



Paper 6

Comparative study between silodosin, tamsulosin, silodosin plus tadalafil, and tamsulosin plus tadalafil as a medical expulsive therapy for lower ureteral stones: a prospective randomized trial

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Abstract

Purpose : To examine the safety and efficiency of a single-drug therapy with silodosin or tamsulosin versus combined therapy with silodosin plus tadalafil and tamsulosin plus tadalafil as a medical expulsive therapy (MET) for lower ureteral stones.

Methods : This research was a prospective randomized clinical trial carried out at Fayoum University Hospital, Egypt, over one year. Patients with lower ureteral stones (5–10 mm) were randomly allocated into one of four treatment groups. Group A received silodosin 8 mg per day; Group B received tamsulosin 0.4 mg per day; Group C received silodosin 8 mg plus tadalafil 5 mg daily, and Group D received tamsulosin 0.4 mg plus tadalafil 5 mg daily. Treatment was prescribed for up to 4 weeks. The study outcomes were the stone expulsion rate, stone expulsion time, the amount of analgesics used, the frequency of pain episodes, hospital visits, and any treatment-related adverse effects.

Results : One hundred eighty patients who fulfilled the inclusion criteria completed the study. Group C had a significantly elevated stone expulsion rate (91.1%) compared to Group A (57.8%) and Group B (71.1%) [$P = 0.015$, $P < 0.001$, respectively]. Group D had a significantly elevated stone expulsion rate (86.7%) compared to Group B (57.8%) [$P = 0.002$] and higher than Group A (71.1%). Group C and Group D had significantly less stone expulsion time, analgesic needs, and episodes of renal colic, and fewer hospital visits than Group A and Group B. No significant differences were found in adverse effects like orthostatic hypotension, dizziness, backache, headache, myalgia, and nausea between the patient groups.

Conclusion : Combining silodosin with tadalafil and tamsulosin with tadalafil was more efficient as MET for lower ureteric stones than a single treatment with silodosin or tamsulosin.

Keywords Lower ureteral stones ,Silodosin ,Tamsulosin ,Tadalafil ,MET

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