

OCT was utilized in surgery (colonoscopy, colposcopy etc.) and in urology (cystoscopy).

Conclusions: OCT could define anatomical structure at the histological layers (epithelium, submucosa and muscle), also intra-operationally it detected topographic features notably neurovascular bundle during prostate visualization. The future works should be for OCT studying with standardization of findings in surgery and urology.

N41

Expression levels of P53 and CDKN2a/ARF messenger RNA detected by Real-Time PCR in tumor tissue in bladder cancer-clinicopathological applications

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Introduction and Objectives: Cancer of the urinary bladder is a common malignant disease in the western countries. The majority of patients presents with superficial tumors with a high recurrence frequency, a minor fraction of these patients experience disease progression to muscle invasive stage. The present study aimed to assess whether patients with bladder urothelial tumors can be more objectively stratified into low- or high-risk groups for recurrence or progression.

Material and Methods: 43 lesions were determined to be superficial papillary tumors (pTa), whereas 37 tumors invaded the lamina propria (pT1). Tumor grade was noted low (G1) in 46 cases and high (G2-3) in 34 cases. Reverse transcriptase Real Time PCR was performed in triplicate using iCycler iQ5 System (Bio-Rad). The rate of accumulation of amplified DNA was measured by continuous monitoring of SBER Green fluorescence for P53 and GAPDH (reference gene), and by monitoring the level of fluorescence of Taqman probe for CDKN2a/ARF. Melt-curve analysis was performed immediately following amplifications. Tumor samples were evaluated for P53 and CDKN2a/ARF mutations using SSCP and sequencing methods.

Results: a total 80 patients (69 males) and 4 controls were enrolled into the study. Mean patients age was 68 years. Increase in expression level for P53 were observed in 5/43 pTa (11.6%) and 20/37 >pT1 (54%), for CDKN2a/ARF in 10/43 pTa (23%) and 2/37 >pT1 (5.4%). After a median follow-up 20 months (ranged from 6 to 45) 23/69 (33%) patients developed tumor recurrence and 11 died (2-12 months after first cystoscopy). An abnormal expression level was observed in 8/15 pTa (53%) cases and in 2/8 pT1 (25%) cases. There were no correlations between expression and mutations status.

Conclusions: We present data on the clinical usefulness of expression analysis in bladder carcinoma. Our data confirm that expression analysis is a promising tool for bladder cancer diagnosis and prognosis.

N42

Interesting tumor case – lymphoma of the bladder

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Introduction and Objectives: Lymphoma of the bladder is rare tumor. In the literature is described less than 100 cases. Lymphoma representing 0.2% of the primary neoplastic lesions, and 1.8% of secondary lesions in this organ. In some cases about 40% there was a history of chronic cystitis before lymphoma. Lymphoma of the bladder is more common among female than male, the ratio is 6.5:1. The median age of this lesion is about 64 years. The most common cases found in the literature have a low-grade lymphoma including the MALT, among cases with

high-grade bladder lymphomas the most common is diffuse large cell lymphoma. There is no mortality case of primary lymphoma of the bladder in the literature. In case of non-localised lymphoma an average time of life is 9 years, and in case of secondary lesion 7 months.

Material and Methods: 33 years old woman was admitted to Urological Ward because of the tumor of the bladder, which was identified in ultrasonography. This lesion was found accidentally. The patient did not report any symptoms. She was classified to transurethral electroresection. In the cystoscopic examination there was found two lesions – one on the right wall of the bladder about 2 cm, and the second flat one about 2 cm on the left wall. The TUR-B was performed, a sample of the lesions was taken to histopathological examination.

Results: The final result of histopathological examination was: Lymphoma malignum – WHO large B cell lymphoma. The patient was sent to Haematology Ward for further examination and treatment – chemotherapy, after one year obtain complete remission of lymphoma – PET-CT examination.

Conclusions: The basis of diagnosis is histopathological examination with immunohistochemistry. In the ultrasonography this type of lesion – lymphoma is not to distinguish from a common lesion of the bladder. Chemotherapy with possible additional radiotherapy is the basic treatment of lymphoma in this case.

N43

Is Carcinoma In Situ (CIS), a contra-indication for neoadjuvant chemotherapy for Transitional Cell Carcinoma (TCC) of the bladder?

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Introduction and Objectives: Neoadjuvant chemotherapy has previously been combined with radical cystectomy to improve survival from occult metastatic disease. The purpose of this study was to evaluate disease response to neoadjuvant Gemcitabine (Gem) and Cisplatin (Cis) chemotherapy in muscle-invasive TCC compared to muscle-invasive TCC with concomitant CIS.

Material and Methods: Over 5 years (2003-08), 60 patients (46 male 14 female) at 2 centres (FRH and JCUH) were administered 3-4 intravenous doses of Gem/Cis at 28 day intervals. Mean age was 68 years (50-78). Group 1 had T2 muscle-invasive disease (n=34), and group 2 had T2+CIS (n=26). CT scans were repeated following chemotherapy. All 60 patients subsequently underwent radical cystectomy with lymph-node dissection and ileal conduit formation (55) or neobladder reconstruction (5).

Results: Pathological and radiological responses were noted prospectively (see table).

	Total number of patients	Regression of disease (%)	No Change (%)	Progression of disease (%)
Histological				
Group 1: T2	34	26 (76.4%)	5 (14.7%)	3 (8.8%)
Group 2: T2+CIS	26	7 (26.9%)	15 (57.7%)	4 (15.4%)
Radiological				
Group 1: T2	34	24 (70.6%)	7 (20.6%)	3 (8.8%)
Group 2: T2+CIS	26	6 (23.1%)	15 (57.7%)	5 (19.2%)

Conclusions: Our results clearly show that the response of muscle-invasive TCC to Gem/Cis neoadjuvant chemotherapy is reduced in the presence of concomitant cis. Response rates to T2 disease alone are good, however, in excess of 70%. The role of neoadjuvant chemotherapy is to treat micro-metastatic disease as well as the primary cancer. Our findings suggest

that the role of neoadjuvant chemotherapy in patients with concomitant cis is questionable. Further studies with greater numbers of patients and survival data are required.

N44

The value of combined transurethral resection and adjuvant hormonal therapy in treatment of bladder endometriosis

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Introduction and Objectives: Endometriosis affects 1–2% of menstruating women and up to 20% women after surgical pelvic operations. Most cases occur between 25–45 yrs. The peak incidence is around 30–40 yrs. Involvement of the urinary tract is seen in about 1% cases of this disease

Material and Methods: Since 1983 till 2008 seven female patients (age 32–46 yrs, mean age 37.6yrs) initially referred as bladder tumor underwent trans urethral resection. Histopathological examination revealed endometriosis of the urinary bladder. Clinical data are presented in the table I. The patients were followed-up with US and cystoscopy.

Case, Initials, Age (y)	Symptoms	US-Scan	Treatment	Results/follow-up
1, ZG, 32	Hematuria	Not performed	TURBT, hormonal	Asymptomatic during 276 months
2, ON, 32	Hematuria	Bladder tumor	TURBT, Partial resection of the bladder, hormonal	Asymptomatic 204 months
3, KB, 32	recurrent flank pain	Paravesical tumor compressing lower ureter	TURBT Nephrectomy hormonal	Asymptomatic 204 months
4, KM, 40	asymptomatic	Bladder tumor	TURBT, hormonal	Asymptomatic 120 months
5, SA, 40	asymptomatic	Bladder tumor	Cystectomy hormonal	Asymptomatic 84 months
6, GA, 46	dysuria	Bladder tumor	TURBT	Died 4 months later (Stroke)
7, WM, 46	dysuria	Bladder tumor	TURBT Hormonal.	Asymptomatic 6 Months later

Results: Histopathological examination revealed endometriosis of the urinary bladder. 6 out of 7 patient underwent adjuvant personally tailored hormonal treatment. Good results we achieved in all cases, after combined (surgical and hormonal) treatment in 6 cases and in 1 case after surgical treatment only. One patient died 4 months post TURT of stroke. Mean follow up was 128 months.

Conclusions: TURBT with adjuvant hormonal treatment of bladder endometriosis permits to achieve good long term results in all cases. No neoplastic transformation was observed during the follow-up.

N45

Laparoscopic partial nephroureterectomy in the treatment of hydronephrosis of the upper pole of duplex kidney with megaureter

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Introduction and Objectives: Complete duplication of the collecting system is one of the most frequent congenital defects and is detected in about 1 out of 125 (0.8%) people in the population. The ureteral orifice of upper kidney in the area of muscles structures causes clenching of the distal part of ureter and inhibits the flow from the upper poles of the kidney. Then the megaureter and hydronephrosis along with the atrophy of this section develop. The best treatment in the case of upper kidney failure is partial nephroureterectomy. In the literature one may find only few examples of laparoscopic partial nephroureterectomy, mostly concerning the pediatric urology. We are presenting heminephroureterectomy laparoscopic technique as a method giving the opportunity to make a spread intervention simultaneously in the upper and

lower part of the abdominal cavity without the need of changing trocars' location.

Material and Methods: A 25-year-old female patient was admitted to the Department of Urology because of hydronephrosis of right duplex kidney. The patient signed an informed consent to undergo laparoscopic transperitoneal upper-pole nephroureterectomy. The operation was carried out from the transperitoneal access using four trocars (2×10 mm, 2×5 mm) placed like in the laparoscopic transperitoneal nephrectomy. After moving the ascending colon it turned out that there was a megaureter directed toward the right accessory kidney. Continuing, a renal hilus dissected free. Pedicle was moved. It turned out that there were vessels running apart to the right accessory kidney. The vessels were clipped and cut off. Afterwards, using a harmonic knife the upper kidney was cut away from the lower one. In the second stage of the procedure the ureter was dissected free up to the intramural part of the urinary bladder. During the lower part of the abdominal cavity operation, laparoscopic tower location was changed without any changes in the location of trocars. Ureter was cut away in the lowest point after the bladder wall visualization.

Results: The operation was conducted without any complications, time: 215 minutes, lost of blood: 200 ml. During the first day patient remained in bed, in the second the intestinal feeding was included. In the seventh day the patient was discharged from hospital in a good general condition

Conclusions: Laparoscopic partial nephroureterectomy is a method giving a possibility of minimally invasive access to the upper and lower collecting system without the necessity of opening the abdominal cavity, reducing the hospitalization time, less painful and letting a patient come back to the normal activity much faster in the comparison with the classical method. A very important advantage of this technique is good cosmetic effect which in this situation is extremely significant in case of correction of congenital defects, especially because the operation is performed mostly in children and young people.

N46

Animal models of overactive bladder: Cyclophosphamide (CYP)-induced cystitis in rats

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Introduction and Objectives: Cyclophosphamide (CYP) treatment induces chemical cystitis leading to bladder overactivity (OAB) in animals and humans. There is a great number of OAB models evaluations, which consider the bladder histology, as well as alterations in neurochemical, electrophysiological properties of bladder afferent neurons and reflex arcs activity in the spinal cord. However there are no data differentiating cystometrically acute and chronic models of OAB induced by CYP under urethane anaesthesia. The aim of this study was to investigate the influence of acute and chronic models of CYP-induced cystitis on urinary bladder motor activity in rats.

Material and Methods: Experiments were performed on 30 adult female Wistar rats. Acute and chronic chemical cystitis was induced by CYP. CYP was administrated intraperitoneally in a single dose 200 mg/kg i.p. to elicit acute inflammation or in 75 mg/kg i.p. every 3rd day for 7 days to elicit chronic inflammation. The animals were randomly divided into 3 groups of ten animals each: group I (healthy rats), group II (acute CYP treatment – single dose) and group III (chronic CYP treatment – 4 doses). Cystometry was performed 1 h after surgical procedure, under urethane anaesthesia, in