

Results: A statistical difference was obtained between the plasma levels of β -endorphin at 0, 10 and 30 min of ESWL treatment ($p=0.002$, $p<0.05$ Friedman test). A statistical difference was not obtained between the plasma levels of ACTH at 0, 10 and 30 min of ESWL treatment ($p=0.698$, $p>0.05$ Friedman test). Between 10 and 30 min plasma levels of β -endorphin level were not found to be significantly different ($p=0.397$, $p>0.05$ Wilcoxin test). A moderate positive correlation was determined between 10 min β -endorphin levels and VAS scores ($p=0.01$, $p<0.05$ Friedman test).

Conclusions: Stress and pain caused by ESWL can be much better evaluated by β -endorphin rather than ACTH.

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ESWL monotherapy as primary modality of treating upper urethral stones

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Introduction and Objectives: Objectives: to present our experience with shock wave lithotripsy (ESWL) as a primary modality of treatment for upper urethral stones.

Material and Methods: From January 2006-June 2008 84 patients with upper ureteric stones were treated with ESWL as the primary modality with Siemens-Compact lithotripter. Aged 16-71 years old, male-female, ratio 2, 1-1, stone size 7-12 mm, pyuria was 0/84, clinical infections, 5/84, pre ESWL double J stenting 0/84, intanenuous sedation 84/84, duration of symptoms under 4 weeks 28/84, after 4 weeks 56/84, stone size less than 10 mm 63/84, more than 10 mm 21/84/ The patients were examined with sonography, intravenous urography, BUN,creatinin, microscopic urine examination.

Results: The clearance rate was 96% for stones less than 10 mm and 85% for stones larger than 10 mm

Conclusions: ESWL as monotherapy has best results (overall success rate was 95%) when the stones were less than 10 mm, minimal analgesia is required with modern lithotripters.

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Omnice Tocas in complex treatment of urolithiasis

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Introduction and Objectives: To conduct a randomized trial and determine the role of Omnice Tocas (Tamsulosin hydrochloride) as adjuvant therapy for the extracorporeal shockwave lithotripsy (ESWL) of kidney and ureter stones.

Material and Methods: From 02.2006 to 04.2007 were included 248 patients, of them 186 completed a full survey and were treated statistically, of them 121 were men and 65 women at mean age 52 ± 21 d. 77 ureter stones with medium size 9 ± 4 millimeters and 109 kidney stones with average size 13 ± 7 millimeters were lithotripped. Patients were randomized into two groups: Group A - patients treated with standard medications after ESWL: antibiotic, Prednisolon - 20 mg / 24 h for ten days and Diclofenac sodium in case of severe pain. Group B - patients received medication from Group A, but also Tamsulosin - 0.4 mg / 24 h was added for one month. All patients were followed for 4, 8, 12 weeks by KUB plain film combined with ultrasonography. The main values by which were compared the two groups were: ESWL efficiency, frequency of renal colic, time needed for elimination of the fragments, frequency of rehospitalisations, side effects.

Results: In the group of patients taking Tamsulosin, there was significantly better and faster elimination rate of stone fragments, that's why only for the first month 73.4% of them practically completely eliminated the stone fragments, while the group of patients receiving only corticosteroids, the value

reaching only 55.9% and $p<0.0001$. Only 6.8 percent of patients taking Tamsulosin, needed rehospitalisations unlike the other group of which 21.7% - $p<0.0001$ were rehospitalised. In the group taking Tamsulosin renal colic was observed in 24.6% of the patients, opposed to the group receiving only corticosteroids - 68.4% - $p<0.05$. We have not observed side effects leading to discontinuation of the treatment.

Conclusions: From the conducted comparative analysis of the different parameters in the two randomized groups clearly show out the benefits of adjuvant drug therapy after ESWL, where patients besides standard treatment with corticosteroids and analgesics additionally take Tamsulosin.

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Ureterolithotripsy with the Stonebreaker™ system

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Introduction and Objectives: To estimate the safety and efficacy of the Stonebreaker™ portable, cordless, pneumatic lithotripter for intra-corporeal lithotripsy of ureteral stones.

Material and Methods: Ninety-six ureteral stone disease patients, six of which were ESWL failures, were prospectively included in this study during an 18-month period. Stone number and position, number of shocks required for stone fragmentation to size sufficient for removal, as well as operative time were recorded for each patient. Lithotripsy was performed through a semi-rigid ureteroscope under epidural anesthesia.

Results: One hundred and four stones were treated in our patient population. Upper, mid and lower ureteral stones were located in 9 (8.6%), 27 (26.0%) and 68 (65.4%) patients respectively. Mean stone size was 1.8 cm (0.7-3.4). Mean number of shocks delivered was 29 (12-76). Stone fragmentation was achieved in all patients, including ESWL failures. Repeat ureterolithotripsy and renal ESWL due to stone migration were performed in four and three patients respectively. No evidence of ureteral trauma due to the lithotripsy was noted. All patients remained stone-free at a three month follow-up.

Conclusions: Stonebreaker™ lithotripsy represents a safe, effective procedure with a short learning-curve for the treatment of ureteral stone disease.

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Ureteroscopy in the management of pediatric ureteral stones

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Introduction and Objectives: To evaluate efficiency and reliability of ureteroscopy in the management of pediatric ureteral stones.

Material and Methods: A retrospective review was performed for patients (31 male, 30 female) at median age 8.1 years (range, 6 months-16 years) who underwent rigid ureteroscopy between August 1998-March 2009. 7.5 Fr-9 Fr rigid ureteroscopy was performed to 66 cases in 61 patients, thus, 5 patients were bilateral. Stone localizations were 7 in proximal, 9 in middle and 50 in distal ureter.

Results: Average stone size was 8.22 mm (range, 4-20). Average operation time was 32.65 minutes (range, 15-100). No hydronephrosis was detected in 15 cases where minimal hydronephrosis was detected in 14, moderate in 16 and severe in 21 cases. In 31 cases, stones were extracted by basket catheter and pneumatic lithotripter was used in 35 cases. Initial ureteral balloon dilatation was performed to 5 cases. Double J (DJ) catheter was inserted in 36 patients. In 2 patients postoperative high fever occurred and hospitalization