Role of Tamsulosin as Medical Expulsive Therapy for Proximal Ureteral Calculi: A Randomized Controlled Study

Introduction and Objective: To assess the efficacy and safety of tamsulosin 0.4 mg on the treatment of proximal ureteral calculi size 4-10 mm.
Materials and Methods: Forty-two patients presenting with single radio-opaque proximal ureteral stone sized 4-10 mm were randomized into two groups. Group I (control group, N : 21) patients received oral sodium diclofenac 50 mg twice a day for 10 days, Group II (treated group, N : 21) patients additionally received tamsulosin 0.4 mg/day for 28 days. All patients received diclofenac 75 mg intramuscular when developed pain during the treatment. At 2 and 4 week of the study; stone expulsion rate, stone relocations rate, colic episode and additional treatment were compared between both groups.
Results: At week 2, spontaneous passage and stone relocation was found in 9.5%, 28.57% and 9.5%, 47.6% of control group and treated group, respectively. At week 4, stone passage and stone relocation was 9.5% and 28.57% of control group; 19% and 52.38% of treated group, respectively. Overall stone passage and stone relocation at 4 week was significant different between both groups (61.90% in treated group, 28.57% of control group, p=0.03).Three patients of Group I and four patients of Group II need intramuscular diclofenac injection during the study. All patients tolerate the medication very well without side effect.
Conclusions: Tamsulosin 0.4 mg as medical expulsive therapy (MET) can facilitate the overall stone passage and stone relocation of proximal ureteral stone size 4-10 mm. The advantage of this effect is met for urologists in routine practical management.