Conclusions: The portion of myeloid and plasmocytoid dendritic cells in the peripheral blood corresponds to healthy population. We observed partial maturation of DCs in tumors, however, the presence of higher number of regulatory T-lymphocytes point to the possibility of the suppression of local immune response aimed at tumor cells. All these findings will contribute to the preparation of DC vaccination protocol for patients with renal cell carcinoma. Supported by Grant Agency of Charles University no.7753/2007.

C57
Histological finding of the tumor necrosis in the renal cancer specimen as a negative prognostic factor

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Introduction and Objectives: Histological finding correlates with tumor grow, biological activity and could be essential for the patient future. We have tried to confirm relationship between the histological presence of the tumor necrosis and patient's prognosis.
Material and Methods: Retrospective analysis of the histological finding of the renal cancers removed by total or partial nephrectomies since 2001 to 2005 was carried out. Histological type, tumor necrosis presence, tumor size, signs of the sarcomatoid transformation and nuclear grade according to the Fuhrman's grade were focuses of our interest. The follow-up was 4 to 8 years. We have evaluated progression disease rate and censored death due to cancer generalization.
Results: Overall 228 renal cancers were removed, tumor necrosis was found in 61 patients (26.8%) – 53 patients with clear cell cancer (86.9%), 8 patients with papillary cancer (13.1%). Tumor size in this group was from 30 mm to 170 mm, median 70 mm. Tumor stage: pT1a in 5 pts (8.3%), pT1b in 16 pts (26.3%), pT2 in 11 pts (18%), pT3a in 14 pts (22.9%), pT3b in 14 pts (22.9%), pT3c in 1pt (1.6%), pT4 in 0 pts.(0%). N+ was found in 20 pts (32.8%), N0 in 41 pts (67.2%), M+ was confirmed in 17 pts (27.9%), M0 in 44 pts (72.1%). Nuclear grade GI was in 0 pts, GII in 6 pts (9.8%), GIII in 33pts (54.1%), GIV in 22 pts (36.1%). Overall 39 pts (63.9%) from these 61 pts have died in median 8 months after nephrectomy. Simultaneous presence of the tumor necrosis and sarcomatoid transformation were confirmed in 6 pts, all of them have died in median 6.5 months after surgery.
Conclusions: Tumor necrosis is serious negative prognostic factor. Tumor necrosis can be found even in small asymptomatic tumors. It is always indicator of the fast and aggressive tumor grow. Simultaneous presence of the tumor necrosis and sarcomatoid transformation are always signs of the high malignant potency of the renal cancer.

C58
Spontaneous rupture of the renal pelvis

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Introduction and Objectives: The aim of our study was to evaluate the etiology, diagnosis and treatment of the spontaneous rupture of the renal pelvis.
Material and Methods: From 1999–2008, we evaluated and treated 11 patients (6 women and 5 men) with spontaneous rupture of the renal pelvis. The diagnosis was confirmed by abdominopelvic CT with contrast agent or by intravenous urography and by retrograde ureteropyelography. The cause of spontaneous rupture of the renal pelvis was a ureteral stone in 8 cases and ureteral stricture in 3 cases.
Results: Four patients with ureterolithiasis in lower ureter underwent primary ureteroscopic lithotripsy and stenting and no auxiliary treatment was required. Four patients with ureterolithiasis in upper ureter we treated with sole stenting and the secondary intervation was performed 28 – 60 days (average 37 days) after initial procedure. The patients with ureteral stricture were primary treated with stent placement. One patient underwent endoluminal incision 45 days after initial procedure and two seriously ill patients were managed with chronic ureteral stent changes. All rupture of renal pelvis recovered without complication.
Conclusions: Spontaneous rupture of the renal pelvis is a rare complication of the obstructive uropathy. Sole stenting of the ureter is reseverd for ureteral stricture and for stones of the upper ureter or pelvic ureteric junction. Ureteroscopic lithotripsy followed by double-J stenting of the ureter is a treatment of choice for stones of the lower ureter with rupture of renal pelvis.

C59
Image fractal analysis in retroperitoneal fibrosis – 5 years of experience with 19 patients

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Introduction and Objectives: To evaluate effective prognostic factors in the evolution of patients with retroperitoneal fibrosis and to establish the validity of fractal analysis in determining the disease severity in these patients.
Material and Methods: The study included 19 pts (M/F: 5/14) with a median age of 56, 4 yrs treated for idiopathic retroperitoneal fibrosis and bilateral obstructive renal failure between Jan 2004-Dec 2008. The data were evaluated about medical history, physical examination findings, laboratory tests, imaging methods (abdominal CT-scan, MRI), surgical treatment performed. All the patients had ureterolysis and omental wrapping. Parameters assessed on helical CT were: fibrosis width, interureteric distance, maximal cranio-caudal length in sagital section and fibrosis surface area – using fractal analysis. The patients were followed up postoperatively at 3 and 6 mts. Assessment of renal function was based on the clearance of creatinine and helical CT scan at 6 mts. Positive outcome was considered an increase of clearance of creatinine and a decrease of hydronephrosis level.
Results: All patients had at admission high BUN levels, with a median creatinine level 10.2 (range 6.5–18.7 mg/dl), median clearance of creatinine = 27 mL/min/1.73 m^2. They were initially stented (17-bilateral/2-unilateral), but after 2 days, 16(84.2%) underwent bilateral nephrostomy for further decreasing of BUN levels or for oligoanuria. Preoperative median serum creatinine was 2.3 (range 3.7–1) median clearance of creatinine=70 mL/min/1.73 m^2. Median imaging parameters preop. were: 3.8 cm (range 6–2.2 cm) fibrosis width, interureteric distance at intervertebral discus L4-L5= 6.8 cm (range 5.6–9.2 cm), fractal dimension of the fibrosis surface area=1,67788, maximal cranio-caudal length in sagital section 10.8 cm (range: 7.9–13.4 cm). Postoperative, at 3 mts, the median clearance of creatinine had an increase of 10% (range:60–80 mL/min/1.73 m^2) and at 6 mts the median clearance of creatinine had an increase of 21% (range:75–98 mL/min/1.73 m^2). 6 of 19 pts had a stable GFR

rate, with a median clearance of creatinine of 73 mL/min/1.73 m^2. Except for the increase in fractal dimension of the fibrosis surface area, no significant differences were found between the improvement of renal function and metabolic and imaging parameters. An increase in fractal dimension expressed by greater complexity may correlate with a lower increase of the clearance of creatinine.

Conclusions: The imaging parameters did not predict the disease severity, except the increase in fractal dimension of fibrosis surface area. Efficacy of bilateral ureteric stenting in improving renal function is limited in most cases. Metabolic parameters and predisposing factors and extent of the disease seemed to be important risk factors for predicting retroperitoneal fibrosis severity.

C60
Lymphocele after kidney transplantation

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Introduction and Objectives: The term lymphocele denotes a limited collection of serous liquid in the wound after kidney transplantation. Lymph flows into the operation wound from the damaged lymphatic vessels in the vicinity of the iliac veins of the recipient or from the lymphatic vessels in the hilum of the kidney damaged during its removal from a cadaveric or living donor. The family of lymphoceles includes also persisting lymph flow through a drain placed in the wound after kidney transplantation. Symptomatology of the lymphocele depends on its size and location. Small asymptomatic lymphoceles predominate that are found accidentally during a post-surgery follow-up of the patient. Large lymphoceles squeeze and compress the ureter of the transplanted kidney hereby impeding the drainage, which eventually impairs the function of the transplanted kidney. The pressure of the lymphocele on the venous drainage in the small pelvis of the recipient brings about an oedema of the ipsilateral lower limb or of the genitalia. Sovereign diagnostic methods include USG and CT. Resolution between an urinoma and lymphocele is based on biochemical examination of the content of the lymphocele. The treatment of lymphocele consists in percutaneous or laparoscopic drainage, or in open marsupialization of the lymphocele into the peritoneal cavity. Very rarely can one identify the vessel from which lymph is flowing out and to handle it surgically. Small asymptomatic lymphoceles do not require active treatment.

Material and Methods: Between 2007 and 2009, 131 kidneys have been transplanted to 72 men and 59 women. 125 kidneys have been removed from cadaveric, 6 kidneys from living donors. In 17 patients (12.9%) we have found symptomatic lymphoceles. The lymphocele was observed more often in women (10/59 = 16.9%) than in men (7/72 = 9.7%) and was diagnosed on the average 12.4 days (from 7 to 20 days) after surgery. In 14 patients, the dominant symptom of the lymphocele was impaired function of the transplanted kidney with ureterohydronephrosis. In 3 patients the lymphocele caused oedema of the lower limb.

Results: In 2 patients, lymphocele resorbed spontaneously. 9 lymphoceles were drained by a percutaneously inserted punction drain (in one case the ureter of the transplanted kidney was hereby injured). The six largest lymphocelas were marsupialized into the peritoneal cavity. Three operations were performed laparoscopically, three operations by open surgery.

Conclusions: Active treatment of the lymphocele consists of its drainage. In the treatment of largest lymphoceles, the open surgical approach proved to be good by lower midline laparotomy. In this way one can avoid the transplanted kidney while identifying the extent of the lymphocela and performing targeted marsupialization, possibly also inserting a lappet of the omentum into the cavity of the lymphocele. All lymphoceles have been treated successfully, not even one transplanted kidney has been lost.

C61
The ureter in patients after kidney transplantation

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Introduction and Objectives: Urological complications present a significant cause of morbidity and mortality after kidney transplantation. They often require surgical revision and may lead to a loss of the transplanted kidney. The most frequent place of occurrence of urological complications it the ureter of the transplanted kidney. Complications arise in the case of affection of both the proximal and distal sections of the ureter.During the removal of the kidneys from a dead or living donor, the blood supply of the ureter may be damaged. After kidney transplantation this leads to necrosis of the ureter. Due to a technical mistake, complications may occur at the site of reimplantation of the ureter into the bladder of the recipient or at the place of uretero-ureteral anastomosis, and also a kink of the ureter may occur. Bleeding from the stub of the ureter is another reason of complications. These may be early (until 1 month after kidney transplantation) or late (months or even years after transplantation).

Material and Methods: The authors analyze the reasons of complications related to the ureter of the transplanted kidney. In the group of 131 patients, 135 reconstructions of the lower urinary tract have been performed. In 110 patients the ureter was implanted transvesically using the antireflux technique of Politan and Leadbetter, 22 times the method of direct reimplantation after Boeminghaus in the case of a small and shrunk bladder was used, and twice the reconstruction of the lower urinary tract was performed by side-to-side connection of the ureter of the transplanted kidney with the bladder of the recipient. In three patients the ureter was implanted into an ileal loop after ureteroileostomy. In 120 patients the reconstruction of the lower urinary tract was secured using drainage by an ureteral stent.

Results: The most frequent complication was bleeding from the ureteral stump during the first days after surgery (in 5 women and 4 men). In all patients, this complication was resolved by transureteral fulguration of the bleeding site. In one female patient, a urinary fistula developed with necrosis of the terminal section of the ureter, in one patient the cause of a urinary fistula was unhealed cystotomy. Stenoses of the distal ureter were observed in 4 patients (3 women and 1 man). In 5 patients (2 women and 3 men) we diagnosed a kinked ureter as the cause of insufficient drainage of the transplanted kidney. All complications resulting from pathology of the ureter of the transplanted kidney were successfully resolved surgically. In 2 patients we replaced the ureter of the transplanted kidney by a segment of ileum.

Conclusions: Temporary drainage of the ureter by an ureteral stent proved to be the only explanation for the marked decrease of severe urological complications (urinary fistulas and obstruction, particularly in the early stage after kidney transplantation) in comparison with previous data recorded in our centre, when endoprostheses were not used.