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INTERNATIONAL CONFERENCE - UPDATE IN FUNCTIONAL UROLOGY

15-16 September 2022

Târgu Mureș, Romania

BOOK OF ABSTRACTS

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AGING BLADDER - STATE OF THE ART

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Aging, taking place in a cell or an organ, is defined by progressive physiological changes, decline of biological status and of the organism's ability to adapt to metabolic stress. It leads to an increased risk of debility, a diversity of pathology and finally death. Defining causes of aging is a very difficult task, there is evidence for many different theories, but there is no consensus, it seems that oxidative stress, general wear-and-tear and genetic instability, mitochondrial genome damage, telomere shortening etc. are encountered in this direction. Among cardiac, neurologic etc. pathology, urinary system shows during aging (starting from 25 years of age) a lot of senescence process like: decline of the nephron nr.(30 – 40%), atherosclerosis of the glomeruli, reduce of kidney`s blood support, reduction of the reserve capacity of the kidney. As of the bladder during aging there are several changes which lead to lower urinary tract symptoms -LUTS (voiding and filling). In the lecture the author gives an overview on aging bladder, she underlines the complexity of the urological management of elder patients, which has to take into account the age, urogenital and associated pathology of the patients. She also points out the importance of urodynamic investigations in the management in cases of older patients, presenting LUTS.

PERCUTANEOUS NEPHROLITHOTOMY VS FLEXIBLE URETEROSCOPY. COMPETING OR COMPLEMENTARY TREATMENT METHODS FOR RENAL LITHIASIS? STATE OF THE ART

Daniel Porav-Hodade[1]

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Urinary lithiasis is the most common pathology in the practice of the urologist. The incidence depends on different factors, the most important being geographical, climatic, ethnic, dietary and genetic. The prevalence of this pathology is variable, with limits between 1-20%, representing a pathology with a prevalence >10% in countries with a high standard of living.

Considering the technological advances in endoscopic surgery, the question arises regarding the place of percutaneous nephrolithotomy (PCNL) in the era of flexible intrarenal surgery addressed to renal lithiasis (RIRS).

The total complication rate after RIRS is 9-25% and the risk of urosepsis is approximately 5%. In case PCNL fever (10.8%), transfusion (7%), chest complications (1.5%), sepsis (0.5%), organ damage (0.4%), embolism (0.4%), urinoma (0.2%), death (0.05%) are the most the most frequently encountered complications.

The dose of radiation administered is similar in the case of large stones.

On the other hand, the cost of purchasing and maintaining the instruments is much higher in the case of flexible ureteroscopy vs PCNL (approx. $ 1200 vs. 300).

These aspects, along with others, raise the question regarding the type of endoscopic intervention indicated in the case of renal lithiasis.

THE SURGICAL MANAGEMENT OF MALE STRESS URINARY INCONTINENCE -STATE OF THE ART

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The male stress urinary incontinence (mSUI) is developed mostly after radical prostatectomy and decrease the Quality of the Life of the patients. In case of ineffective conservative treatment surgical therapy can be performed. In serious mSUI is the artificial urinary sphincter (AUS) implantation the best solution. It provides a very high success rate, but complications (mechanical failure, infection, urethral erosion, urethral atrophy, etc) can be occurred. For mild or moderate SUI can we perform the different types of male incontinence slings. There are fix and postoperative adjustable tapes also. Opposite to the AUS the rate of the complications is lower, and the technique of the operations is simpler.

In the lecture the author gives an overview on the male stress urinary incontinence surgeries. He introduce the obligatory preoperative diagnostic procedures, the indications, the forms of the procedures, the complications, and their therapies.

POST-PROSTATECTOMY URINARY INCONTINENCE - STATE OF THE ART

Robert Stoica

Carol Davila University of Medicine and Pharmacy; Fundeni Clinical Institute, Bucharest, Romania

The main cause of urinary incontinence in men is radical prostatectomy, regardless of the way it is performed (open, laparoscopic or robot-assisted). Up to 28% of the patients that undergo radical prostatectomy require an absorbent pad for two years after surgery, and more than 50% have moderately to severe symptoms. The rate of urinary incontinence is between 4-31% for robot-assisted prostatectomy and between 7-40% for open radical prostatectomy. For correct management, a rigorous history (specifying the duration and type of incontinence), assessment of the patient's symptoms using a voiding diary, assessment of the severity of symptoms using standardized Pad test and the standing cough test, perineal neurological assessment, cystoscopy, pressure-flow study and optional urethral profilometry are required. Post prostatectomy urinary incontinence management consists of behavioral changes, urinary contaiment methods (absorbents, penile clamp), pelvic floor muscle training, biofeedback, electrical / magnetic stimulation of the pelvic floor, duloxetine pharmacotherapy, periurethral bulking agents (limited efficacy), male slings (intended for mild incontinence) or artificial sphincter implant (used in cases of severe incontinence or refractory to other treatments). The artificial sphincter is recognized as the most effective anti-incontinence device and represents 12% of procedures for this pathology. The key to therapeutic success is the optimal selection of the patient for the available treatment methods, in order of their invasiveness.

TREATMENT OF ERECTILE DYSFUNCTION IN PATIENTS WITH LUTS PATHOLOGY - STATE OF THE ART

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"Nicolae Testemitanu" University of Medicine and Pharmacy, Chisinau, Republic of Moldova.

Introduction: Erectile dysfunction and lower urinary tract symptoms are common for the same man. According to our previous studies, about 15,7% of men up to 40 years old and 62% over this age have erectile and urinary complaints. For the young patient, the symptoms of the lower urinary tract are often caused by chronic prostatitis, and in the elderly, they are the result of prostate tumor pathologies or an overactive bladder. At the same time, there are situations when erectile dysfunction can be the cause of LUTS or can exacerbate the charges caused by another pathology.

The aim of the study is to evaluate whether the treatment of erectile dysfunction will improve the symptoms of LUTS? Or if and in which situations LUTS treatment improves erectile function?

Material and methods: The study is based on the analysis of specialized literature, as well as the experience of the urology clinic of USMF "Nicolae Testemițanu", on a group of 784 patients with erectile dysfunction, including 351 with the concomitant presence of LUTS.

Results and discussion: The administration of PDE5 inhibitors in low doses and day by day regimen improves LUTS and erectile function in patients over 40 years old, after 4 weeks in about 48% of cases. Concomitant administration of α-receptor blockers has more beneficial effects than the monotherapy regimen. At the same time, about 85% of patients with chronic prostatitis and 29,2% with benign prostatic hyperplasia or overactive bladder suffer from anxiety caused by painful or voiding syndrome. Therefore, psychological counseling methods will be applied, anxiolytic or anti-inflammatory drugs will be administered. There are situations when surgical intervention for the treatment of infravesical obstruction improves erectile function, however, the age of the patient and the presence of associated pathologies require the administration of complex drug treatment.

Conclusions: The treatment of erectile dysfunction for patients with LUTS will be individual and complex with an accent on drug therapy with PDE5 inhibitors, α-receptor blockers, phytotherapeutic, anti-inflammatory or anxiolytic drugs.

Keywords: erectile dysfunction, LUTS, PDE5

BLADDER SPHINCTER DYSSYNERGIA: A RETROSPECTIVE STUDY OF PATIENTS FROM MURES COUNTY CLINICAL HOSPITAL, CLINIC OF UROLOGY

Ciprian Popescu[1], Călin Chibelean[1,2], Maria-Veronica Ghirca[2], Orsolya Martha[1,2]

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Introduction: Bladder Sphincter Dyssynergia (DSD) is one of the rare causes in the etiology of LUTS at patients but can have severe complications (recurrent urinary tract infection, chronic kidney failure. etc.) so an early diagnosis including urodynamic study (UD) can ensure proper management. The aim of the study is to determinate the importance and place of urodynamic determinations in diagnostic and treatment of DSD.

Material and methods: A retrospective study included 250 UD studies in men and women (with various conditions: acontractile or hypocontractile bladder, detrusor hyperactivity, DSD, etc.) between January 2018-2021 December, in the Urology Clinic of the Mures County Clinical

Hospital. We selected 31 cases diagnosed with DSD, 21 of those were in men and 10 of them in women, who were divided according to age, neurological comorbidities or without, other associated pathologies.

Results: From the 250 urodynamics analyzed, 31 patients were diagnosed with DSD. We divided patients into age groups, average age was 43.38 years old. At the majority of the patients it was observed post void residual volume 77.4% (24 patients), the rest of the patients 22.60 % presented inability to urinate (7 patients). Post void residual volume under 50 ml was present in 12.5% (3 patients), between 50-100 ml in 29.2% (7 patients), over 100 ml post-void residual in 58.3% (14 patients). Q-max average was 8ml/s (2ml/s-17ml/s) . 51.6% (16 patients) had bladder pressure over 80-100 cmH2O, 81% of men and 31% of women had bladder pressure over 80 cmH2O. Average bladder pressure was 99.36 cmH2O (50-250 cmH2O). Only 11 patients (35.5%) had a confirmed neurological disease. The therapeutic possibilities were depending on age, detrusor pressure, associated diseases. We applied the following therapeutic methods: Pelvic floor reeducation, intermittently or permanently autocatheterization, alpha-blocker treatment, ITUP.

Conclusions: DSD with rare prevalence. Given the consequences, the important complications it produces require a complex diagnostic of UD as early as possible in order to properly manage.

Keywords: Bladder Sphincter Dyssynergia, LUTS, urodynamic study

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PREDICTORS OF PERSISTENT DETRUSOR OVERACTIVITY AFTER TRANSURETHRAL RESECTION OF THE PROSTATE

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Introduction and objectives

Introduction: Overactive bladder syndrome has always been a controversial subject in urology, in terms of its definition, which has oscillated over time between urodynamic and clinical criteria based on symptomatology.

The aim of the study is to determine which clinical and urodynamic variables may be related to persistent detrusor hyperactivity after transurethral resection of the prostate.

Materials and methods: This is a retrospective study analyzing 164 patients who presented subvesical obstruction due to benign prostatic hyperplasia treated by transurethral resection of prostate in our clinic between January 2021 and April 2022. From the total of 164 patients, 13 patient (8%) were subject preoperative urodynamic investigations (pressure- flow study), being suspected of neuro – urological disorders, respectively with 3 patients overactive detrusor, 7 patients with hypocontractile detrusor, 1 patients with acontractile detrusor and 2 patients with normocontractile detrusor. Preoperative clinical and urodynamic variables were correlated with resolution of postoperative detrusor overactivity.

Results: The 3 patients with overactive detrusor are aged 62, 76 and 79. Patients with more obvious detrusor hyperactivity preoperatively were older and had a higher I-PSS (19 vs 25 vs 26) and a higher peak flow (8.6 vs 6 vs 6.6 ml /sec). Detrusor hyperactivity persisted in patients aged 76,79 having a cystometric capacity of less than 250 ml compared to the 62- year-old patient with a capacity of more than 250 ml. When analyzing the urodynamic variables together, persistent detrusor hyperactivity is identified in patients with maximum cystometric capacity less than 250 ml and amplitude of detrusor hyperactivity greater than 40 cm H2O.

Conclusions: Advanced patient age together with reduced maximum cystometric capacity, early and high amplitude of detrusor overactivity are the most important predictors of persistent detrusor overactivity after transurethral resection of prostate.

Keywords: detrusor overactivity, benign prostatic hyperplasia, transurethral resection of prostate.

RISK FACTORS FOR URINARY INCONTINENCE SURGERY IN WOMEN

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This study focused on identifying risk factors for urinary incontinence surgery in women.

In minimising the risks in surgery for urinary incontinence in women it is important to use a correct and complete set of diagnostic tools including correct and complete anamnesis and clinical examination, suprapubic, transperineal, introital and intravaginal ultrasound, cough stress test, standing up clinical examination, urodynamic studies in selected cases.

It is also mandatory to diagnose association of urinary incontinence with pelvic organ prolapse and other comorbidities.

Knowledge of the complications which may result from surgical procedures for stress urinary incontinence is important for appropriate preoperative counselling. Complications addressed in this study include failure to cure incontinence, bleeding, infection, intraoperative damage to viscera, voiding dysfunction, osteitis pubis, nerve injuries, sling erosion, tethered vagina, genital prolapse and dyspareunia.

Keywords: urinary incontinence, pelvic organ prolapse, voiding dysfunction

POSTOPERATIVE FUNCTIONAL RESULTS IN A PATIENT WITH ZINNER SYNDROME

Ciprian Todea-Moga[1,2], Veronica Ghirca[1,2], Daniel Porav-Hodade[1,2], Călin Chibelean[1,2], Adrian Chiujdea[2], Raul Gherasim[1,2], Rares Vascul[2], Emoke Dragus[2], Orsolya Martha[1,2]

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Introduction: Zinner syndrome reprezents a congenital desease characterized by unilateral renal agenesis, seminal vesicle cyst and vas deferens obstruction on the affected side. In most cases, the disease is asymptomatic, but depending on the evolution, it can cause micturition dysfunctions (increased micturition frequency, dysuria, urinary retention), pelvic pain, pain during ejaculation or hemospermia.

Material and method: We present a 27-year-old patient who was admitted in our clinic with acute urinary retention. Imaging investigations (ultrasound, uroCT, MRI) revealed left seminal vesicle and the left deferent duct dilatation and ipsilateral renal agenesis, which suggest the diagnosis of Zinner Syndrome and left testicular ectopy and congenital bladder diverticulum. The flow pressure study revealed in the filling phase: low bladder capacity, preserved bladder compliance and in the voiding phase: the micturition is initiated with a high value of detrusor pressure and a low value of Qmax.

Results: At the time of presentation, a bladder catheter was inserted with the gradual evacuation of urine from the bladder. We performed left orchiectomy, excision of the left seminal vesicle and left vas deferens, the excision of the diverticulum and a part of the bladder using a laparoscopic approach. The surgical intervention proceeded without intraoperative incidents, minimal blood loss, the pelvic drain was suppressed on the 3rd postoperative day and the patient presented spontaneous micturition after bladder catheter suppression. Postoperative uroflowmetry revealed: normal curve shape, voided volume = 233 ml, Qmax = 18 ml/s, no postvoid residual urine.

Conclusions: Urodynamic investigations have an important role concerning the micturition dysfunction diagnosis in Zinner Syndrome and for the evaluation of the postoperative outcomes. The advantages of laparoscopic surgical approach consist in precise maneuvers, better intraoperative visibility, low postoperative pain intensity, short period of hospitalization and quick recovery of the patient.

Keywords: Zinner Syndrome, voiding dysfunction

HOW RELIABLE IS PAD TESTING FOR EVALUATING URINARY INCONTINENCE?

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Introduction: Urinary incontinence, regardless of the mechanisms behind it, is always a very bothersome condition. Nevertheless, the amount of urine lost during each episode gives the measure of severity for incontinence, although measuring this amount is very challenging. The pad test imposed as the gold standard for this measurement, but we consider it being biased by many factors. Our study aims to evaluate the triggers making the patient change the pad and the volume of urine in the pad being changed, in order to evaluate the reliability of this test.

Material and method: We conducted a prospective study which included 30 women and 15 men with urinary incontinence, disregarding the cause leading to this condition. We provided standard XL size absorbent pads dedicated for urinary incontinence. The pads were weighted dry then submerged into saline then weighted again, measuring a capacity of 230 ml. The patients were provided with enough pads and instructed to change them the same way they used to before. The patient was instructed to weigh the pad being changed, every time, for two consecutive days, using the scale we provided and enter the value in a table. As an observation in the same table, the patient was asked if he/she changed the pad because it felt full or because of some other reason.

Results: In our series, female patients reporting feeling wet, measured urine volumes between 10 and 230 ml, while female patients reporting changing the pad for other reasons measured volumes ranging from 0 to 230 ml. The leaked volume per one patient ranged 11 to 230 ml in the female group. Male patients measured 50 to 230 ml when changing the pad because it felt full. In the "other reason" subgroup, the leaked volume ranged 0 to 230 ml. The average volume per pad ranged 18 to 230 ml.

Conclusion: The pad test gives some orientation on the severity of the urinary leakage, but it is far from being an accurate tool for quantifying the volumes lost by the patient. This test might be useful when evaluating one patient over a period of time, but it is unreliable when used to compare larger series of patients.

Keywords: urinary incontinence, pad test, urinary leakage

RELATIONSHIP BETWEEN SERUM CREATININE LEVEL, CERVICAL CANCER STAGE AND OVERALL SURVIVAL RATE IN PATIENTS TREATED FOR CERVIX CARCINOMA.

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Introduction and objective: Cervical carcinoma is the second most frequent cancer in women. The treatment of advanced cervical cancer leads to increased ureteral injury rate and to higher mortality. The aim of the paper is to present the severity and morbidity of increased serum creatinine levels after the treatment of different stages of cervical cancer.

Material and method: This is a retrospective study that includes 166 female patients treated for cervical cancer and presented at the Urology Clinic of Târgu-Mureş with increased serum creatinine level between January 2016 and December 2019. The survival rate was examined after a period of three years, until April 2022.

Results: Comparing the serum creatinine level after the treatment of different cervical cancer stages, we found that the patients with cervix cancer in stage I-II had a mean serum creatinine level of 1.68 mg/dl (IQR:0.84-2.36 mg/dl), stage III was associated with mean serum creatinine of 3.36 mg/dl (IQR:1.13-7.89 mg/dl) and stage IV cervix carcinoma with a 4.43mg/dl (IQR: 0.78-15.32) mean serum creatinine level. It was a statistically significant positive relationship between an advanced cervical cancer's stage treatment (surgery, radiotherapy, chemotherapy or a combination of these) and a higher serum creatinine level, p=0.013. Also, an increased mortality rate was associated with increased serum creatinine level. Those who survived after a period of three years, had at the presentation a mean serum creatinine level of 1.83 mg/dl, while those who deceased in this period had a mean creatinine level of 4.74 mg/dl. Also, it was a statistically significant relationship between increased serum creatinine level and a higher mortality rate, p=0.0196.

Conclusion: Prevention and an early diagnosis of cervical cancer is very important because the complex treatment of advanced cervical cancer is associated with an increased prevalence of obstructive kidney disease followed by increased creatinine level and a higher mortality rate.

Keywords: cervical cancer, creatinine, mortality rate.

THE CORRELATION BETWEEN DILATATION OF THE UPPER URINARY TRACT AND SURVIVAL RATE IN FEMALE PATIENTS TREATED FOR CERVICAL CANCER

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Introduction and objectives: In women, the cervical carcinoma is the second most common cancer after breast cancer. Following the cervix cancer treatment (surgery, radiotherapy, chemotherapy, or combination of these) the ureteral injury could occur followed by upper urinary tract dilatation and increased mortality. The objectives of this study is to asses the impact of upper urinary tract and the incidence among women treated for cervical cancer.

Methods: We retrospectively analysed data of 140 female patients treated for cervical cancer who presented at the Urology Clinic of Târgu Mureş with ureterohydronephrosis between 2015 January and 2019 December. The analysis of overall survival rate was performed in April 2022.

Results: A total of 140 (100%) patients were hospitalized with ureterohydronephrosis followed by cervical carcinoma treatment. The most frequent treatment options were the surgery combined with radiotherapy, followed by the combination of surgery, radio- and chemotherapy, just surgery and the rarest choosed option was the radiotherapy alone. Early tumour's stage requires surgery or radiotherapy, while the more advanced stage gets initially chemo- and radiotherapy. The upper urinary tract dilatation was bilateral in 76 (54.28%) cases and unilateral in 45.71% (n=64) of the patients. The mean duration between cancer treatment, depending on the tumor's stage, and appearance of bilateral hydronephrosis was 37.28 months (1-292 months) and this period was 81.94 months (1-360 months) in unilateral hydronephrosis. We find a significant relationship between bilateral hydronephrosis and a sooner presentation to urologist, $p<0.05$. Analysing the overall survival rate, we found that 29.8% of the patients had unilateral stasis and survived, 18.26% had unilateral ureterohydronephrosis and deceased, while 15.8% had bilateral upper urinary tract dilatation and survived, and 36.53% had bilateral ureterohydronephrosis and deceased. In this case we also find a statistically significant relationship between bilateral upper urinary tract dilatation and increased overall mortality rate, p=0.0195. Even if, the patients were considered oncologically cured, they persisted in being urological patients treated for upper urinary tract complications.

Conclusions: The most frequent upper urinary tract complication of the cervical cancer itself and/or different types of treatment (surgery, radiotherapy, chemotherapy or a combination of these) is the upper urinary tract dilatation. The bilateral ureterohydronephrosis leads sooner to urological presentation and it is associated with higher mortality rate.

Keywords: dilatation of the upper urinary tract, cervical cancer, mortality rate

THE QUALITY OF LIFE OF PATIENTS WITH UROLOGICAL COMPLICATIONS FOLLOWING CERVICAL CANCER: THE BEGINNINGS OF A LITERATURE REVIEW

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Introduction: The number of patients who survive the fourth most common cancer in women has tripled over the past decade. Although great interest has been shown into the development of new treatment options, the importance of the quality of life of these patients was underrated. The scope of this literature review is to assess the current knowledge regarding this subject and to identify the needed direction of further research.

Materials and methods: We used the PubMed database and PubMed Central to identify and extract articles published on this subject within the last decade. Furthermore, articles were reviewed in a chronological manner but were secondly analyzed based on a thematic organization.

Results: Out of the approximately 90 articles analyzed concerning urological complications following cervical cancer, 20 included research on the quality of life: 5 papers were categorized as doubtful and so excluded from the analyses; 11 articles were published in the last 5 years and represented the foundation of this paper. There was no study conducted on Romanian grounds identified. Scales such as Quality of Life Questionnaire (EROTC-QLQ-C30, EORTC-QLQ-CX24) and Self-rating Anxiety Scale (SAS) were found as common research tools in several articles, as well as Incontinence Impact Questionnaire-7 (IIQ-7) and Urogenital Distress Inventory (UDI). Factors like urinary incontinence or retention, hyperactive bladder syndrome, edemas, fatigability, insomnia caused by illness-related stress, social functioning, financial difficulties were identified as incriminators of impaired quality of life. One study reported statistically significant improvement of quality of life and short- and long-term negative emotions after including psychological nursing in the routine care of these patients.

Conclusions: The interest in the quality of life is rising. However, the number of recent studies concerning this subject is very low, thus the need for further research. Up to date, there is no Romanian research on this matter.

Keywords: cervical cancer; urological complications; quality of life.

MINIMALLY INVASIVE APPROACH FOR BILATERAL URETERAL LESION AFTER TOTAL HYSTERECTOMY

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Introduction and objectives: Unfortunately oftentimes lesions of the ureters appear as a complication of gynecological surgery. Complete or partial lesion of the ureters need immediate surgical treatment. The treatment for ureteral fistulas depend on their dimension and location. For distal ureteral lesions most of the times a ureteroneocystostomy is performed. For a successful anastomosis good vascularization is needed and the lack of tension between the bladder and ureter is required . This is why a correct dissection of the ureters for the preservation of vessels, and a proper mobilization of the bladder are of cardinal importance.

Matherials and methods: We present the case of a 44 years old patient who underwent a laparoscopic total hysterectomy for a hemorrhagic uterine fibroid. Postoperatively the patient became anuric. The CT-urogram showed the presence of a bilateral ureteral fistula. Initially a retrograde pielography was performed and bilateral ureteral leakage of the contrast was seen. Laparoscopic ureteral bladder reimplantation was performed because endoscopic stent placement was unsuccessful. The laparoscopic approach was transperitoneal with 5 trocars. The ureters were identified at the intersection with the iliac vessels and then dissected caudally until the breach was recognised. The ureter was than dissected and cut above the lesion and the integrity of the vascularization was checked by ICG (indo cyanine green) administration and changing of the light spectrum. Bilateral ureteral reimplantation was performed after bladder mobilization and anastomosis consolidation made on the double J stent placed intraoperatively.

Results: Total operative time was 150 minutes. Total blood loss was 50ml. The patient had a bowel opening 2 days postoperatively and was discharged in day 4. The bladder catheter was removed two weeks after and the ureteral stents 6 weeks after the surgery. 3 months later an ultrasound was performed and there was no hydronephrosis found.

Conclusion: A minimally invasive approach was a key factor for this patient who underwent a second surgery in just a few days after the first. This permitted a more rapid recovery and less comorbidities. The intraoperative employment of ICG allowed for the vascularization of the ureters to be evaluated and the performance of an anastomosis with viable tissue between the ureter and bladder. And so, the development of of long term complications such as ureteral stenosis can be prevented and the kidney function preserved.

Keywords: ureteral reimplantation, minimally invasive treatment, ICG, iatrogenic lesions of the ureters

RISK FACTORS IN RECURRENCE AFTER SURGERY FOR UROGENITAL PROLAPSE

Adrian Gheorghe Bumbu, Mihail-Claudius Berechet, Daniela Jovrea, Gheorghe Bumbu, Isam Al Jashi[2]

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This study focused on identifying risk factors in recurrence after surgery for pelvic organ prolapse.

All consecutive women who underwent POP surgery in Oradea Urology Clinic (years 2011–2021) were included. Assessments were performed preoperatively and at 1-year follow-up, including pelvic organ prolapse quantification score and a standardized urogynecological questionnaire (Urogenital Distress Inventory, UDI).

The risk factors identified were lack of prevention after hysterectomy, enlarged uterus, incomplete clinic diagnose (including stress urinary incontinence left undiagnosed), unsuited preoperative patient assessment and arrangements, unsuitable or incomplete surgery indication, the need for correct identification of structural defects and anticipation of redistribution of pelvic pressures.

Keywords: urogenital prolapse, hysterectomy, stress urinary incontinence

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URODYNAMIC CHANGES IN PELVIC ORGAN PROLAPSE

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Introduction and objectives: Pelvic organ prolapse (POP) is a major health problem of the elderly women. POP is associated with lower urinary tract dysfunction, such as urinary incontinence (UI), bladder outlet obstruction (BOO), and detrusor dysfunction. The urological changes associated with POP and the beneficial effects of surgery on these changes are controversial. The aim of this study was to evaluate the urodynamic changes in these patients, in order to indicate the proper management.

Materials and methods: We performed a retrospective observational study from the database at the Urology Clinic of Târgu Mureș County Hospital between January 2018 and July 2022. A total of 64 cases of POP were subjected to urodynamics studies and the data was analyzed. The evaluation of these patients included medical history, physical exam, pelvic exam, urinalysis, urodynamic testing, and 3-day voiding diary.

Results: In 64 patients, ranging from 22 to 77 years of age (mean 60.27) body mass index was 28 (range 20-44). Age did not correlate with degree of POP, but with low detrusor contractility did (mean pdet 23.13cmH_2O; r=0.93, p= 0.014). Patients with reduced bladder contractility index (mean BCI 84.57) had a significantly lower Qmax (mean 12.28ml/sec) and pdet (mean 23.13cmH_2O)(r=0.885, p<0.001; r=0.382, p=0.003). The mean post-void residual volume (PVR) was 62.37ml. The PVR increased to degree of BOOIf (bladder outlet obstruction index) (p=0.011). Fifty females were diagnosed with UI after the urodynamic study, the presence of urge urinary incontinence was significantly high in patients with diabetes (p=0.029).

Conclusions: POP leads to impaired normal bladder function. The accurate clinical and urodynamics investigations of patients with POP is essential preoperatively to prevent urinary retention and de novo UI.

Keywords: pelvic organ prolapse, urodynamic studies, detrusor dysfunction

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LAPAROSCOPIC RADICAL PROSTATECTOMY – VEIL OF APHRODITE TECHNIQUE (CASE REPORT)

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Introduction: We present the case of a 63-year-old patient who was admitted to the Urology Clinic Tg. Mureș with the diagnosis of prostate cancer cT2bN0M0.

Material and method: Pelvic MRI examination reveals a 30 cubic cm prostate, regular outline, 2 nodules with a maximum diameter of 7 and 9 mm localized in the transitional and peripheral area of the right lobe; suspect nodules were not evident; normal appearance of the seminal vesicles. Prostate biopsy reveals a prostate adenocarcinoma of the median right lobe, Gleason score 3+4=7, grade group 2, PSA= 8.02 ng/ml, IPSS =23, flattened flow curve, Qmax=10 ml/s, PVR = 80 ml,

Results: We practiced radical prostatectomy using the Veil of Aphrodite technique with the preservation of bilateral neuro-vascular bundle and the pubo-prostatic ligaments and bilateral ilio-obturator lymphodissection through a 3D laparoscopic approach. The evolution of the patient was favorable, without intra- or postoperative complications, intraoperative blood loss of about 50 ml and the pelvic drainage was suppressed

on the 3rd postoperative day. The patient was discharged on the 5th postoperative day. The bladder catheter was removed 7 days after the surgery, after performing the filling cystography, which did not highlight extravasation of the contrast substance. The patient was continent immediately after the suppression of the bladder catheter with minimal loss of urine on effort, which was remitted after 1 month.

Conclusions: The preservation of the neuro-vascular bundles and the pubo-prostatic ligaments determine a quick recovery of the urinary continence and the preservation of the erection. The 3D laparoscopic approach allows visualization, fine dissection and preservation of these structures with tumor excision within oncological safety limits and functional results within normal limits obtained quickly postoperatively. The use of this technique depends on the volume of the prostate, the extension of the tumor, and last but not least, it requires technical knowledge and experience on the part of the operating team.

Keywords: prostate cancer, laparoscopic radical prostatectomy, Veil of Aphrodite

LAPAROSCOPIC RADICAL PROSTATECTOMY - POSTOPERATIVE FUNCTIONAL RESULTS

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Introduction and objective: Radical prostatectomy is the standard surgical treatment in localized prostate cancer. Urinary incontinence (UI) is a major morbidity related to prostate cancer (PCa) treatment. It has been reported that post-prostatectomy urinary incontinence may be influenced by pelvic floor muscle tone and the length of the intraoperatively prepared urethra. However, predicting the degree of urinary incontinence taking these factors into account is unknown. The aim of this study is to evaluate the recovery of urinary continence in patients who underwent postoperative pelvic electrostimulation.

Material and method: We studied a group of 60 patients who underwent laparoscopic radical prostatectomy between 2017 and 2022 at the Urology Clinic from Tg. Mures. Inclusion criteria: patients without postoperative urinary fistula, without preservation of neurovascular bundles, bladder catheter was suppressed 7-14 days after the surgery, urinary incontinence after the bladder catheter removal. The patients were divided into 2 groups: Group I: 30 patients who underwent postoperative pelvic electrostimulation and Group II: 30 patients who did not receive pelvic electrostimulation. Patient evaluation was performed after suppression of the bladder catheter, at 1 month, 3 months, and 6 months by completing the 3-day voiding journal and the incontinence questionnaire. In the patients included in group I, 10-12 sessions of pelvic electrostimulation were performed, with energy of 35 Hz and intensity of 80-100%.

Results: The mean age of the patients was 67.12 years +/- 4.35 SD. 33 patients were included in the intermediate risk group, 12 patients in the high risk group and 15 patients in the low risk group. The mean PSA value was 12.61 ng/ml +/- 7.34 SD. Mean Qmax was 10.78 ml/s +/- 9.23 SD. The drains were suppressed 3-4 days after the surgery, and the bladder catheter after 7-14 days. The average duration of post-operative hospitalization was 5.57 days +/- 2.63 DS. No conversion was required for either case during the surgery. The evaluation of group I highlighted the remission of UI in 16 patients after 1 month, in 24 patients after 3 months and in 27 patients at the evaluation after 6 months. The evaluation of group II highlighted the remission of UI in 9 patients after 1 month, 16 patients after 3 months and 20 patients after 6 months. A certain degree of UI persisted during effort or sudden movements in 3 patients from group I and in 10 patients from group II.

Conclusions: Radical prostatectomy is the recommended surgical procedure in the treatment of prostate cancer. Urinary incontinence, however, is a postoperative complication with a major psychological impact on the patient. The fine preparation of the tissues, the avoidance of extensive dissection through the laparoscopic approach and the improvement of the pelvic floor muscles tone through pelvic electrostimulation can contribute to the improvement of the postoperative continence.

Keywords: prostate cancer, laparoscopic radical prostatectomy, urinary incontinence.

3D LAPAROSCOPIC ANTERIOR PELVECTOMY AND INTRACORPOREAL ILEAL CONDUIT URINARY DIVERSION FOR MUSCLE INVASIVE BLADDER CANCER

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Introduction and objectives: Anterior pelvectomy represents the en-bloc excision of the urinary bladder, uterus and ovaries, urethra and anterior vaginal wall, performed for muscle invasive bladder cancer (MIBC). The video describes the technique of 3D laparoscopic anterior pelvectomy and intracorporeal ileal conduit urinary diversion.

Material and methods: We present the case of a 65 year old woman diagnosed with MIBC (pT2G3, cN0M0) who underwent neoadjuvant chemotherapy. The procedure scheduled for the patient was 3D Laparoscopic anterior pelvectomy, extended lymphadenectomy and intra-

corporeal ileal conduit urinary diversion. We used the transperitoneal approach using 5 trocars. The procedure begins with the identification and dissection of the ureters followed by the hysterectomy and anexectomy step. The posterior plane dissection starts with the incision of the pouch of Douglas and the identification and incision of the vagina. The incision of the urachus allows the dissection of the space of Retzius. Next hem-o-lock clips are placed on the lateral vesical pedicles and incised. A hem-o-lock is placed on the urethra to avoid spillage and is sectioned. Extended lymphadenectomy is performed. The specimens are placed in a endo-bag and extracted through the vagina. The suture of the vagina is performed. Intracorporeal ileal conduit is then performed.

Results: Operating time was 330 minutes: anterior pelvectomy 100 minutes, lymphadenectomy 70 minutes, ileal conduit 160 minutes. Blood loss was insignificant. The patient was discharged on po day 8 and the stents were removed after 6 weeks. Final pathology was high grade urothelial carcinoma with squamous differentiation pT3bN2 /13 MxL1V0Pn0R0. The patient is now on adjuvant therapy with checkpoint inhibitors

Conclusion: 3D laparoscopic anterior pelvectomy is a safe and feasible procedure with good oncological outcomes for MIBC patients. The exteriorization of the specimen trough the vagina and performing the urinary diversion intracorporeal assures a faster recovery, lower pain and a excellent cosmetic outcome.

Keywords: pelvectomy, bladder tumor, ileal conduit

THE ROLE OF THE LAPAROSCOPIC APPROACH IN THE ROBOTIC ERA IN URO-ONCOLOGY

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Minimally invasive surgery has been an important progress in the surgical field. The laparoscopic approach has become the gold standard for most of the urological procedures and causes minimal morbidity, minimal pain, shorter convalescence, early return to work, and better cosmetic results. The limits of traditional laparoscopy have been compensated with the robotic approach. One considerable disadvantage is the cost. By performing laparoscopy in high volume centers and having access to technical improvements such as 4K Ultra HD video technology and 3D-HD-videosystems, complex cases can be treated by using this approach. We perform laparoscopic approach for radical prostatectomy, for complex renal tumors excised with zero ischemia by off-clamping or selective clamping by administering ICG and intraoperative near-infrared fluorescence, for advanced renal tumors with caval tumor thrombus, for radical cystectomy, for nerve-sparing retroperitoneal lymph node dissection and for radical nephroureterectomy with bladder cuff excision. The surgical approach should be decided by the risks and benefits of each patient.

Keywords: laparoscopy, robotic surgery, technology

ROBOTIC APPROACH IN URO-ONCOLOGY

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Regarding advances in surgical technology, urologists were the leaders and showed enthusiasm in adopting new devices and techniques such as endoscopic surgery, laser utilization, and laparoscopic approach in the early 1990s. In the last decade, the robotic approach has been utilized in more and more high-volume centers. The advantages of robotic surgery are well known and they can be used in performing complex cases with a minimally invasive approach. We use the robotic approach for the promising results for continence in radical prostatectomy, for complex renal tumors excised with zero ischemia by off-clamping or selective clamping by using intraoperative near-infrared fluorescence with indocyanine green for the localization of renal tumors, for advanced renal tumors with caval tumor thrombus, for radical cystectomy and intracorporeal neobladder, for nerve-sparing retroperitoneal lymph node dissection and for radical nephroureterectomy with bladder cuff excision. Future possibilities, including nanotechnology, are awaited.

Keywords: robotic surgery, radical prostatectomy, radical cystectomy

IMPLEMENTING HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP) IN MEDICOVER CLUJ HOSPITAL: TRAINING AND PROCTORING

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Introduction: Lower urinary tract symptoms caused by benign prostatic hyperplasia are the most common complaints of aging men in urology. Depending on the prostate volume, transurethral resection of the prostate and open prostatectomy were considered the gold standards for many years. Holmium laser enucleation of the prostate (HoLEP) has replaced the two surgical techniques. We present implementing the HoLEP technique in our hospital.

Materials and methods: Since June 2022, 15 patients underwent HoLEP procedure. Preoperative data was collected. The following data will be collected, compared with TUR-P, and long-term results will be analysed. The surgeon initially, participated at a fellowship in a reference center. Later on, we had a proctoring session of 6 cases that underwent the HoLEP procedure. The auxiliary personnel were already trained in litothripsy, so there was no need for extra training.

Results: Our initial results confirm HoLEP to be a safe and efficient procedure for the treatment of BPH for all prostate sizes. Following HoLEP, the duration of catheterization was 7 days and the length of hospital stay was 2.26 days. Blood transfusion was needed in 2 patients (13.33%).

Conclusions: These steps are followed in high volume centers for implementing a new surgical technique, and in this way, we wanted to implement the HoLEP procedure in our hospital. With adequate training and the requisite equipment, HoLEP can be performed with favorable results.

Keywords: Holmium laser, enucleation, prostate

THE SACRAL NEUROMODULATION IN THE TREATMENT OF LOWER URINARY TRACT DYSFUNCTIONS

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Sacral neuromodulation (SNM) is a standard operative solution for hyperactivity, non-obstructive urinary retention, and it slowly starts to find it's place in the management of pain syndromes and sexual dysfunctions. Although it has been approved for OAB since 1990 and for retention since '99, the amount of black spots and uncertainties is still disturbingly high. Let's talk about what we don't know, and figure out how we can find a better use for SNM

CALYCEAL CONFORMATION COMPLICATING PERCUTANEOUS NEPHROLITHOTOMY IN STAGHORN CALCULUS SURGERY: CASE REPORT

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Introduction: Percutaneous nephrolithotomy is the actual gold standard in treating renal lithiasis larger than 2 cm. Although highly feasible in common cases, the presence of staghorn calculi can complicate surgery if not making it impossible to perform.

Case report: We aim to present the case of a 35-year-old female patient with a history of bilateral staghorn calculi, diagnosed two years previously. The patient complained of fever and left-sided flank pain at the emergency room, associated with pyuria. The initial CT scan revealed an incomplete staghorn calculus on the left side with secondary hydroneprosis and a complete staghorn calculus on the right side with discrete hydrocalicosis. Emergency drainage of the left kidney was performed with a JJ stent (inefficient) and a nephrostomy (drainage of pus and subsequent improvement of symptoms with treatment). Delayed surgery was performed after 2 months with two attempts of PCNL (both with good access to the inferior and middle calyx but no access to the renal pelvis because of stenosis of the calyceal inlets). Since no other surgical methods were available at that date, the decision for left sided nephrectomy was taken (supported also by the low output of the kidney). Postoperative complications occurred (infection leading to necessity for lumbar drainage) but were successfully resolved. Further outcome of the patient to present day is uneventful.

Conclusion: Stone conformation as well as ensuring proper percutaneous access remain key points for the success of PCNL surgery. Staghorn calculus is to this day a surgical challenge, regardless of the technique used by the treating urologist.

Keywords: percutaneous nephrolithotomy, staghorn calculus, renal lithiasis

ARTIFICIAL URINARY SPHINCTER: AN UPDATE

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Introduction: The Artificial Urinary Sphincter (AUS) is considered as a major breakthrough in the treatment of stress urinary incontinence (SUI), especially in men having undergone prostate surgery for BPH or prostate cancer.

Methods : We performed a systematic review of the literature concerning the current use, history and future perspectives for the AUS in both men and women suffering from SUI.

Results: The first successful AUS corresponds to the publication of the study results for the AS 721 by Scott et al in 1973, a device created by the successful collaboration between an urologist, a neurologist and an engineer. It consisted in an inflatable cuff (placed around the bladder neck), two reservoirs, two pumps and resistors for inflation and deflation. Because of erosion and malfunction events, several redesigns occurred; the breakthrough came in 1982, with the launch of the AMS 800 (with a single cuff placed around the urethra, a single reservoir, a control pump and inactivation mechanism) which showed very low malfunction and complication rates (less than 5%) that continued improving to this date.

Recently, concurrent devices have appeared on the market with advantages related to price and control system of the sphincter cuff (like electronic control over mechanical one). However, the clinical results of these concurrent devices are currently under assessment or were demonstrated as similar if not inferior to the AMS.

Conclusion: The AUS remains the gold standard treatment for severe postoperative SUI in men with the AMS 800 as the device of choice. The assessment of other concurrent AUS devices show promising results but research is ongoing since no long-term results are available to this date.

Keywords: artificial urinary sphincter, stress urinary incontinence, prostate surgery

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