Abstracts of
EAU 4th North Eastern European Meeting (NEEM),
EAU 6th South Eastern European Meeting (SEEM),
and EAU 10th Central European Meeting (CEM)
renewal. We decided to examine the expression of OCT4A splice variant and its role in pattern of tissue invasion in urothelial bladder cancers.

Material & Methods: The OCT4A was evaluated in archival, formalin fixed, paraffin embedded bladder cancer specimens obtained from 85 patients. Expression was examined with immunohistochemical method using monoclonal anti-OCT4A antibody and Envision detection system. We assessed the intensity of positive cells as negative (0), faint (1) or distinct (2) and the number of OCT4A positive cells (OCT4A+) per 1000 cells.

Results: The most advanced tumors (pT4) showed higher level of cells with the OCT4A expression, when compared to less advanced tumors. Nonetheless, the percentage of OCT4A+ cells in papillary (pTa) and in situ tumors was similar to that observed in advanced pT3 tumors. Furthermore, high-grade tumors showed more than three times higher OCT4A level than low-grade tumors. The styloid pattern of tissue invasion was accompanied by the highest number of OCT4A+ cells comparing to other patterns of infiltration. The styloid infiltration was significantly correlated with number of OCT4A+ cells. The expression of OCT4T in nested and dispersive types of tissue invasion was similar to that observed in normal epithelium, slightly elevated in frontal type, and almost two times higher in styloid type.

Conclusions: The elevated percentage of OCT4+ cells in styloid type tissue invasion could be correlated with well-known higher aggressiveness of bladder tumors with this pattern of infiltration. Our results suggest that OCT4+ cells may be of importance in urinary bladder cancer behaviour affecting the morphology, progression, tissue invasion and aggressiveness of bladder cancer. Next, we plan to investigate the expression of OCT4B isoform and its function in pathogenesis of bladder cancer. The work was supported by grant 64/2009 from Nicolaus Copernicus University

N38 SENSITIVITY AND SPECIFICITY OF SERUM MARKER CA-125 IN PATIENTS WITH UROTHELIAL CARCINOMA
Yakovlev P.G.1, Sakalo V.S.2, Mrachkovsky V.V.2, Kondratkien A.V.2, Hryhorenko V.M.1, Oliienchik G.P.2
1Kyiv Municipal Oncology Hospital, Dept. of Urology, Kyiv, Ukraine, 2SE Institute of Urology AM of Ukraine, Dept. of Oncology, Kyiv, Ukraine, 3Kyiv Municipal Oncology Hospital, Dept. of Surgery, Kyiv, Ukraine

Introduction & Objectives: Serum marker CA-125 was reported to be an informative measure of locally advanced process or locally progressed urothelial cancer. We prospectively tested the sensitivity and specificity of serum marker CA-125 in patients with urothelial cancer of upper urinary tract in urine bladder who had metastases to regional lymph nodes (RLN).

Material & Methods: From 2008 through 2010 total of 53 patients were tested for serum CA-125 concentrations in 33 patients, postoperatively, postoperatively or after adjuvant treatment where appropriate, range 1-3 tests postoperatively. There were 40 males and 13 females, with median age of 50 years (range 45-71 years). Patients with urine bladder cancer were 29 (54.7%), patients with renal pelvis cancer were 11 (20.8%), ureteral cancer 5 (9.4%) patients had cancer of other locations (kidney, caecum, throat). There were 15 (28.3%) patients with N+ status, and 13 (24.5%) patients had distant metastases at the time of testing. Testing on CA-125 was done using standard ELISA technique. Control group for testing consisted of 10 healthy employees of our hospital, aged 20-43 (median 30 years), 7 males and 3 females. The CA-125 index for control for small and male was 3.46 IU/ml (range 0.9-5.5 IU/ml), and 4.37 IU/ml (range 2.5-7.5 IU/ml) for females. Sensitivity was calculated based on the formula “Sensitivity=AN/A (A)”, where A=number of patients with true positive RLN, and N=number of patients who did have metastases to the RLN. Specificity was calculated based on “Specificity=BN/B” formula, where B=number of patients true negative RLN, and M=number of patients who had no RLN metastases. Validity of the test was assessed using logistic regression model, based on the calculated formula for the probability of metastasis based on the CA-125 level: p = 1/(1+exp(-1.85-0.12Ca125)), where p = probability of metastases, function exp(x) – is degree of Euler constant, equal to 2.718.

Results: CA-125 lower 11.7 IU/ml signified localized process with G1-2 without positive RLN. CA-125 higher than 23 IU/ml signified positive RLN with proportionate increase in the situation. Preoperative testing for metastases was assessed to be higher than 0.5 when CA-125 is 15 IU/ml or higher. When CA-125 is 30 IU/ml probability of metastases to the RLN is 86%. When the RLN metastasis threshold was set at 0.383 in logistic regression model, the sensitivity of the CA-125 test was 94.59%, specificity was 54.17%.

Conclusions: Preoperative CA-125 is a sensitive and informative measure of lymphadenopathy in patients with urothelial cancer of upper urinary tract and urine bladder, the sensitivity of the CA-125 test is 94.59%, specificity is 54.17%.

N39 THE SIGNIFICANCE OF A14B7 VARIANT OF CDKNA2 GENE IN BLADDER CANCER PATIENTS
Borkowska E.M.1, Jedrzejczyk A.2, Kruk A.1, Traczyk M.1, Pietrusinski M.1, Marks P.1, Kałużewski B.2
1Medical University of Lodz, Dept. of Clinical and Laboratory Genetics, Lodz, Poland, 2John Paul II Regional Hospital In Balichów, Dept. of Urology, Blichow, Poland, 3University of Lodz, Dept. of Ecology and Vertebrate Zoology, Lodz, Poland

Introduction & Objectives: Cancer of the bladder is a common malignant disease in Poland. Molecular genetic alterations play a key role in bladder cancer carcinogenesis. Understanding genetic events that lead to initiation and progression of bladder cancer remains an important challenge in urological research. A major interest in human genetics is to distinguish functionally neutral mutations from those that contribute to the disease. The aim of our study was to characterize A14B7 polymorphism in bladder cancer patients.

Material & Methods: 44 lesions were determined to be non-invasive tumors (pTa), whereas 36 tumors were invasive (pT1a). Tumor grade was noted to be low in 46 cases and high in 34 cases. DNA samples from blood were evaluated for CDKN2a variants with the use of PCR-MSSCP and sequencing method.

Results: We found common polymorphic variants reported in literature at codon 148 in exon 2(Arg148Thr) and at nucleotides 500 and 540 in the3'untranslated region. We compared the obtain frequencies for the particular CDKN2a variants with the control group for the Polish population examined by Debrissak and colleagues (Cancer Research 2005) and we observed a significant difference in A148T polymorphism occurrence in the group of bladder cancer patients (G test, table 2x2: N bladder cancer group)p<0.01, N0 control group)=1210, G=10.214, p<0.01). The N500c, N540 ctt polymorphisms recorded in the group of bladder cancer patients in our study was not different from those recorded in the control group.

Conclusions: The A148T variant of CDKN2a gene seems to be associated with an increased risk of bladder cancer development. This work was supported by State Committee for Scientific Research, Poland (KBN grant no 2P06C 076-30).

N40 DISCONTINUANCE OF BCG IMMUNOTHERAPY FOR NON-MUSCLE INVASIVE BLADDER CANCER IS ASSOCIATED WITH LOWER PROGRESSION FREE SURVIVAL
National Cancer Center of Belarus, Dept. of Urology, Minsk, Belarus

Introduction & Objectives: BCG immunotherapy is associated with substantial number of side effects which may lead to treatment cessation. The aim of the study is to investigate whether the occurrence of side effects or discontinuation of BCG therapy is related to occurrence of progression-free survival.

Material & Methods: We retrospectively analyzed data from 120 patients treated with 6-week course of intravesical BCG after complete transurethral resection of bladder tumor between 2003 and 2007 at our institution. Side effects were graded according to National Cancer Institute Common Toxicity Criteria and the association between occurrence of side effects or discontinuation of BCG therapy because of side effects and tumor recurrence or progression was analyzed.

Results: BCG related side effects were observed in 20 (16.7%) patients. Of these patients 9 experienced more than one complication. A total of 33 complications were registered. There were 9 (27%) grade I, 23 (70%) grade II and 1 (3%) grade III complications. The only one grade III complication was BCG-pneumonitis occurred in patient with family history of tuberculosis. Median follow-up period was 30.8 months. During this period recurrences were observed in 6 (50%) patients with and in 35 (35%) patients without side effects respectively. There was no difference in recurrence free survival in patients with side effects comparing to those without them (3-year survival 66.2% vs. 64.3%, respectively, p=0.6). Progression was observed in 2 of the 20 patients with side effects and in 5 patients without side effects with no difference in progression free survival (3-year survival 90.0% and 92.9%, respectively, p=0.4). Treatment was discontinued in 12 patients, in 10 of them due to side effects. Of these 10 patients progression was observed in 2 (20%) cases, while in 108 patients for whom treatment was completed, progression was noted in 5 (4.6%) patients. There was a significant difference in progression-free survival between these groups (3-year survival – 80.0% vs. 93.5%, respectively, p=0.049).

Conclusions: These findings suggest that BCG therapy should not be discontinued due to side effects whenever it is possible, because this may lead to unfavourable outcome regarding tumor progression.

N41 BLADDER PRESERVATION BY TRANSURETHRAL RESECTION FOR HIGHLY SELECTED MUSCLE INVASIVE BLADDER CANCER
Can C., Başeskioglu B., Yenilmaz A., Özen A., Kaya C., Dönmez T., Kaile M.
Esgou Medical Faculty, Dept. of Urology, Eskişehir, Turkey

Introduction & Objectives: To evaluate the treatment results of patients whose had single pT2 urothelial cancer and no residual tumor in reTUR.

Material & Methods: 21 patients who had not residual tumor in second TUR diagnosed as pT2 urothelial cancer before, were included in the study. Resection criteria for reTURs were 1cm normal mucosal margin and perivesical fat tissue in tumor bed. Staging computerized tomographies were done for all patients. Cystectomy was the treatment choice for patients who had residual tumor in reTURs. Follow up was done by three-monthly cystoscopy and tomography.

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