

urine, mucus production, urinary stasis, noncompliance with irrigation and catheterization regimens [4]. Osther et al. [5] investigated urine in pt with ileal-urethral Kock reservoirs, they have lower urinary excretion of citrate and higher ph, calcium oxalate, calcium phosphate, brushite and magnesium ammonium phosphate than in normal men.

Pts with UD after removing of terminal ileum and ileocaecal valve can have problems as: malabsorption of bile acids and fat, secretory-osmotic diarrhea, acceleration of bowel transit, hypovitaminosis, formation of gallstones and urinary tract stones.

Case: The 58 years old female with Coffey-bladder because of urethral atresia, was operated at 5 years old. She was hospitalized several times in the last 7 years in very bad condition due to metabolic acidosis and low bicarbonate (8 mmol/l). Pt is in prophylaxis treatment now, feels good, when she remember medication.

Conclusions: Conclusions: The problems can be minimized by pts better selection, life-long surveillance and early operation.

Reference(s)

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Laparoscopic nephroureterectomy combined with transurethral laser excision of a rosette in urinary bladder as a modern treatment method of upper urinary tract carcinomas (Preliminary report)

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Introduction and Objectives: The aim of the study was to introduce a new treatment method of upper urinary tract carcinomas (based on the Mc Donald's concept from 1952) using holmium laser for excision of a rosette in the bladder combined with laparoscopic nephrectomy and to evaluate the treatment effectiveness in the group of 9 patients.

Material and Methods: From January to June 2009, 9 patients with UUTT had nephroureterectomy by the combined method consisting of endoscopic excision by holmium laser of a rosette in the bladder and subsequent laparoscopic removal of a kidney and ureter without urinary bladder suturing. The patients were qualified for surgery on the basis of urography, abdominal cavity CT, ascending pyelography and ureterorenoscopy. Seven men and two women at the age from 62 to 80 years were operated in general anesthesia. The mean age was 70 years. All patients had intraparietal ureter part removed with Ho YAG laser. Energy dose was 10J and frequency 5Hz. All patients after endoscopy had a 24Ch catheter inserted into urinary bladder. 7 patients had laparoscopic nephroureterectomy, 2 patients because of cardiologic diseases were not qualified for laparoscopic procedure and they had nephroureterectomy by lumbar access. 7 patients were operated due to renal pelvis tumour, and 2 patients due to ureter tumour. Ureter tumours were located on the right side, 4 renal pelvis tumours were localized on the left side, and 3 on the right side. Control examinations in all the patients consisted of cystography on the 10th day after catheter removal, cystoscopy 3 months after the surgery, abdominal cavity USG 3 months after the surgery and abdominal cavity CT after 12 months. Taking samples of the bladder in the site of the scar of rosette laser removal was planned in all the patients.

Results: The mean time of endoscopic and laparoscopic procedure was 110 minutes; endoscopy 20 min and laparoscopy

90 min. All patients had urine derivation by 24Ch catheter and the urinary bladder was not sutured. Cystography made after catheter removal did not show any urine infiltrations. The patients average stay in hospital was 6 days. Three control cystoscopies did not detect macroscopic tumours in urinary bladder

Conclusions: Endoscopy laser method of treatment of upper urinary tract tumours is a simple, patient friendly method because of decreased traumatic effect, with reduced period of reconvalescence (operation and hospitalization) and providing negative oncological effects to the same extend as the classic method

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Macroscopic haematuria – a leading urological problem in patients on anticoagulant therapy. Is the common diagnostic standard still advisable?

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Introduction and Objectives: The use of anticoagulant drugs (AcD) is a popular and beneficial therapy for patients with numerous diseases. However, serious complications may occur, i.e. bleeding in the form of haematuria (hmt). Hmt, as a symptom of serious urinary tracts diseases, should be an urgent diagnostic matter for a clinician. Iatrogenic hmt may be the reason for urological consultation and hospitalization, during which expensive diagnostic procedures are performed. The aim was to assess the phenomenon of iatrogenic hmt in a current clinical practice and analyze its origins in patients receiving AcD. The economic aspects of diagnosing hmt were of special interest.

Material and Methods: Retrospective analysis of clinical documentation of 238 patients aged 18-99 years (mean 57 years) was performed. All patients were consulted for hmt in 2007-09 by 5 consultants-urologist in the following departments: nephrology (43), cardiology (27), general (23) and vascular surgery (11), cardiosurgery (40), hematology (34), gynecology (11) and internal diseases (49). In the group of 238 patients with hmt, there were 155 (65%) men, who received AcD – group A: oral anticoagulants (36%), non- or fractionized heparins (27%) and antiplatelet drugs: acetylsalicylic acid (21%), clopidogrel (11%), ticlopidine (5%). Another 83 patients, who presented with hmt – group B, did not receive any AcD. Hmt was found mainly in patients >65 years (67%), with concomitant diseases (71%): HT, CHD, arrhythmia, end-stage renal disease. The majority of patients had the full diagnostic panel performed (n=216, 91%) including: USG of urinary tracts, urography or contrast-CT and cystoscopy. The diagnostic results were analyzed with the special attention to the negative ones, in which no pathologies in urinary tracts were found (n=193, 81%).

Results: Pathologies of urinary tract were found in 45 (19%) patients: neoplasms – bladder cancer (8), prostate cancer (6), renal cancer (4), urothelial cancer of upper urinary tract (3); inflammatory conditions (5); benign prostate hyperplasia (12); urolithiasis (7). The number of pathologies detected in the group A compared with group B was 8% and 16%, respectively (p=0.2). Estimated cost of diagnostic procedures for hmt per patient was 333 EUR, assuming average time of diagnostics as a 3-day hospitalization. The cost-effectiveness analysis revealed that the cost of a single neoplasm detection reaches the unacceptable value of 3777 EUR.

Conclusions: In our study, the significant correlation between the presence of hmt and anticoagulant therapy was observed. Urological origins of hmt are more often present in patients not receiving AcD. Standard diagnostic procedure, as a expensive

and invasive action, should be engaged only after critical analysis of potential influence of AcD on the presence of hmt. Further studies on this topic would be beneficial for clinicians and health care providers.

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How accurate we really are in predicting final stage of non-invasive TCC of the bladder when performing cystoscopy?

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Introduction and Objectives: Approximately 75–85% of patients with bladder cancer present with disease confined to the mucosa (stage Ta-Cis) or submucosa (stage T1). The distinction, whether the bladder carcinoma is non-muscle invasive (NMIBC) or muscle invasive (MIBC) has a cardinal influence on further treatment. The pathological examination of post-TURBT specimen plays the key role in this context. The management of NMIBC became more complex with regard to initial investigation, treatment strategy, intravesical therapy and follow-up. The ability to estimate the tumor stage and grade accurately would be beneficial for patients. Therefore, there is a need to define, if cystoscopy alone can reliably identify tumor stage and grade. The aim was to assess the accuracy of visual staging (by stage and grade) of bladder cancer during cystoscopy. Thereafter, we evaluated the differences in predictability of more and less experienced urologists and analyzed the most common errors in tumor stage and grade identification.

Material and Methods: The records of 189 NMIBC-TURBT procedures performed in 164 patients (aged 29–99, av. 68) from 2007 to 2009 were collected. In all cases stage (T) and grade (G) were assessed by the treating surgeon and documented in operation protocol. Cystoscopic appearance of the tumor was digitally recorded. All data were blindly reevaluated by another two urologists. All clinical results were compared with final pathological examination. Intraobserver and interobserver variations were also noticed.

Results: Urologist predicted correctly both T and G in 60 out of 189 tumors – accuracy of only 31.7%. The accuracy in different pT and G stages were as follows: TaG1 – 25%, TaG2 – 0%, T1G1 – 6%, T1G2 – 66%. The predictability of T was higher than G (53% vs.47%). The overdiagnosis (between TCC and T0) was noticed in 10 out of 11 patients. Overstaging and understaging between Ta and T1 were noticed in 63% and 24% of cases, respectively. The predictability differed between more and less experienced urologists and the accuracy was as follows: 50% and 27%, respectively.

Conclusions: Our study revealed the lack of appropriate knowledge in the intraoperative assessment of tumor stage. Nowadays, the ability of a urologist to predict T and G depends on the clinical experience level. Therefore, a professional training process and teaching programme are necessary.

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The evaluation of the angiotensin-converting enzyme gene polymorphism in Ta,T1 and invasive bladder cancer

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Introduction and Objectives: The objectives of this study were to investigate the ACE (Angiotensin-Converting Enzyme Gene) genotype and alleles in patients with Ta,T1 and invasive bladder cancer and to evaluate the effect of ACE gene polymorphism on staging (T stage) of bladder cancer.

Material and Methods: ACE genotypes and alleles were determined in 113 patients with histologically confirmed superficially (Ta,T1) and invasive bladder cancer (mean age: 65±11.3 years) and this findings with number of tumor, sex, risk of profession, and smoking history were analysed.

Results: ACE genotypes are distributed in patients with Ta,T1 and invasive tumors as follows; ID is present in 14 (46.7%), DD in 9 (30%), II in 7 (23.3%) patients with Ta tumors, and ID in 19 (42.2%), DD in 16 (35.6%), II in 10 (22.2%) patients with T1 tumors and ID in 15 (39.5%), DD in 15 (39.5%), II in 8 (21.1%) patients with invasive tumors ($p > 0.05$). I allele was found in 28 (46.7%), 39 (43.3%), 31 (40.8%) in Ta,T1 and invasive tumor respectively ($p > 0.05$). D allele was found in 32 (53.3%), 51 (56.7%), 45 (59.2%) in Ta,T1 and invasive tumor respectively ($p > 0.05$). Smoking history, sex, risk of profession, and number of tumor were similar in patients with Ta,T1 and invasive tumor. There were no significant correlation between ACE genotypes and number and size of tumor, sex.

Conclusions: This present study revealed that no significant association between ACE gene polymorphism and staging (T stage) of bladder cancer.

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Optical coherent tomography for surgery and urology using: A systematic review

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Introduction and Objectives: The Optical Coherent Tomography (abbreviated OCT) became a standard diagnostic modality for retinal pathologies nowadays. However, the OCT is exploring for an experimental investigation in surgical branches, especially in urology and basing of this, it is need to clarify any OCT potentials of use. Aim of the study was presenting OCT potentials for imaging in surgery and urology according to literature recourses.

Material and Methods: Medial and Scientific bases were searched using “Biopsy in vivo, OCT, Surgery, Urology” as key words. We used MedLine with PubMed tool. 123 items were retrieved. For analysis we used 21 manuscripts (1 report, 7 abstracts, 12 articles and 1 book).

Results: The principle of OCT consists in lighting by optical radiation of anatomical object under consideration with subsequent light reflection level identifying. It is estimated the spatial resolution of the OCT and the penetration depth as 1–15 µm and up to 4 mm appropriately. The OCT as clinical imaging tool has the sensitivity from 60% to 100%, the specificity from 78% to 100%, the positive prognostic validity from 23% to 98% and the negative prognostic validity from 87% to 100%. The