

complications. This shows that with careful selection of patients even in small volume centers a PCNL can be offered as valid treatment option.

C84

Destruction of stones in the kidney, bladder and ureter without harming catheter and basket material using an innovative low-energy laser shockwave mode

J. Neymeyer*, W. Abdul-Wahab Al-Ansari, T. Wuelfing, A. Apostolidis, C. Baecker, M. Beer. *Franziskus-Krankenhaus-Berlin, Dept. of Urology & Urogynecology, Berlin, Germany*

Introduction and Objectives: Using conventional systems for stone destruction such as Lithotripters, Ho:YAG lasers and alike is proven to have significant disadvantages regarding efficacy and intra-operative complications. Regarding lasers, in particular the negative effect of induced energy on sensitive material such as metal baskets or catheters are to be mentioned. Our aim was to demonstrate the first effective and flexible method of stone destruction without such side effects in the OR.

Material and Methods: This study included a total of 10 patients that have undergone treatment of stones in kidney, bladder and ureter. For intraoperative fixation of the stones, regular metal baskets were used. In two cases, the destruction of stones sticking to a catheter was required. Depending on the stone consistency, the multi-disciplinary laser DIOLAS LFD 3000 was switched between a set of programs for effectively destroying the targeted material.

Results: Highly interesting results were achieved in particular using a newly developed low-energy treatment program that has proven to induce no negative effect on sensitive material such as metal baskets or catheters. Even a direct contact with aforementioned elements did not have destructive impact. Still, the targeted stones were destroyed successfully.

Conclusions: The new treatment method enabled by the laser DIOLAS LFD 3000 opens up a whole range of future improvements in the destruction of stones. Further results will be published in the following months.

C85

Biological effects of extracorporeal shock wave lithotripsy

B. Mohamad Al-Ali*, K. Pummer, M. Auپرich. *Medical University of Graz, Dept. of Urology, Graz, Austria*

Introduction and Objectives: The present study was designed to prove if changes of glomerular Filtration rate (GFR) measured by dynamic Inulin-, as well as, creatinine-clearance (crea-Cl), lipid peroxidation assessed by plasma malondialdehyde (MDA) level And antioxidant system substantiated by plasma total antioxidant status (TAS) And serum total thiols (RSH) can be observed after ESWL-treatment of kidney Stones.

Material and Methods: Eleven patients (2 females/9 males), 51 years of age as average, (range: 25 to 69), having non-symptomatic kidney stones and no ESWL-therapy within One year, were eligible for inclusion. All patients underwent a single unilateral treatment By Dornier Doli S Lithotripter. The average number of shocks (sh) was 4000 (3000 to 4060sh) with an energy of 70%. For the evaluation sampling of blood and urine was undertaken three hours before SWL treatment, 1 hour, and 24 hours after SWL treatment.

Results: Eleven patients undergoing (their) first unilateral lithotripsy, for kidney Stones showed a decrease of GFR ($p < 0.001$) immediately after therapy, Which normalised to baseline level during 24 hours, while the values of crea-Cl remained unchanged ($p < 0.46$). Moreover, levels of RSH measured one hour After ESWL showed a decrease ($p < 0.01$), the levels of MDA demonstrated Statistically significant changes

at the same time($p < 0,058$), while levels of TAS remained unchanged($p < 0.17$). Another important finding were increased Levels of MDA ($p < 0.05$) and reduced levels of TAS ($p < 0.17$) and RSH ($p < 0.017$) at baseline.

Conclusions: Our results suggest that patients with renal stones suffer from Increased oxidative stress, compared to healthy population. ESWL induces the Production of shock wave generated free radicals determined by the Consumption of antioxidant substances. The measurement of GFR showed a Temporary decrease in renal function after lithotripsy but restitution to baseline Values until the next day.

C86

Digital semirigid ureteroscopy: a new standard in endoscopic imaging

D.R. Multescu*, V. Mirciulescu, B. Geavlete, P. Geavlete. *Saint John Emergency Clinical Hospital, Dept. of Urology, Bucharest, Romania*

Introduction and Objectives: Introduction of digital endoscopes provided a new standard for image quality in endourology. Our study aimed to analyze the performances of digital ureteroscopy, performed for the first time in Romania.

Material and Methods: We evaluated 47 digital semirigid ureteroscopies for ureteral lithiasis performed in the Urological Department of "Saint John" Emergency Clinical Hospital: 31 as primary interventions (Group I) and 16 after previous JJ ureteral stenting (Group II). An Olympus Endoeye semirigid digital ureteroscope was used in all cases. Maneuverability and image quality were noted by the same urologist with 1 to 5 points. A similar analysis was performed during 47 ureteroscopies using a Storz conventional ureteroscope (Group III).

Results: The success rate was 83.9% (26/31 cases) in Group I, 100% (16/16 cases) in Group II and 97.9% (46/47 cases) in Group III. In 5 cases of Group II, the larger diameter of the digital ureteroscope (12F at the tip) impeded the calculus approach, imposing conventional semirigid ureteroscopy. In 1 case of Group III, pyelocaliceal migration of a large stone fragment imposed flexible ureteroscopic approach. The scores noted in the 3 groups were 4.48, 4.50 and 3.53 for visibility and 3.93, 4.38 and 4.57 for maneuverability.

Conclusions: The new digital ureteroscopes offer an image of superior quality by comparison to the conventional ones. Although the large caliber at the tip of the semirigid video-ureteroscopes may reduce their maneuverability and accessibility, the method proved to be safe and efficient.

Poster session 6: Prostate cancer

Friday, 23 October 2009, 14:30-16:30

Poster room 3

C87

Balance between apoptotic and proliferative tissue markers in prostate cancer needle biopsies correlates with stage and Gleason score

M. Munda¹*, T. Hajdinjak², R. Kavalar³, D. Štiblar-Martinčič¹.
¹Faculty of Medicine University of Maribor, Dept. of Histology and Embryology, Maribor, Slovenia; ²University Clinical Centre, Dept. of Urology, Maribor, Slovenia; ³University Clinical Centre, Dept. of Pathology, Maribor, Slovenia

Introduction and Objectives: Tumor growth depends on balance between cellular growth (proliferation) and cellular death (apoptosis). Both processes are reflected in changes of tissue markers expression. Identifying a model which would take into account opposing nature of both processes and relate