Awareness of this rare entity can aid in accurate diagnosis and management. Further research and additional case reports are warranted to broaden our knowledge of this uncommon tumor and establish standardized guidelines for the diagnosis, treatment and follow up.

## A Renomedullary Interstitial Cell Tumor in The Background of a Renal Oncocytoma: A Case Report

**Moath Qarmush<sup>1</sup>,\_Ahamad Alzahrani<sup>2</sup>, Hisham Ghabbani<sup>3</sup>, Faisal Altwijri<sup>4</sup>, Saad AlShathri<sup>5</sup>, Alwaleed Alqarni<sup>6</sup>, Nagoud Mohamed Omer Ali<sup>7</sup>.**

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### **Introduction:**

Renal oncocytomas are benign epithelial tumors which arise from the intercalated tubular cells of the renal collecting duct. They represent 3 to 7 percent of all renal tumors. However, Co-presence of a renomedullary interstitial cell tumor (RMICT) in the background of a renal oncocytoma is an event that was not yet documented in the literature. Here we report and discuss the clinical, radiological, and histopathological findings of such a presentation.

### **Case presentation:**

We investigated a 46-year-old woman with an incidental 4cm left renal lesion on pelvic MRI during her gynecological work up. Contrast abdominal CT revealed a left arterial enhancing mass with central necrosis most likely representing a renal cell carcinoma, another smaller lesion in the same kidney was also noted which raised suspicion for another focal or metastatic disease. No local or distant metastasis were noted in the abdomen or pelvis. Patient underwent a laparoscopic left radical nephrectomy. Histopathological evaluation of the kidney revealed a well-defined soft tissue mass located in the upper pole measuring 4cm consistent with an oncocytoma. Another white smaller lesion is identified measuring 0.6cm and is 1cm from the main mass consistent with a renomedullary interstitial tumor.

### **Conclusion:**

Co-Presence of RMICT in the background of a renal oncocytoma is a rare entity that can guide several medical specialties towards considering such a differential when dealing with a patient presenting with a small renal lesion in the setting of larger one. Clinical, radiological, and pathological findings in this case report demonstrates that a pathognomonic presentation does not exist, and physicians need to carefully investigate such patients using an individualized approach.

## Atypical presentation of colon adenocarcinoma invading to urinary bladder : a case report

**Abdulrahman Alquliti<sup>1</sup>, Abdulaziz Albalawi<sup>2</sup>, Hamad Al akrash<sup>3</sup>, Abdullah Alghamdi<sup>4</sup>.**

*Psmmc*

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Involvement of the bladder by colorectal cancer is sufficiently rare to be encountered by an individual surgeon on an infrequent basis. It is known that carcinomas arising in the organs neighboring the urinary-bladder can exhibit secondary bladder involvement via direct invasion. This condition is often noted to accompany primary carcinomas of the prostate, colon or rectum and female genital organs. However, metastasis to the urinary bladder in cases where the primary growth lies in a remote organ is considerably less common. We report the case of a 71-year-old male known case of BPH and passive smoker at work for 20-years .presenting in ER complaining-only from gross hematuria since 3-month that is increased in last 3-days by clots and dysuria. CTU done at ER which showed, urinary bladder dome partially exophytic mass 4x3 cm. Laboratory work-up showed Hemoglobin 6,6 g\dl. TURBT done after stabilization by 3-ways folly-catheter and manual irrigation with massive clots notice, 4-PRBCs was transfused over 2-days. cystoscopy showed large solid mass and tumor was deep in resection. Patient was discharged with folly-catheter after 2-days when urine was clear and no-complications. Unfortunately, Patient was presented again 2-days after discharge in ER complaining from foul-smelling brownish urine. CT Showed, features of colovesical-fistula. The results of immunohistochemical analyses reported as Invasive colon adenocarcinoma into bladder. Colonoscopy done and biopsy findings confirmed the diagnosis. Patient was pushed combined with general-surgery for sigmoid resection and colostomy creation with partial cystectomy. Then patient started on chemotherapy. This case is an-example of the different ways that cancer can grow, evading detection by spreading in atypical patterns. Furthermore, this condition is infrequently encountered in clinical practice.

## Exploring Renal Malignancies in Saudi Arabia: Insights from a Tertiary Care Center Study

**Abdulrahman Alsayyari<sup>1</sup>, Ahmed Alasker<sup>2</sup>, Abdullah Alhaider<sup>3</sup>, Mohammad Alghafees<sup>4</sup>, Naif Althonayan<sup>5</sup>.**

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This retrospective study aims to describe the characteristics of renal cell carcinoma (RCC) in Saudi Arabia, in terms of epidemiology, clinical presentation, tumor subtype, Fuhrman grade, tumor size and stage, and overall survival. A total of 431 adult patients with a histopathological diagnosis of RCC between 2015 and 2023 were included in the analysis. Most patients (72.4%) had clear cell tumors, followed by chromophobe (15.1%) and papillary (12.5%) subtypes. In males, papillary RCC (85.2%) was more common compared to clear cell (59.8%) and chromophobe (67.7%) subtypes. Significant differences were observed in median body mass index (BMI) across tumor subtypes, and papillary tumor patients exhibited the highest incidence of hematuria (33.3%) compared to other subtypes. The Fuhrman grade also varied significantly among RCC types. Survival times were found to be lower for patients with papillary tumors. No significant difference was observed based on patients' nationality. This study can inform clinical decision-making on patient prognosis and management as well as public health efforts aimed at reducing the alarming rise of RCC incidence.

## Combined Robot Assisted Partial Nephrectomy and Liver Transplant

Laila Alessa<sup>1</sup>, Moath Binhazza<sup>2</sup>, Hasssan Alzahrani<sup>3</sup>.

*KFSH&RC*

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### **Introduction:**

61-year-old male discovered incidentally to have a left renal mass during liver-transplant workup. He had no urological symptoms. CT scan showed a left renal mass 1.3 cm in size and a cirrhotic liver. His case was discussed with liver transplant. The decision was to proceed with combined surgery of robotic partial nephrectomy and liver transplant.

### **Materials And Methods:**

We used a 4-arm Xi da Vinci robot. Under general anesthesia, access of the peritoneum was achieved by and open technique. Four 8-mm trocars were placed in a straight line starting from 4 cm below the costal margin lateral to rectus sheath. The colon was mobilized. The left kidney was identified. Gerota's fascia was dissected until the tumor was located. A single artery and a single vein were identified. After completing demarcation of the tumor with the help of an ultrasound probe, the renal artery was clamped. We completed resection of the mass and carried out renorrhaphy with a 3-0 PDS suture. The artery was unclamped with a total ischemia time of 8 minutes. The specimen was collected within an endocatch bag and extracted out. The second and fourth port wounds were kept open for utilization by transplant surgery team. Transplant surgery initially carried out the surgery robotically, but converted to open due to bleeding. Post operatively, the patient was transferred to ICU then to the ward. Once stable, he was discharged home.

**Conclusion:**

One might think combined surgery might be technically difficult, however when thoroughly planned, it can be feasible.

**Unique manifestation of primary renal rhabdomyosarcoma in patient with autosomal polycystic kidneys: Case report and review of literature**

**Mutasim Alkhalifah<sup>1</sup>, Naif Aldhaam<sup>2</sup>, Fawaz Alkeraithe<sup>3</sup>, Abdulrahman Almutairi<sup>4</sup>, Mohamed Tashkandi<sup>5</sup>.**

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**Introductio:**

renal rhabdomyosarcomas develop from skeletal muscle progenitor cells and are a subtype of renal mesenchymal tumors., which is rare In adults, primary rhabdomyosarcomas occur seldom.

**Case presentation:**

The patient is a 32-year-old woman who has a family history of polycystic kidney disease. referred from a local hospital with a hemorrhagic left renal cyst, which received one packed red blood cell. At presentation, vital signs were stable. The abdomen was distended, and the left kidney was palpable, reaching the midline of the abdomen, abdomen soft and Lax , Hemoglobin and creatinine level normal CT of the abdomen demonstrated features of polycystic kidneys, an enlarged left kidney with a hemorrhagic component without associated extravasation( fig 1), patient she was discharged as she is stable to be followed as outpatient. Patient still symptomatic so, Repeated CT showed complex renal cyst with thick septation with enhancement with contrast extravasation suggesting active bleeding,

Angiogram done , which showed no evidence of extravasation but significant tortuous arteries were embolized as patient still symptomatic so patient taken to OR.

**Discussion:**

detection of primary renal sarcoma in individuals with RMS is challenging. Most sarcomas identical on imaging tests to renal cell carcinoma. The presented case had autosomal polycystic kidney disease and was referred to with a hemorrhagic renal cyst, which was clinically challenging to reach diagnosis which was proved histologically as RMS raising from kidney( fig 2 )

**Conclusion**

Primary renal embryonal rhabdomyosarcoma in APKD is rare with poor prognosis in adults. This patient histopathology revealed embryonal rhabdomyosarcoma..

**A Female with Urinary Bladder Leiomyoma: A Case Report**

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The majority of bladder tumors originate in the urothelium and are typically malignant. Conversely, benign mesenchymal tumors within the bladder are rare, accounting for 1-5% of all bladder neoplasms. Bladder leiomyoma, a rare benign tumor, has an approximate incidence rate of 0.43%, with around 250 documented cases. They are found in different bladder parts: 30% extravesical, 7% intramurally, and 63% endovesically. Diagnostic evaluation involves procedures like cystoscopy, ultrasound, CT, or MRI; the definitive diagnosis relies on histopathological examination.

This case involves a 36-year-old healthy female with worsening lower abdominal pain, dysuria, and a burning sensation. Initial UTI treatment showed no improvement. MRI revealed cystitis, intramural bladder mass, and minimal fluid in Douglas's pouch (Figure 1). A confirming CT scan identified a left lateral wall bladder mass (Figure 2). Cystoscopy ruled out urothelial lesions, and negative urine cytology

excluded malignancy. Open partial cystectomy successfully removed the mass, leading to a good postoperative condition. A 26-day follow-up reported persistent urinary symptoms, prompting a three-month behavioral therapy trial.

In conclusion, bladder leiomyoma, constituting less than 0.5% of bladder tumors, requires a comprehensive diagnostic approach involving history, physical examination, ultrasound, and histopathology. Surgical removal is crucial for accurate diagnosis and favorable post-surgery prognosis. Research into cytogenetic abnormalities and pathophysiology is essential for improved management and follow-up strategies.

## Rare Diagnosis of Blue Nevus of the Prostate: A Case Report from Saudi Arabia

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*security forces hospital Riyadh*

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### **Introduction:**

Prostatic blue nevus (PBN), first reported in 1963 is a rare occurrence in clinical practice, with only 35 cases being reported in the literature until 2018. It is typically characterized by a benign deposition of melanin within stromal cells.

### **Case Presentation:**

In 2016, a 59-year-old male patient, presented to our urology clinic, complaining of Lower Urinary tract symptoms one year. Digital rectal examination revealed a small nodule at the right apex. His prostate specific antigen level 1.1ng/ml. Trans rectal ultrasound biopsy results revealed benign prostatic

hyperplasia (BPH) with PBN. Alpha blockers were started for symptomatic relief. In the subsequent months, the patient was periodically followed up in the out-patient department (OPD). Ultrasound bladder and prostate performed in 2017 revealed a normal prostate size and post void residual volume. The patient's PSA levels were also within normal range. Periodic OPD follow-ups continued and nearly four years later. On his last follow-up visit in August 2023, he was asymptomatic, had a PSA levels of 1.21 ng/ml.

**Conclusion:**

Although rare, PBN must be included in the differential diagnoses of prostatic nodular growths. Patients of PBN with BPH can be managed by clinical monitoring through periodic OPD follow-ups and medical therapy. This is a rare case of a PBN patient managed with medical therapy and meticulously followed up for the last seven years on an OPD basis which showed the benign nature of this lesion.

**Bilateral Testicular Tumors; Tabuk experience with 4 cases**

**Abdelaziz Alanazi, Mshari Alanazi<sup>1</sup>, Turki Alzahrani<sup>2</sup>, Abdulrahman Alali<sup>3</sup>, Abdulaziz Alhowidi<sup>4</sup>, Mohamed Abdel-Fattah<sup>5</sup>, Amjad Khan<sup>6</sup>, Ahmed Kamal<sup>7</sup>, Fakhereddin Ismail<sup>8</sup>, Magdy El-bahnasawy<sup>9</sup>.**

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**Background:**

The incidence of bilateral testicular tumors is 1–5%. Approximately one third of the cases are diagnosed as synchronous, while the other two thirds are diagnosed as metachronous tumors. Additionally, 5% of

all patients diagnosed with testicular cancer may have contralateral intratubular germ cell neoplasia and may develop a contralateral germ cell tumor. However, few data are available regarding bilateral testicular germ cell tumors (BTGCTs).

**Material &Methods:**

Present our experience with 4 cases of bilateral testicular tumors(BTT);2 synchronous and 2 metachronous.

**Results:**

Herein we present 4 cases OF BTT. First 29 years old patient refused to be operated upon. Second 56 years old patient with synchronous tumors was operated upon in a staged manner with left high inguinal orchidectomy followed by right testicular-sparing surgery. Pathology proved to be classic seminoma.

The third was 31 years old male patients who had left high inguinal orchidectomy on 2018. He presented on 2021 with metachronous right testicular tumor which was managed by right high inguinal orchidectomy. Histopathology of both testes was mixed germ cell tumor. Previous patients showed concomitant ITGCN.

The 4th case had history of right radical orchidectomy for mixed germ cell tumor. He presented with left testicular small focal lesion which he had testicular sparing surgery and pathology was mixed germ cell tumor.

**Conclusion:**

Bilateral testicular tumors though rare should draw clinical and surgical attention. Bilateral testicular tumors have generally the same histological structure. Testicular-sparing surgery is applicable in amenable cases.

**Scrotal metastasis of colorectal carcinoma.Case report**

**Abdulaziz Almanie<sup>1</sup>, Mohammed Alkhamees<sup>2</sup>, Nahar Alsalem<sup>3</sup>, Abdulaziz Alhassan<sup>4</sup>.**

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Introduction Colorectal carcinoma (CRC) is the third most common diagnosed form of cancer and the fourth most common cause of cancer-related death globally (1). The common metastasis route of colorectal cancer is liver (60%), followed by lung (10–15%) etc. whereas skin metastasis of colorectal

cancer is extremely rare. In this case report we present a rare case of a male patient who has cancer in the colorectal which metastasized to both the liver and Skin. A 35 year-old male with moderately differentiated type II adenocarcinoma of the large bowel, presented with multiple scrotal soft tissue lesions noted 3 weeks post-operatively, and increasing in size. On examination there was Multiple scrotal hard soft tissue lesions. occupying about 35% of the scrotum with extension to the perineum. Result Histological specimens were taken with a right scrotal lesion excision. A right scrotal lesion excision specimen and a right perineal lesion specimen were taken. right scrotal lesion excision showed metastatic colonic adenocarcinoma with a tumor with a maximum diameter of 0.8 cm. The tumor was incompletely excised and it reached the cauterized resection margin. Lymphovascular invasion was positive.

The right perineal lesion excision also showed metastatic colonic adenocarcinoma with a tumor of 4 cm maximum diameter. There was a positive microscopic tumor extension to the cauterized margin and a positive lymphovascular invasion. Conclusion Testicular adenocarcinoma that metastasis from CRC is rare. The prognosis mainly depends on the presence of other metastases and the radicality of resection and recurrence.

Testicular examination should be part of the CRC physical examination.

#### Bladder Leiomyosarcoma ; A Case Report And Review Of Literature

***Mohamed Abdel-Fattah, Khaled Albalawi<sup>1</sup>, Omar Almuzaini<sup>2</sup>, Ahmed Kamal<sup>3</sup>, Mahmoud Zakaria<sup>4</sup>, Rizwan Khan<sup>5</sup>, Magdy El-bahnasawy<sup>6</sup>.***

**Introduction:**

Bladder sarcomas are rare tumors. They are reportedly to be primarily affecting men in their seventh decade of life. There are few published studies on bladder sarcomas derived from individual case reports or smaller case series. Little is known about the disease's natural course, treatment options and long-term survival rates.

**Objective:**

Present our experience with rare case of LEIOMYOSARCOMA of the bladder

**Material& Methods:**

37 years male Filipino , medical staff, single , medically free with family history of prostate cancer (his father), nonsmoker presented with frank painless hematuria . His laboratory results and urine cytology were within normal.

CT urography showed bladder mass 3x3 cm in the anterior bladder wall with no LNDs or distant mets.

Bone scan was free.

Complete TURB of the mass was done and immediate post-operative intravesical mitomycin was given.

**Result:**

Histopathology: Urinary bladder leiomyosarcoma histologic grade 2( AJCC :stage 2 N0 M0). Discussion at oncology board and with the patient for subsequent radical cystectomy and urinary diversion versus partial cystectomy with safety margin which was the patient choice.

Patient underwent partial cystectomy with -ve frozen section safety margins. Final histopathology of partial cystectomy specimen was T0 N0 M0.

Follow up cystoscopy 3 months after partial cystectomy with multiple random biopsies were free and the bladder capacity was 200 ml.

**Conclusion:**

Leiomyosarcoma of the bladder is rare malignancy with no standardized management approach.

Aggressive TURBT followed by partial cystectomy proved to be successful in the management of our case with one year follow up.

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Bilateral testicular torsion is a rare but serious condition characterized by twisting both testicles around their respective spermatic cords, leading to reduced blood flow and potential loss of the testicles. Treatment of this condition may involve surgical detorsion of the affected testicles and fixation to prevent recurrence and, in some cases, removal of severely damaged testicles. In April 2023, a systematic review of case reports was performed to examine the presentation, clinical features, diagnostic process, and management of bilateral testicular torsion. Our search encompassed the following databases: PubMed, ScienceDirect, and Google Scholar. Out of 340 studies, only eight cases met our criteria. However, this review discusses bilateral testicular torsion symptoms, investigation, and outcome.

## **Male Genital Mutilation in the Name of Ritual Circumcision: A Case Report and Literature Review**

**Alhareth Baarimah**

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Unlike female genital mutilation, the alteration of male genitals has not received much attention. Circumcision is the most common and oldest surgical procedure being performed. When performed by surgeons or well-trained personal the procedure is safe, but most of the times it is being performed by untrained people with no or little medical background. This has led to many complications. Total skin loss is an uncommon but serious complication. There is an ongoing debate regarding the management of this complication. Here, we present a case of total penile skin loss which had resulted from penile mutilation in the name of ritual circumcision.

## A case report of Cobb's collar with posterior urethral valves: a rare entity

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### **Background:**

Posterior urethral valve (PUV) is a congenital disorder typically presenting in the neonatal period and is associated with the obstruction of the urinary tract. Cobb's collar is congenital narrowing of bulbar urethra in infants. It can lead to significant morbidity, which may include irreversible renal failure if left untreated.

### **Case presentation:**

A 21-month-old child presented with acute retention of urine and distended lower abdomen. His baseline tests were normal. Ultrasound KUB showed grossly enlarged bladder with almost 1100-ml residual urine. Foley's catheterization attempted but failed. Urgent cystoscopy was planned where congenital anterior urethral stricture with posterior urethral valves was seen. DVIU done for urethral stricture followed by fulguration of posterior urethral valves. The patient was discharged from hospital the next day. To best of our knowledge Cobb's collar association with posterior urethral valves is the 2nd case to be reported till now and 1st in Pakistan.

### **Conclusion:**

A congenital narrowing of the bulbar urethra is uncommon. Though it is rare, it can occur concomitantly with PUV. If this double pathology is missed can result in serious consequences. Children with recurrent urinary tract infections should be ruled out for anterior urethral strictures.

## Comparative efficacy of different surgical techniques for paediatric urolithiasis- A systematic review and meta-analysis

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### Background:

Previous studies evaluated various surgical modalities for kidney stone treatment in pediatric urolithiasis, highlighting the need for individualized treatment strategies and demonstrating the versatility of Percutaneous Nephrolithotomy (PCNL), Retrograde Intrarenal Surgery (RIRS), and Shock Wave Lithotripsy (SWL) in treating a range of stone sizes. This study aimed to evaluate the efficacy of different surgical techniques for pediatric urolithiasis.

### Methods:

A systematic review and meta-analysis were conducted based on PRISMA guidelines. Seven databases were searched to retrieve relevant studies. These studies were then analyzed to compare the Stone-Free Rate (SFR) and complication rates of PCNL, RIRS, and SWL.

### Results:

The SFR comparison showed no significant difference between PCNL and RIRS (OR 1.43, 95% CI 0.67-3.05,  $p=0.36$ ). However, PCNL and RIRS were found more effective than SWL (OR 2.51, 95% CI 1.19-5.29,  $p=0.02$  and OR 2.42, 95% CI 1.41-4.14,  $p=0.001$  respectively). As for the complication rates, no significant difference was found between the surgical techniques, but with varying types of complications reported. PCNL, in some studies, was linked with higher complications, particularly urinary tract infections and gross hematuria.

### Conclusion:

While PCNL and RIRS were found to be more effective than SWL in achieving SFR, no significant difference was found in the complication rates among the three procedures. The study emphasizes the importance of individualized treatment strategies, considering factors such as stone size, location, and patient characteristics.

## Late Presentation and Diagnosis of Posterior Urethral Valves Combined with a Large Bladder Diverticulum: A Case Report

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### **Background:**

Posterior urethral valves (PUVs) the predominant cause of obstructive uropathies in males, often manifest prenatally or at birth. Despite routine prenatal ultrasounds, delayed diagnoses may arise in childhood, adolescence, or adulthood. This case highlights a late presentation of PUVs causing obstruction with a bladder diverticulum in a boy experiencing acute kidney injury.

### **Methods:**

A 7-year-old boy presented with flank and penile pain, dysuria, and dark urine. Examination revealed suprapubic tenderness, palpable right kidney, and no meatal stenosis. Laboratory results showed slightly elevated serum creatinine (102 mmol/L). Renal ultrasound indicated bilateral hydroureteronephrosis, a thickened bladder wall (13mm), and a large left-sided bladder diverticulum. Voiding cystourethrogram (VCUG) revealed irregularities, trabeculations, and multiple diverticular outpouchings, the largest was seen on the left posterior and measures around 3.8 x 3 cm without vesicoureteral reflux.

### **Results:**

Post supportive management, cystourethroscopy unveiled a free anterior urethra, dilated posterior urethra with high bladder neck and type 1 PUV distal to the veru monotanum. Suprapubic pressure testing confirmed a weak stream. PUV ablation at 5, 7, and 12 o'clock positions using a 9 French Urethrotome. Postoperatively, urine stream was adequate, and the patient was discharged with serum creatinine at 85 mmol/L. Follow-up showed negative urine cultures, normal renal ultrasounds, and mild regression of dilatation.

### **Conclusions:**

Clinical suspicion for PUVs is crucial in boys presenting with flank pain or urologic symptoms. When PUVs are suspected on VCUG, precise cystourethroscopy is essential for accurate diagnosis. Fulguration of PUVs can be curative, but long-term follow-up is imperative.

## **Prolapsing Ectopic Ureterocele in a female neonate presented with Acute Kidney Injury and Septicemia: Emergency Surgical Management.**

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### **Background:**

A prolapsing ureterocele, often associated with the upper pole moiety of a duplex-kidney which causes varying degrees of obstruction, and the resultant urinary retention may present emergently and manifests as an inter-labial mass. This report details a case in a female neonate with a prolapsing ureterocele, bilateral hydronephrosis and postnatal acute kidney injury with sepsis.

### **Methods:**

A full-term neonate, prenatally diagnosed with bilateral hydronephrosis, exhibited a postnatal ultrasound confirming bilateral hydronephrosis and intravesical ureterocele. A voiding cystogram revealed a large intravesical ureterocele and left grade IV VUR. On day-4, she presented to our hospital with a vaginal bulge, fever, and high serum creatinine. The genital exam showed a smooth bulge protruded from the urethra. Urgent ultrasound showed bilateral hydronephrosis. Admitted to NICU for acute kidney injury and sepsis.

### **Results:**

A bedside puncture of the ureterocele failed, prompting urgent diagnostic cystoscopy and incision with deroofting under general anesthesia. Intra-operatively, a large hematoma was drained from the ureterocele, Two ureteric orifices were identified from the left duplex-kidney, each catheterized. Post-op, urine cleared, left hydronephrosis resolved, and right hydronephrosis mildly improved. Catheters were removed on day 10. Blood culture revealed *Enterobacter cloacae*; antibiotics were administered for 14 days. Post-op serum creatinine dropped to 30  $\mu\text{mol/L}$ , and the patient was discharged infection-free with normal renal function.

### **Conclusions:**

Prolapsing ureterocele, mainly affecting girls, can cause bladder outlet obstruction. Urgent intervention involves incision of the ureterocele near its bladder insertion. In cases with combined bladder and kidney obstruction, urgent cystoscopy with kidney drainage is essential.

## **Hutch Diverticulum With Obstructed Mega Ureter In A Posterior Urethral Valve Patient; An Uncommon Association**

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### **Abstract**

Hutch diverticulum is a rare congenital abnormality characterized by a distinctive variant of bladder diverticulum positioned near the ureteral hiatus, which can potentially trigger vesicoureteric reflux due to intramural ureter extravasicalisation. This condition can manifest with diverse clinical presentations, including recurring urinary tract infections (UTIs) and urinary retention. It poses unique diagnostic and therapeutic challenges.

We present the case of an 18-month-old male patient who presented with severe bilateral hydronephrosis and a large bladder diverticulum, specifically a Hutch diverticulum. The initial symptom was vomiting, prompting further diagnostic procedures. Ultrasound, voiding cystourethrography, magnetic resonance urography, and nuclear scan were performed, confirming the diagnosis and identifying a large bladder diverticulum without vesicoureteral reflux.

Cystoscopy was subsequently performed, revealing the presence of a posterior urethral valve (PUV). The PUV was ablated during the procedure. However, despite initial improvement, hydronephrosis persisted after catheter removal, necessitating bladder diverticulectomy and left ureteric reimplantation. The surgical intervention was successful, leading to the resolution of symptoms.

This case highlights the importance of timely diagnosis and appropriate management to prevent long-term complications associated with Hutch diverticulum.

**Keywords:** hutch bladder diverticulum, hydronephrosis, pediatric urology, posterior urethral valve, surgical management.

## **Surgical Resection of Seminal Vesicle Cyst in a 13-Month-Old Male Patient with Zinner Syndrome: A Case Report from Saudi Arabia**

**Abdullah Al Jafar<sup>1</sup>, Mustafa AlGhanbar<sup>2</sup>, Faisal Almutairi<sup>3</sup>, Abdullatif Alhassan<sup>4</sup>.**

*security forces hospital riyadh*

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Zinner syndrome (ZS) is a congenital anomaly rarely witnessed in pediatric clinical practice. It is characterized by a triad of renal agenesis accompanied by ipsilateral seminal vesicle cyst (SVC) and ejaculatory duct obstruction. In most cases it gets diagnosed incidentally during adulthood, while investigating non-specific urinary symptoms or sexual disturbances.

We report the case of a male neonate from Saudi Arabia, diagnosed antenatally on an ultrasonography (USG), with an abdominal cyst arising from the right renal region. Post-natal investigations comprising USGs, magnetic resonance imaging (MRI) scan, a micturating cystogram (MCUG), and a dimercapto succinic acid (DMSA) scan conformed the classical triad of ZS. Until the age of 12 months, the patient was followed up with regular clinical visits and periodic USGs, the SVC had shown progressive enlargement on successive USGs, it was palpable in the right lower . At this juncture, surgical intervention was recommended. The patient underwent laparoscopic resection of the right SVC. Post surgical recovery was uneventful.

To the best of our knowledge, this is the first reported case of ZS, diagnosed in a pediatric patient from Saudi Arabia. This is also one of the very few pediatric cases of ZS, reported in the literature so far. We believe this is also the first reported case of an uneventful surgical resection of SVC, at merely 13 months of age, in a pediatric patient having ZS. Surgical intervention is the only definite treatment for symptomatic pediatric cases of ZS. Asymptomatic cases need to be monitored closely and managed conservatively.

## The Efficacy of Endoscopic Deflux Injection in VUR with Duplex System: A Systematic Review and Meta-Analysis

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### **Objective:**

Our primary objective was to conduct a systematic review assessing the efficacy of deflux in treating vesicoureteral reflux (VUR) within duplex systems. Additionally, we aimed to perform a meta-analysis to evaluate post-treatment changes, specifically focusing on the reduction of infections and associated complications.

### **Methodology:**

This systematic review and meta-analysis were conducted according to the PRISMA guideline. Comprehensive research was conducted by gathering pertinent literature spanning from 1993 to 2023 through online platforms like PubMed, Web of Science, Google Scholar, and the Cochrane Database. Two authors independently collected essential information, encompassing author details, study region, design, treatment, publication year, sample size, complications, failure rate, inclusion/exclusion criteria, urological conditions, single vs duplex systems, injection type, VUR grades, etc.

### **Results:**

After the final screening, 12 pertinent studies were identified. Out of these 20 studies featured endoscopic deflux injection. One study lacked complete information and was excluded. Ultimately, eleven studies, involving a total of 859 patients in duplex systems, were included for analysis. The majority of these studies utilized deflux injection material, with two studies comparing it with single

systems. Quality assessment indicated that two studies provided sufficient information on success rates across all VUR grades, while several overlooked grading and complications in their research.

**Conclusion:**

The meta-analysis highlights the promising efficacy of endoscopic Deflux injection for treating VUR in duplex renal systems, suggesting it as a potential preferred therapeutic choice. Clinicians should weigh these findings when deciding on VUR treatment for patients in duplex systems.

## **Successful Laparoscopic Management of Retroperitoneal Necrotizing Fasciitis: A Case Report**

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Necrotizing fasciitis is a soft tissue infection characterized by rapid progression caused by gas-forming organisms. Retroperitoneal necrotizing fasciitis is a rare and fatal condition posing a diagnostic and management challenge. We present a case of a 28-year-old man who presented to the emergency department with a two-day history of diarrhea, right lower quadrant abdominal pain, dysuria, and a history of tender perianal swelling. A CT scan of the abdomen and pelvis showed extensive emphysema involving abdominopelvic retroperitoneal spaces. The patient underwent incision and drainage of the perianal area initially followed by diagnostic laparoscopy and drainage of retroperitoneal space. Early detection and extensive debridement of devitalized tissue are the cornerstones of the successful management of necrotizing fasciitis. This is the first case to report laparoscopic management of retroperitoneal necrotizing fasciitis.

**A successful open neocystolithotomy in studer neobladder with Mitrofanoff for multiple large neobladder stones: A case report and review of the literature**

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**Background :**

Urolithiasis is well-known late complication of orthotopic neobladder. We report a case of multiple large stones in studer neobladder with Mitrofanoff procedure six years after cystectomy which required an open neocystolithotomy.

**Method :**

A 25-year-old female patient with history of studer neobladder and Monti valve using the appendix (Mitrofanoff procedure) because of emphysematous cystitis. The patient presented in our hospital with recurrent UTI, abdominal pain, hematuria, and difficult catheterization through the valve. Computed

Tomography shows multiple large stones in the neobladder. (Figure 1A) Trials of neocystolitholapaxy and neocystolithotripsy through the urethra have failed. After that, an open neocystolithotomy of the studer neobladder at the anterior abdominal wall near lower midline was done, and there were approximately 14 large stones that were retrieved completely. (Figure 1B) Then primary repair was done of the studer neobladder with omental interposition as a barrier of suture lines to avoid enterocutaneous fistula. Stone analysis showed struvite 30%, carbonate apatite 46%, and whitlockite 24% of the stone composition. Follow-up with cystogram 14 days post-operative showed intact neobladder wall without evidence of leak or fistula. (Figure 1C)

**Result :**

Calculus formation in patients with urinary diversion has been reported as 3% only and in others as 9%. Tafuri et al. reported neobladder stones 12 years after undergoing radical cystoprostatectomy. They managed with open neocystolithotomy with 50 stones in total. Reservoir irrigation was statistically significant in reducing the stones.

**Conclusion:**

Open neocystolithotomy is an effective method for removing multiple large stones in a neobladder.

**Urofacial Syndrome; An Expressive and Unmasking Sign of Voiding Dysfunction: Case Series and Review of the Literature**

**Fawaz Alkeraithe<sup>1</sup>, Waleed Altulayqi<sup>2</sup>, Mutasim Alkhalifah<sup>3</sup>, Faisal Alasmari<sup>4</sup>, Mohammed Asiri<sup>5</sup>, Ahmad Alhazmi<sup>6</sup>**

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**Background :**

Urofacial syndrome (UFS), rare genetic disorder with an inheritance pattern of autosomal recessive. Approximately 150 cases have been reported in the literature.

**Case 1 :**

A 24 year-old female patient with history of recurrent UTI, and chronic retention. She has inverted facial expression when smiling that affects her social life. (Figure 1A-B) Cystogram showed trabeculated wall with few diverticular outpouching exhibiting a Christmas tree appearance. (Figure 1C) She was managed with CIC every 4 hours and was counselled about Sacral Neuromodulation (SNM). Her urinary habits improved with the device and was able to void with decrease frequency of CIC use. A genetic testing revealed pathogenic homozygous variant at LRIG2 gene confirming the diagnosis of UFS.

**Case 2 :**

A 27-year-old female patient with history of recurrent UTI, chronic retention and left flank pain. She has inverted facial expression that is noticed when she smiles. (Figure 1D-E) VCUG showed trabeculated bladder with irregular outline, left grade V VUR (Figure 1F). She was managed with CIC and trial of SNM device insertion. Her urinary habit improved and was able to void with decrease use of CIC. A genetic testing confirmed the diagnosis of UFS.

**Result :**

100% of UFS patients has trabeculated bladder, 64% has VUR. Three components have been described for UFS that are not necessarily always present for the diagnosis: voiding or defecation dysfunction, inverted facial expression, genetic component.

**Conclusion :**

Early recognition of UFS is essential to prevent further upper tract deterioration by examination of facial expression.

**Buccal Mucosal Graft Urethroplasty In A Patient With Epidermolysis Bullosa ; A Case Report**

**Dania A Alseini<sup>1</sup>, Hossam S El-Tholoth<sup>2</sup>, Tala Al-Afraa<sup>3</sup>**

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**Case report: Buccal mucosal graft urethroplasty in Behçet's disease**

**Introduction:**

Behçet's disease is a chronic multisystemic disorder. That is characterized by mucocutaneous manifestation, including genital ulceration.

We present a patient with pan urethral stricture who underwent buccal mucosal graft urethroplasty.

**Case presentation:**

A 47-year-old male patient, known to have Behçet's disease with refractory ulcers, diabetes mellitus, hypertension, and hypothyroidism.

The patient presented to the urology clinic in 2011 complaining of voiding lower urinary tract symptoms, and no history of hematuria or acute urinary retention.

He had a history of urethral stricture before and underwent multiple urethral dilatation and visual internal urethrotomy.

Physical examination showed normal external urethral meatus and no genitalia ulcers.

His serum creatinine was normal, and his ascending urethrogram showed pan urethral stricture.

In 2013 he underwent buccal mucosal, harvest was taken from both cheeks, as the stricture was long.

Over 10 years of follow-up, the patient was still bothered by chronic dysuria.

All urine investigations came back negative for infection, improved uroflowmetry which showed bell shaped curve with Qmax 40 ml/sec, and the urethrogram showed normal caliber urethra without recurrence of stricture. No significant improvement in American Urological Association symptom index (AUA-SI) and quality of life score. Numerous cystourethroscopies showed inflamed urethra rather than stricture.

**Conclusion:**

This case report doesn't provide supporting evidence for using BMG in urethroplasty for patients with Behçet's disease and urethral stricture.

**Post-traumatic Renal Arteriovenous Malformation failed endovascular embolization**

**Mohanned Alomairi<sup>1</sup>, Ali Alyami<sup>2</sup>, Ali Alothman<sup>3</sup>, Yahya Ghazwani<sup>4</sup>, Nasser Albqami<sup>5</sup>, Faisal Balaraj<sup>6</sup>.**

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Renal AVMs are classified into: congenital renal AVMs, with a prevalence of less than 1% among the general population and acquired renal AVMs which commonly called AVFs which comprise about 70–80% of renal arteriovenous abnormalities. They are frequently associated with iatrogenic injuries, such as surgery, renal biopsy, penetrating or blunt trauma, and malignant renal tumors. Renal AVMs are usually asymptomatic, although hematuria is the most common presentation due to rupture of the AVMs into the renal calyces. Patient may also present with flank pain caused by blood clot obstructing the urinary systems. Other clinical presentations include abdominal mass, perinephric hematoma, high output heart failure and hypertension of unknown cause. Angiography is the gold standard for diagnosing renal AVMs, however noninvasive imaging such as ultrasound US, computed tomography CT, or magnetic resonance imaging MRI are initial diagnostic method for evaluation, which provide a quick and highly accurate diagnosis. The majority of renal AVMs are treated conservatively. Endovascular therapy with embolization is considered the treatment method of choice in symptomatic patients, while surgical interventions are reserved for unstable patients or patients with vascular anatomical difficulties. In the present report, we describe the case of a 32-year-old man with renal AVMs following a motor vehicle accident with failed endovascular embolization, which was successfully treated with open fistula ligation.

#### **Complex penile fracture after straddle injury: A case report**

**Ahmed Almuhanha<sup>1</sup>, Turki Alessawi<sup>2</sup>, Basim Alghorairy<sup>3</sup>, Sara Albagshi<sup>4</sup>, Hany Elkordy<sup>5</sup>, Ali Alali<sup>6</sup>.**

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**Introduction**

Penile fracture is an uncommon surgical emergency that occurs as a result of trauma to the erect penis mainly during intercourse. Penile fracture is a rupture of the tunica albuginea and most often occurs during sexual intercourse, usually after slipping the penis out from vagina and hitting the symphysis pubis.

Often patients present with a cracking or popping sound accompanied by immediate detumescence, followed by rapid swelling, ecchymosis, sharp pain, and deformity

We report a rare case of a complicated penile fracture due to straddle injury from falling from height.

**Case report:**

A 23-year-old male presented to the emergency department with complaints of scrotal swelling and pain for three hours due to fall from height on perinium. He had classic signs of a urethral injury and penile fracture. On physical examination he had blood at the meatus, scrotum swelling, butterfly perineal ecchymosis, and he was unable to void. Radiological images done with X-ray confirmed a pelvis fracture, computed tomography (CT) showed right proximal corpora cavernosa and spongiosa ruptures (Figure ). Foley catheter was succeeded after gentle single attempt, he underwent scrotal exploration for hematoma evacuation and right proximal corpora cavernosa and spongiosa repair. Currently the patient voids freely.

**Conclusion:**

Penile fracture is not always spared injury and does not always occur during erection, but is sometimes associated with other injuries and in flaccid phase.

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### **Conclusion:**

This case report doesn't provide supporting evidence for using BMG in urethroplasty for patients with Behçet's disease and urethral stricture.

**A Case Report of a Neglected Double-J Stent For 30 Years In a Transplanted Kidney** Dania A Abdullah Alghamdi<sup>1</sup>, Salah aldin Lamy<sup>2</sup>, Fadil Hassan<sup>3</sup>, Riyadh Alloqmani<sup>4</sup>, Abdullah Qashqari<sup>5</sup>, Abdulrahim Mirza<sup>6</sup>.

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### **Introduction**

Neglected Double-J (DJ) stents are linked to several complications. These complications are more devastating when the patient has a single functioning transplanted kidney.

### **Case presentation**

This is a 44-year-old female known to have end stage renal failure underwent renal transplantation in United States in 1993. A DJ stent inserted at the time of transplant to protect vesicoureteral anastomosis. Unfortunately, the patient lost transplant follow-up after she came back to Saudi Arabia. Patient presented to our hospital with history of recurrent UTI and AKI. Imaging showed severe hydronephrosis with DJ stent in place surrounded by calcification and bulky encrustations. Nephrostomy tube was placed to relieve the obstruction, then patient was taken electively for open nephrolithotomy with cystoscopy and cystolitholapaxy.

### **Discussion**

In this case report our patient retained his forgotten ureteral stent for 30 years following his renal transplantation. To the best of our knowledge, this is the longest documented time for a forgotten ureteric stent in a transplantation patient.

Several modalities can be used for nephrolithiasis in transplanted kidneys, as currently there is no guidelines exist for the effective management of forgotten stents. Usually, the choice is based on the stone size, position of the transplanted kidney, and surgeon's experiences.

### **Conclusion**

Neglected stents can have serious long-term impacts, so finding ways to reduce their interval is essential. This case demonstrates that a multimodal endourological and open surgery technique can safely remove a heavily encrusted stent. Urologists need to pay attention to informing and educating patients on post-operative procedures and follow-up.