Conclusions: We present 15 cases of spindle and cuboidal renal cell carcinoma, which is believed to be a distinctive morphological entity. We observed an association with nephrolithiasis in three of our cases; moreover, one of our tumours had a conventional renal cell carcinoma component and another revealed a metastatic focus in a regional lymph node. This study confirms that spindle and cuboidal renal cell carcinoma has a low malignant potential.

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C131
POSSIBLE ROLE OF THE PADUA SCORE IN SELECTING PATIENTS WITH SMALL RENAL MASS FOR LAPAROSCOPIC OR OPEN PARTIAL NEPHRECTOMY

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Introduction & Objectives: Comparing open and laparoscopic nephron sparing surgery (NSS) the latter provides less pain, shorter hospitalization, earlier reconvalescence and better cosmetic results. The warm ischemic time (WIT), however, is longer and application of cooling measures is more complicated. Some scoring systems have been advocated to predict the complexity of surgery (C-index, RENAL, PADUA). Our aim was to assess the association between WIT and PADUA score (Eur. Urol 56: 786-793, 2009) in open and laparoscopic NSS.

Material & Methods: Between January 1, 2008 and 15 June, 2012 one hundred and ninety five NSS were performed for small renal masses (SRMs) in our hospital. The WITs were prospectively registered in patients’ medical records. Preoperative CT or MRI scans were re-evaluated by the authors and PADUA scores were calculated for 94 laparoscopic and 46 open cases. Patients were stratified into groups according to scores (4-7, 8-9, 10 or above) and type of intervention (open or laparoscopic). Statistical parameters for each group were calculated and means were compared using Students’ two-tailed t-test.

Results: Mean WIT were 20.8 and 16.1 minutes in PADUA 6-7 groups (p = 0.004), 23.3 and 20.4 minutes in PADUA 8-9 groups (p < 0.01), 28.3 and 23.1 minutes in PADUA 10+ groups (p = 0.05) int he laparoscopic and open groups respectively.

Conclusions: For each pair of groups we found statistically significant difference in term of mean WIT’s between open and laparoscopic surgery. This may have little clinical importance, if the PADUA score is less than ten, because the WIT’s were far within the undesirable range. PADUA score over ten, however, is associated with a near to 30 minutes WIT in laparoscopic group, so open NSS (and/or cooling) should be considered. We strongly believe that PADUA scoring may help in a more appropriate selection of mode of the intervention.

C132
PREDICTIVE PARAMETERS OF METASTATIC RENAL CELL CARCINOMA

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Introduction & Objectives: Definition of the clinical and laboratory parameters in relation to metastatic renal cell carcinoma (RCC) in patients indicated for surgery.

Material & Methods: The total of 210 patients underwent surgery for kidney tumor from May 2008 to February 2012. Age, sex, smoking history, body mass index, clinical symptoms and selected laboratory and perioperative parameters in all patients were recorded. Histological examination included the determination of the type and tumor size, grade and other histological findings. The significance of each parameter was evaluated using the nonparametric ANOVA method (Wilcoxon test). The relative risk was found by the method of regression model for the generalization of the tumor. Multivariate analysis was done using the Cox regression model.

Results: The average age of patients was 64 years (22-84), the total of males were 143 (66%), smokers 62 (28%). The mean BMI was 30.0 (19.1 to 45.2). Incidentally found RCC was described in 165 (71%) cases. Primary metastatic RCC was found in 36 (17%) patients. The total 65 (30%) patients underwent resection of the kidney, 21 (32%) laparoscopically. Benign tumor was diagnosed in 20 (9%) patients, most common cancer was clear cell RCC (72%). Statistically significant parameters for metastatic RCC were weight loss, CRP level, thrombocytosis, tumor size and presence of symptoms (all p <0.001), hemoglobin level (p = 0.0003), tumor grade (p = 0.0004), chronic kidney disease (p = 0.0006) and neutrophilia (p = 0.0239). Favorable parameter for localized tumor was incidentally found tumour (p <0.0001). Benign tumors were more frequently diagnosed in women (p = 0.0204). Blood loss, operating time and duration of hospitalization were significantly different from the open and laparoscopic procedures.

Conclusions: Many clinical and histological parameters were statistically significant for predicting a generalized RCC. The risk of metastatic RCC in patients with CRP > 15mg/ml is twenty times higher, with hemoglobin < 120 g/l 4.5times higher, with platelets above 350 x 10^9 times higher and with tumor size above 9 cm 7.6 times higher. The work was supported by grants MPO TIP FR-T13/686 and VZ MSM 0021620808.

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INTERFERON ALPHA AND METRONOMIC CYCLOPHOSPHAMIDE FOR METASTATIC KIDNEY CANCER

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Introduction & Objectives: Although interferon alfa (IFN) is being replaced by new drugs, its place in modern disseminated kidney cancer therapy is not well established especially when combined with new chemotherapeutic strategies. The aim of the study was to assess efficacy and toxicity of metronomic cyclophosphamide (mCTX) combined with IFN in kidney cancer patients without other treatment options.

Material & Methods: After receiving bioethics committee approval and informed consent from each participant 33 patients were enrolled and assessed for toxicity and 31 for efficacy of the therapy. All patients received 50mg oral cyclophosphamide daily and subcutaneous IFN 9 million units 3 times a week. Toxicity was monitored continuously and tumor response was assessed by RECIST v1.0 criteria every 3 months.

Results: The most common toxicities were anemia, leucopenia, and lymphopenia reaching grade 3 or 4 in 8 cases. Reduction in IFN or temporary withdrawal without mCTX dose modifications or withdrawal was sufficient to control those adverse events (AEs). Other AEs were of lower magnitude. No patient achieved a complete response, 2 (6.5%) patients experienced partial responses (PR), and 12 (36.4%) had stable disease (SD) for at least 24 weeks; clinical benefit (CR+PR+SD) 42.5%. Progression free survival and overall survival were 7.95 and 14.61 months respectively. Responders had significantly longer survival than non-responders (p=0.004). The lower baseline level of natrium and fibrinogen and the higher level of hemoglobin were positive predictors of response to therapy. In patients who had the same fibrinogen level decreased after the first cycle of treatment, the probability of response was higher than in those whose fibrinogen concentration did not change or increase (p=0.036). Additionally, patients in whom the decrease in fibrinogen level after first cycle continued, were much more likely to experience a response than those in whom, after the initial drop, an increase was observed (71.45% vs. 11.1%, p<0.011). No patient who experienced an elevation of fibrinogen concentration after first cycle experienced a response. ROC analysis showed that patients with fibrinogen level below 4.4 g/l were more likely to respond to therapy (41.7% sensitivity, 92.9% specificity, AUC 0.732).

Conclusions: Combined treatment with IFN and mCTX showed considerable amount of clinical benefit in metastatic kidney cancer patients. Although several grade 3 and 4 AE were observed, modifications of IFN dosage was sufficient to control AEs. Fibrinogen kinetics might be a predictive tool to assess patients for response. This trial warrants further research into this drug combination in patients without other treatment options.

C134
NEFROMETRY R.E.N.A.L. AND ITS PREDICTIVE VALUE FOR A PROGNOSTIC RISK OF THE RENAL CELL CARCINOMA

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Introduction & Objectives: Fuhrman nuclear grade (FG) is the most commonly used grading system in the renal cell carcinoma (RCC) evaluation and it provides an important prognostic value for disease outcome. The R.E.N.A.L. nefrometry is a new nomogram focused on Fuhrman grade and it is mainly used to predict high grade renal cell carcinoma. The aim of our work was a practical validation of the prediction nomogram.

Material & Methods: The scoring system consists of 5 components: R (tumor diameter), E (exophytic/endophytic tumor growth), N (tumor distance to the collecting system), A (tumor anterior/posterior localisation), and L (tumor location in the relation to the polar lines). We reviewed computed tomography (CT) or magnetic resonance (MR) imaging scans from 47 patients who underwent partial nephrectomy or radical nephrectomy in the years 2009 -2011. Radiologic images were evaluated by one urologist and the Fuhrman grade was reviewed by two experienced pathologist. Patients were stratified into 4 categories with the reference to histopathological grade G1 – G4.

Results: There were 47 patients participating on the study. An average age in a cohort was 65.89 years (43 - 88). Of all patients, 29 (61.7 %) were men, 18 (38.3 %) were women. The highest grade G4 was assessed in 11 patients (23.4 %). Clear cell carcinoma was identified in all patients. We confirmed significant Pearson correlation grade vs. R.E.N.A.L. score = -0.559 (p < 0.01). The average R.E.N.A.L. score was significantly different relating to various Fuhrman grade. The average score increased with reference to accrual of grade in separate categories G1 vs. G2 vs. G3 vs. G4 – 7.71 (SD ± 2.5) vs. 8.63 (SD ± 1.5) vs. 9.5 (SD ± 1.2) vs. 10.81 (SD ± 0.9).

Conclusions: Nefrometry R.E.N.A.L. score confirmed predictive value for prognostic risk of the renal cell carcinoma according to the Fuhrman grade.