

USING TAMSULOSIN FOR DISTAL URETERAL STONE CLEARANCE WITH OR WITHOUT SHOCK WAVE LITHOTRIPSY

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OBJECTIVES:

The aim of the present study is to evaluate whether there is a significance of using alpha-1-blocker (Tamsulosin) on stone clearance in patients with ureteral stones who underwent either shock wave lithotripsy (SWL), or were followed up with standard hydration and anti-inflammatory treatment. The Alpha-1 blocker action to the alpha-1 receptor that is located in muscular cell in ureteral wall bladder wall and uretral wall that are relaxing effect and favorised to expulsion the stones. Ultrasound wave lithotripsy using the high energy wave focused for disintegrated the urinary calculi without tisular lesion. In this study I use Siemens Lithostat lithotritor with two focalizer system-radiologic and ultrasonic.

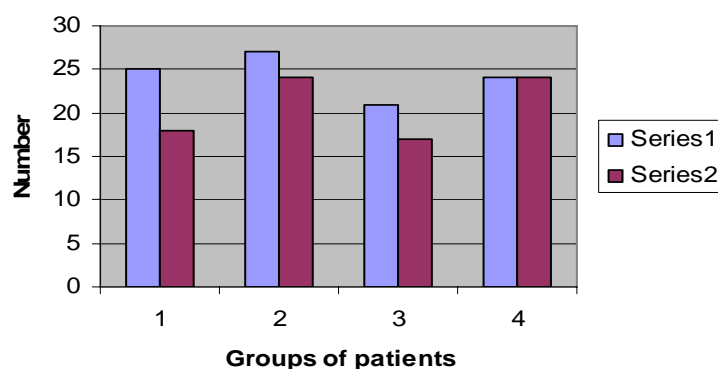
Key words:

alpha-1-blocker, Tamsulosin, ureteral calculi, shock wave lithotripsy

1. MATERIAL and METHODS

In the present study, I investigated 97 patients-61 men and 36 women-who had distal ureteral stones. Patients were divided into the following groups: the first group consisted of 52 patients with stone less than 6 mm (range 2-6mm, on average 4,1+/-0,06mm) and the second group consisted of 45 patients with stone greater than 6mm (range 6-15mm, on average 8,9+/-0,14mm) who underwent SWL. The first group were randomly divided into two subgroups: patients of subgroup A (n=25) were followed up with standard regime of management: oral hydratatin and anti-inflammatory treatment; patients of subgroup B (n=27) were received Tamsulosin 0,4mg daily in addition to the standard gegime. The second group consisted of 45 patients with stones greater than 6mm who underwent SWL were randomly divided into two subgroups: those who did not-C subgroups (n=21)-and those who did receive Tamsulosin 0,4mg daily-subgroup D (n=24). Weekly all patients were reevaluated with plain abdominal X-rays and renal ultrasonography. Duration of investigation was 28 day or until expulsion of the stones.

Stone-free rate



2. RESULTS

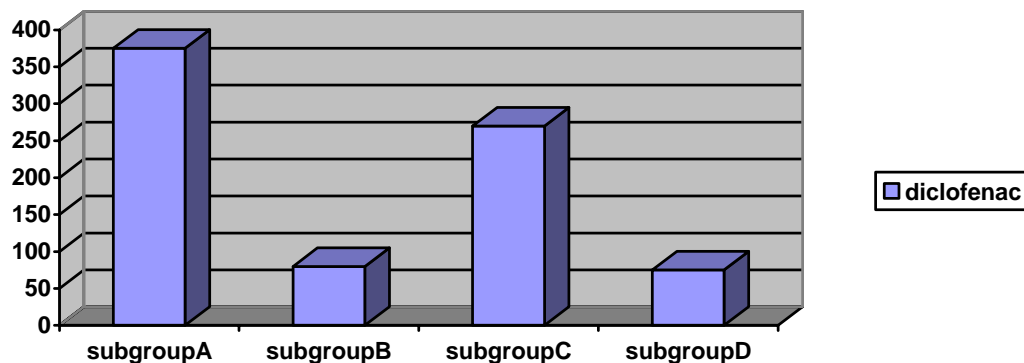
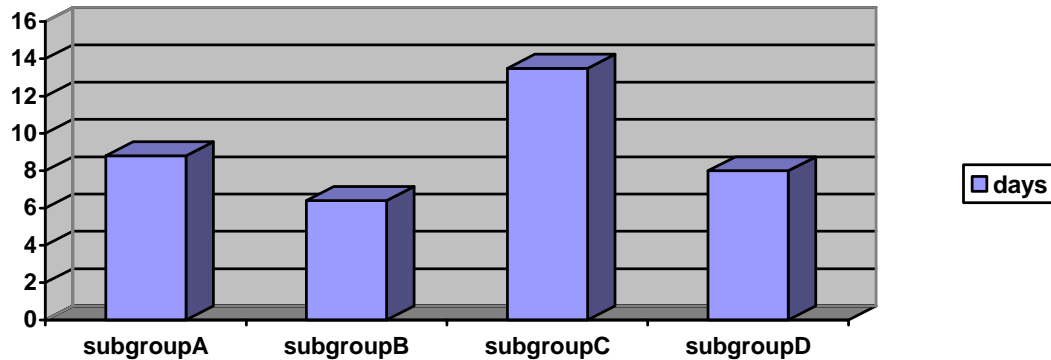
Of the 97 patients 83 (85,5%) become stone -free. The stone -free rate was: subgroup A 18 patients (72%), B 24 patients (88,9%), C 17 patients (80,9%) and D 24 patients (100%).

The best results were achieved in those who underwent SWL and additionally took Tamsulosin (subgroup D). The differences between the stone-free rates for subgroup C versus D (p=0,008) were statistically significant but subgroup B versus A (p=0,23) were statistically

insignificant. The duration of expulsion of stones was on average: 8,8 days subgroup A, 6,4 days B, 13,5 days C and 8 days D.

3. MEDIUM TIME IN DAY UNTIL EXPUSION OF STONES

Differences between subgroup A and B ($p < 0,001$), were statistically significant, but C and D ($p > 0,05$) were statistically insignificant. The mean anti-inflammatory consumption (diclofenac 50mg) during the treatment period was: 375mg subgroup A, 80mg B, 270mg C and 75mg D. Difference between subgroup A and B ($p < 0,05$), C and D ($p < 0,05$) were statistically significant.



4. CONCLUSIONS

The results of the present study demonstrate a positive effect of using Tamsulosin in addition to the standard regime in shortening the time necessary for expulsion of the ureteral calculi also when combined with SWL. Also it was evident that using of Tamsulosin accompanied with less painful condition and reduced the consumption of anti-inflammatory.

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