

9 months to 11 years who underwent proximal hypospadias surgery. Fourteen patients had penoscrotal and two had scrotal hypospadias. Chordee occurred in all patients and was corrected by dorsal plication. All patients underwent standard tubularized incised plate urethroplasty, which was followed by reconstruction of new surrounding urethral tissue. A very long, longitudinal dorsal dartos flap was harvested and transposed to the ventral side by the buttonhole maneuver. The flap was sutured to the glans and the corpora cavernosa to completely cover the neourethra with well-vascularized subcutaneous tissue. Penile body was covered using remaining penile skin.

Results: Mean follow-up was 24 (6–40) months. A successful result without fistula was achieved in 14 patients. There were one fistula and one stenosis of the glandular urethra, all solved by minor revision.

Conclusions: Snodgrass technique with urethral covering with long dorsal well-vascularized dartos flap represents a good choice for fistula prevention. Redundancy of the flap and its excellent vascularization are promising for good outcome in proximal hypospadias repair.

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Real incidence of penile curvature in hypospadias

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Introduction and Objectives: Real incidence of curvature in hypospadias is not clearly defined. It is generally accepted that curvature is most common in proximal forms, while rare in distal hypospadias. Starting from 2004, we established the rule that any form of hypospadias has to be checked for curvature during its repair by either pharmacological (PGE1) or artificial erection induced by infiltrating saline solution under pressure into the corporal bodies. Our aim was to define real incidence of curvature within various forms of hypospadias, in order to signify preoperative and intraoperative diagnosis of chordee as a part of hypospadias repair.

Material and Methods: We retrospectively reviewed 454 patients who underwent hypospadias repair at our department. The patients were distributed in two groups; those who were treated between 2005–2008, and those who underwent surgery from 2001 to 2004. In the first group (256 pts.), all patients were tested for chordee after degloving as a standard part of surgical procedure. In second group (198pts.) artificial erection as a test for presence of the chordee was not done and only visible curvatures were corrected.

Results: Out of 454 cases, in 104 (22.9%) curvature was diagnosed and surgically corrected during hypospadias repair. In the first group, penile curvature was diagnosed and treated in 81 (31.6%) patients, while in second correction of curvature was done in 23 patients (11.6%). In the patients with distal forms of hypospadias, in the first group, curvature was diagnosed and corrected in 38.2%, while in the patients belonging to the second group having the same distal form of hypospadias curvature was noted and corrected in only 6.8%.

Conclusions: Our results show significantly higher incidence of curvature in hypospadias, especially in its distal forms, in group in which testing of curvature was performed. This is the reason why all forms of hypospadias should be checked for presence of curvature and corrected during surgery.

Poster Session 9: Miscellaneous

Saturday, 10 October 2009, 09:40–11:40

Room 3

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Antimicrobial susceptibility in Gram-negative nosocomial retroperitoneal infections

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Introduction and Objectives: The microbiological pattern of nosocomially acquired retroperitoneal suppurative infections has not studied so far probably due to their very rare incidence. Therefore, our aim was to study pathogens involved and their antimicrobial susceptibility.

Material and Methods: Multicenter, retrospective case-control study involved data from urological clinics in Serbia, covering period 2000–2007 year. Variety of common clinical parameters was collected but microbiological pattern was particularly studied. Urinary tract pathogens were identified and the susceptibility to 9 antimicrobials determined. Descriptive statistics and logistic regression were used for data analysis.

Results: In total sample of 93 adult subjects with renal suppurations we found 19 cases of nosocomial origin and 74 controls. The results of the final regression shown that history of malignancy and chronic renal failure significantly increased the risk of developing nosocomial retroperitoneal infection (odds ratio [OR] OR=22.3, OR=4.8, respectively). Overall, 67 bacteria isolated in 15 cases and 36 controls. There were significant differences in isolated *Pseudomonas aeruginosa* (OR=6.6), mixed pathogens (OR=6.9), number of pathogens (OR=2.1), Gram positive bacteria (OR=6.3) between both groups of cases and controls. Resistance rates for all agents and all Gram-negative organisms were higher in isolates from cases than controls, except against carbapenems. There were significant differences in bacterial susceptibility to ceftriaxone, cefotaxime and ofloxacin in cases compared to controls.

Conclusions: Antibiotics commonly used for the treatment of nosocomially acquired retroperitoneal infections are less effective. Our results represent an initial step in defining a high-risk group that merits intensive infection control efforts.

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Clinical and economic considerations of treatments of uncomplicated urinary tract infections (UTIs) in Albanian clinical practice

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Introduction and Objectives: Infections of the urinary tract pose a serious health problem, partly because of their frequent occurrence. The goal of treatment of UTIs is to eradicate the infection by selecting the most appropriate therapy, that would demonstrate high clinical and bactericidal cure rate and a low potential for resistance. The chosen therapy should be associated with a reasonable acquisition cost, a convenient dosing regime conducive to patient compliance, minimal side effects. Especially in Albanian practice, the cost of the treatment is a very important element that should be pretty considered when deciding the treatments. According to our urologists practice uncomplicated UTIs are treated mostly with fluoroquinolones or trimethoprim-sulphamethoxazole for 3 days. The purpose of our study is to identify the relationship

between those two agents selection and both clinical and economic outcomes in the treatment of uncomplicated UTIs.

Material and Methods: The study has started in January 2008 and will go on. The studied population is a total of 72 ambulatory patients with uncomplicated UTIs, from whom 12 patients had underwent in the past prostatectomy and 6 patients had UTIs following bladder catheterization. The population is randomly separated in two equal groups that were treated for three days of oral Ciprofloxacin (250 mg BID) or three days of TMP/SMX. All patients were initially evaluated (disease history, physical examination and dipstick urinalysis), treated with one of the mentioned alternative and followed-up (dipstick urinalysis after 10–14 days). The patients with recurrence of UTI within 2 weeks were requested to repeat urinary culture with antimicrobial testing and to reevaluated urinary tract. It was estimated the total treatment cost from initial evaluation to “prescription pad” to cure” including costs related to Lab testing, office visits, additional intervention (mainly in TMP/SMX-treated patients) to achieve the cure, treatments of relapses ect.

Results: Bacteriologic cure rates after four weeks were 90% for the group treated with ciprofloxacin and 75% for the group treated with TMP/SMX. Clinical cure rates after 10–14days were 95% for the group treated with ciprofloxacin and 85% for the group treated with TMP/SMX. Because of short period of treatment there were no consideration regarding side effects of both treatments. The mean total cost per patient was 30% higher for TMP/SMX-treated patients than for ciprofloxacin-treated patients.

Conclusions: Until now the study confirms that resistance phenomena is important in deciding the treatment of UTI. Ciprofloxacin is more effective and less expensive than TMP/SMX in the treatment of uncomplicated UTI.

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Two surveys of prevalence of nosocomial urinary tract infection in urology

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Introduction and Objectives: Urinary tract infections are the most common type of nosocomial (healthcare facility-acquired) infections, accounting for 40% of all infections in hospitals per year. Such infections add significantly to the economic burden expected from the underlying diseases alone. The aim was:

- to register the prevalence, the etiology and the antimicrobial susceptibility of nosocomial urinary tract infection (NUTI) pathogens isolated in urology of UHCT;
- to estimate the recommended standards to urinary catheter use;
- to improve the expertise of NUTI control.

Material and Methods: The data regarding the prevalence, etiology and antimicrobial resistance of the urinary isolates were collected on two days (26.11.07 and 01.04.09). The second survey was conducted after a two-weeks period of surgical and work pause for the disinfection of hospital clinic's premises. The Vitek 2 automated system was used to identify and to detect antibiotic susceptibility.

Results: The results of two surveys on 26.11.07 and 01.04.09 in Clinic of Urology give prevalence rates 85.71% and 13.04% respectively. There is no distinction between infection and colonization. The isolated micro-organisms on 26.11.07 were, in decreasing order: *Escherichia coli* (36.66%), *Pseudomonas aeruginosa* (20%), *Candida* (16.66%), *Enterobacter cloacae* (13.33%), *Morganella morganii* (10%), *Acinetobacter baumannii* (6.66%), *Proteus mirabilis* (3.33%), *Klebsiella oxytoca* (3.33%), *Citrobacter freundii* (3.33%), *Enterococcus faecalis* (3.33%).

The isolated micro-organisms in 01.04.09 were: *Escherichia coli* (33.33%), *Pseudomonas aeruginosa* (33.33%) and *Proteus mirabilis* (33.33%). One strain of *Pseudomonas aeruginosa* was isolated from cystoscope. Resistance to ampicillin, one of the most commonly used agents for the empirical treatment of UTIs, was as high as 90% in the case of *E. coli*. *Pseudomonas aeruginosa* isolates showed resistance rates of over 70% for quinolone and aminoglycoside antibiotics (except for amikacin), thereby posing a major problem in the management of NUTI in hospital. One of the causes of this problem could be deficient antimicrobial policies.

Conclusions: These data show the high level of antimicrobial resistance amongst the uropathogens causing nosocomial urinary tract infection. The prevalence of yeast is increasing. NUTI is related to the use of indwelling urinary catheters and other intravesical procedures. Discontinuation of catheter usage within 2 days, whenever possible, is the cornerstone to avoiding these infections. NUTI causes huge extra costs for hospitals. The levels and patterns of resistance of pathogens must be a serious cause for concern and a clear reason for stricter guidelines and regulations in antimicrobial policy. The disinfection of clinic's environment significantly contributes at avoiding the NUTIs.

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Management of the emphysematous pyelonephritis in adult patients

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Introduction and Objectives: We reviewed the clinical presentation, diagnosis and aspects of surgical or non-surgical management of patients presenting with emphysematous pyelonephritis.

Material and Methods: The clinical datas of 24 emphysematous pyelonephritis patients diagnosed between June 2000–April 2009 in our clinics were prospective reviewed. Also, the patients were divided into 3 groups according to their clinical status and severity of renal affect at computed tomography and managed with different treatment modalities in each.

Results: The mean age of the patients was 61.8 years (range, 40–81). Diabetes mellitus was detected in 21 (87.5%) of 24 patients. Generally, flank or abdominal (%91.6), nausea-vomitting (%83.3) and high fever were the main symptoms of the patients when they first referred to the hospital. Ketoacidosis was detected in 5 (%20.8) of the patients in application time. Urinary calculi was detected in 9 of the patients while partial or total urinary obstruction in 10 of them. *Escherichia coli* was the predominantly pathogen identified in pus, blood, and urine culture. Six (%25) patients in mildly effected group 1 were treated only by antibiotics, while 13 (54.2%) patients in moderately effected group 2 were treated with antibiotics and percutaneous drainage. Five (20.8%) patients in severely effected group 3 were treated with nephrectomy. Two of these patients died after nephrectomy, while the other patients were successfully treated.

Conclusions: Emphysematous pyelonephritis might be kept in mind in the differential diagnosis of the patients suffering from abdominal pain, nausea-vomiting with associated urological anomalies and diabetes mellitus with unregulated blood glucose. The patients with emphysematous pyelonephritis should be managed according to the severity of renal affect.