

Combination of Anticholinergics (Tolterodine) and Selective Alpha-Blocker (Tamsulosin) to Improve the Urinary Symptoms Associated with Indwelling Double J Ureteral Stent

Introduction and Objective: We conducted a prospective placebo controlled study comparing the effect of tamsulosin, tolterodine or combination of both drugs versus placebo in improving the urinary symptoms associated with indwelling double J ureteral stent after ureteroscopy.

Materials and Methods: There were 80 patients (who underwent ureteral stent placement) with a mean age 33.4±9.9 years enrolled prospectively into 4 groups. Group A (n=20), patients received 0.4 mg tamsulosin once per day. Group B (n=20), patients received 4mg tolterodine once per day. Group C (n=20), patients received tamsulosin 0.4 mg +tolterodine 4 mg once per day. Group D (n=20), patients received analgesics on demand (controlled group). For all patients, storage symptoms; voiding symptoms and international prostatic symptoms scores (IPSS) were compared at base line (day 1), day 7 and day 14, and the results were compared between the four groups.

Results: We found that the baseline scores for storage; voiding and IPSS did not differ significantly in the 4 groups ($p>0.05$). At day 7, the same scores were significantly lower in group A, B and C in comparison to group D (placebo). The improvement in the symptoms was better in group C in comparison to group A or B alone. At day 14, only the storage symptoms and IPSS were still significantly lower in group A,B,C than placebo, and the effect was evident in group C in comparison to A or B alone. No significant difference was noted between group A, B at day 7 or day 14.

Conclusion: The results of this study suggest that combination of alpha blockers (tamsulosin) and anticholinergics (tolterodine) has positive effect in improving the urinary symptoms associated with indwelling double J ureteral stent. The combination of both drugs is better than either drug alone.