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Efficacy of Tamsulosin in the management of ureteral stones: A randomized controlled study

M.A.H. Aly Freeg¹, L.J. John², J. Sreedharan³

¹ Department of Urology, GMC Hospital, Ajman, United Arab Emirates

² Department of Pharmacology, Gulf Medical University, Ajman, United Arab Emirates

³ Research Division, Gulf Medical University, Ajman, United Arab Emirates

Introduction: Urolithiasis is a growing problem in the Gulf region including the UAE. Medical expulsive therapy with tamsulosin a selective alpha 1A/1D blocker have shown to be effective in distal ureteral calculi, in terms of stone expulsion and control of ureteral colic. Recent randomized trials have shown negative results on stone expulsion rate with tamsulosin. We compared the mean time for stone expulsion and control of ureteric colic in patients with lower ureteric stones receiving tamsulosin and those only on analgesics.

Methods: After the approval from the Ethics committee a Randomized controlled single center study was carried out in Ajman, UAE. All adult patients attending Urology OPD with ureteral stones <10mm were included. After obtaining the informed consent, patients were randomly recruited into two groups; Group-1: Tamsulosin and/or analgesic; Group-2: analgesic if needed. At the end of treatment (3weeks) or spontaneous passage of calculus, X-ray KUB, US and/or CT scan were done. Time to stone expulsion, number of pain episodes and total dose of analgesic were recorded. SPSS version 19 was used for data analysis. Chi-square test and t- test was used to compare the groups.

Results: 100 patients each were recruited in both the groups. The baseline characteristics of both the patients were similar. The mean age of the patients was 40 with SD of 8 years. Group 1 patients receiving tamsulosin showed greater improvement with regards to stone expulsion rate. The mean time to stone expulsion, mean number of pain episodes, mean dose of analgesics were lower in Group 1 which was statistically significant ($p<0.01$) in comparison to group 2 patients receiving only analgesics.

Conclusion: Tamsulosin is a good medical expulsive therapy in cases of uncomplicated distal ureteral stones of size<10mm as it increases stone expulsion rate, decreases occurrence of acute attacks and the requirement for analgesics.

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