2010), 15 patients underwent PCNL for renal stones in a solitary kidney. The mean age of patients was 56,4±13,7 years (range 27÷76 years) and male to female ratio was 1,14. The mean stone burden was 837,5±301,6 (range 178,9÷1334,5). 9 patients (60%) had staghorn kidney lithiasis and 2 patients (13,3%) had multiple renal calculi. 60% of patients had renal insufficiency. PCNL was performed with rigid 27Ch nephroscope Olympus and ultrasonic lithotripter (LUS-2, Olympus). Patient follow-up at the third and sixth month included plain abdominal radiography, ultrasonography and blood and urine samples.
Results: The stone-free rate after one session of PCNL was 80%. 3 patients (20%) had rests > 5 mm and were treated successfully with ESWL after insertion of double J ureteral stent. 8 patients (53,3%) had positive urine culture and 3 patients (20%) had pyonephrosis, which necessitated antimicrobial therapy. The 2 most important complications were fever and postoperative haematuria, which developed in 1 patient (6,7%) and 2 patients (13,3%), respectively. No complications such as disturbances of electrolyte balance or major bleeding, requiring surgical treatment, were observed. All patients were discharched at the 3rd postoperative day without a nephrostomy tube.
Conclusions: Percutaneous nephrolithotripsy is a safe and effective procedure in the treatment of patients with solitary kidney with high stone-free rate and acceptable complications rate.

S196 A NEW IMAGING METHOD OF MULTIMODAL DIAGNOSTIC IN PATIENTS WITH UROLITHIASIS

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Introduction & Objectives: The urolithiasis presents 25 to 50 % of the genitourinary system pathology. Till now, there is no complex imaging method that provides full and correct information about nephrolithiasis, possible complications and the therapy effect.The aim of the study was to apply a new multimodal diagnostic method in patients with urolithiasis. We had to estimate its significance for the diagnosis of calculosis and the degree of persistent complications.
Material & Methods: Thirty patients (15 male, 15 female) with 60 kidneys, middle age - 46,5 years, were studied. All of them first underwent ultrasonography (US). Then, the patients were examined with a new hybrid technology, including dynamic renal scintigraphy (DRS), single photon emission computed tomography (SPECT) and low dose computed tomography (CT). A diuretic test with furosemide was performed in 16 patients (53%) in order to differentiate the hydronephrosis and the type of the nephropathy – obstructive or non-obstructive.
Results: By using the combined method (DRS - SPECT/CT), urolithiasis and its complications was found in 24 (80%) patients and in 36 (60%) kidneys. With the low dose CT were detected 42 concrements, 30 of them in the kidney and 13 in the ureter. After performing DRS, a different degree of impaired drainage was determined in 25 (42%) of the investigated kidneys. Secondary sings of obstruction on CT were found in 15 (25%) of the kidneys. The diuretic test showed: obstructive nephropathy in 15 of the kidneys (25%), non-obstructive nephropathy - in 11(18%), and intermediate reaction – in 8 (13%) of the kidneys.
Conclusions: Our first experience in appliance of SPECT/CT shows that this method provides complex diagnosis of urolithiasis with not only functional but morphological information by using low dose CT technique for imaging of the renal structures and accurate localization of the concrements. We could conclude that the new method shortens the diagnostic process in patients with suspected urolithiasis by performing single complex study.

S197 EVALUATION OF THE EFFICIENCY OF TAMSULOSIN AND ROWATINEX IN PATIENTS WITH DISTAL URETERAL STONES: A PROSPECTIVE, RANDOMIZED, CONTROLLED STUDY

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Introduction & Objectives: To compare the efficiency and spontaneous expulsion rates of tamsulosin and Rowatinex in patients with distal ureteral stones.
Material & Methods: Between March-July.2009, 90 patients with distal ureteral stones <10mm in size were included in the study. Patients were randomized in 3 groups: Group 1 (n=31, those received 0.4 mg tamsulosin once daily), Group 2 (n=30, those received 100 mg Rowatinex capsules 3 times a day), and Group 3 (n=29, those received diclofenac 100 mg once daily). All patients were followed up for 10 days.
Results: Mean age of the patients were 42.4±16.1 (range, 22-75), 46.5±16.5 (range, 22-76) and 43.5±16.6 (range, 18-71) years in Groups 1-3, respectively. On admission, 37.8% had hematuria and 78.9% had lower urinary tract symptoms (LUTS). No statistically significant differences were detected between the 3 groups regarding patient age, gender, mean stone size, stone location, stone site, additional analgesic requirement, number of ureteral colics during the treatment and upper urinary tract dilation. The mean stone expulsion time was 3.5 days in Group 1, 6 days in Group 2, and 7 days in Group 3 (p=0.02). Stone expulsion rate was significantly high in Group 1 compared to Group 2 (p=0.002). Similarly, stone expulsion rate was significantly high in Group 1 compared to Group 3 (p=0.001).
Conclusions: Medical treatment with tamsulosin seems to be effective in patients with distal ureteral stones <10mm in size. However, use of Rowatinex does not seem to have any significant effect on clearance rate of distal ureteral calculi.

S198 DOES SIMPLE MALROTATION IN KIDNEY AFFECT PERCUTANEOUS NEPHROLITHOTOMY OUTCOMES: A MATCHED PAIR ANALYSIS IN MULTICENTRE STUDY

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Introduction & Objectives: The aim of the present multicentre study is to compare the outcomes of PNL performed in patients with and without malrotated kidneys.
Material & Methods: A total of 44 patients (Group 1) who underwent PNL in kidneys with simple malrotation at 6 different institutions were enrolled in our study. The attending authors also sent same number of PNL cases performed in non-malrotated (normal) kidneys (Group 2). The patients in group 2 were selected by match-pairing. Operative and post-operative data of both groups were compared using Chi-square, Student's t, and Fisher's exact tests.
Results: According to match-pairing, the demographics for both groups were completely similar in age, gender, BMI, stone size and stone location. In group 1, the male: female ratio was 1.75: 1 with a mean age of 41.6±13.3 years. Mean stone size was 5.9±3.5 cm^2 in group 1. Multiple accesses were required in 9 (20.5%) and in 7 (15.9%) patients in group 1 and group 2, respectively (p:0.58). Mean operation time was comparable in both groups (63.2±24.5 min for group 1 vs. 60.1±27.7 min for group 2; p:0.36). Mean drop in hemoglobin levels after PNL was significantly higher in group 1 (-1.9 g/dl & -1.3 g/dl; p=0.008). Success at the 3rd month after the procedure for group 1 and group 2 were 90.9% and 93.1%, respectively (p> 0.05).
Conclusions: Comparing to non-malrotated (normal) kidneys, PNL can be performed in malrotated kidneys with similar success rate but with increased hemoglobin loss.

S199 STENTED VERSUS NON-STENTED URETEROSCOPIC LITHOTRIPSY IN DISTAL URETERAL STONES

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Introduction & Objectives: Insertion of a ureteral stent is routinely done after ureteroscopy. Recently, several authors have questioned routine stenting after ureteroscopy for distal ureteral calculi. A prospective randomized controlled trial was performed to assess the need for routine ureteral stenting after ureteroscopic stone removal.
Material & Methods: In this study that was performed from Sep 2006 to Feb 2007, a total of 80 patients with distal ureteral calculi amenable to ureteroscopic treatment were prospectively randomized into stented (N= 44) and unstented (N= 36) groups. After ureteroscopy, the patients were assessed for urinary and gastrointestinal symptoms, postoperative pain score, analgesic requirement and time of anesthesia. Baseline variables (sex, age and stone size) were not significantly different in two groups.
Results: 82.5% (66 cases) of patients were male and 17.5% (14 cases) were female. The mean age of the patients was 41.7±16.6 years (range: 19-89). There was no statistical difference in urinary and gastrointestinal symptoms between the groups (p> 0.05). Furthermore, there was no difference in two groups in terms of the postoperative pain score, analgesic requirement and time of anesthesia (p> 0.05).
Conclusions: Routine stent placement after ureteroscopy in patients with distal ureteral calculi is advisable, because it has not excessive complications. Further prospective randomized studies are needed to assess the role of stenting after ureteroscopic lithotripsy in stone-free rate.