Alfuzosin Treatment Improves The Rate and Time for Stone Expulsion in Patients with Distal Uretral Stones: A Prospective Randomized Controlled Study

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Abstract

Objective: To evaluate the safety and efficacy of alfuzosin treatment on rate and time of stone expulsion in patients with uncomplicated distal ureteral stones.

Patients and Methods: Prospective, randomized, open-label, controlled study. Patients > 18 years presenting to the outpatient clinic with radio-opaque stones located in the distal third of the ureter and of size ≤ 10 mm were included. A total of 54 patients were randomly assigned to either; Control group (n=26); received standard of care management (oral hydration and diclofenac 75 mg IM on demand), or alfuzosin group (n= 28); received alfuzosin SR 5 mg twice daily in addition to standard of care management. Follow up was performed on a weekly basis through office visits as well as through telephone calls twice weekly for 4 weeks or until stone expulsion. Patients were assessed for stone passage rate and time and monitored for occurrence of adverse drug events, complications, number of pain episodes, analgesic consumption and number of hospital revisits.

Results: Stone expulsion rate was higher in the alfuzosin arm compared to the control arm (53.6% vs. 26.9%, p=0.04). Median stone passage time was significantly lower in the alfuzosin group versus the control (9 vs. 19 days, p=0.006). Ureteral sepsis, uncontrollable pain and hospitalization readmissions were reported in the control group only. No difference was observed between both groups in terms of number of pain episodes, pain scores or analgesic consumption. Alfuzosin therapy was tolerable with only minor adverse effects.

Conclusion: Alfuzosin is safe and effective in increasing stone expulsion rates and shortening stone passage times for distal ureteral stones.

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