

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.

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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.

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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.

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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