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EFFECTS OF TAMSULOSIN AND TOLTERODINE EXTENDED RELEASE ON LOWER URINARY TRACT SYMPTOMS DEVELOPED FROM URETERAL STENT: PROSPECTIVE STUDY

Hypothesis / aims of study

To evaluate the effect of tamsulosin and tolterodine extended release (ER) in improving symptoms and pain in patients with indwelling double pigtail ureteral stent.

Study design, materials and methods.

A total of 74 patients, with insertion of a double pigtail ureteral stent after ureteroscopic stone removal, were prospectively randomized into four groups. In group 1, 18 patients were enrolled and they received prophylactic antibiotics for 3 days. Group 2 included 19 patients who received prophylactic antibiotics for 3 days and 0.2mg of tamsulosin once daily for 1 week, group 3 consisted of 18 patients who received prophylactic antibiotics for 3 days, 4mg of tolterodine ER once daily for 1 week and group 4 consisted of 19 patients who received prophylactic antibiotics for 3 days, 0.2mg of tamsulosin once daily and 4mg of tolterodine ER once daily for the same period. All patients completed 10cm linear visual analogue scale (VAS) for evaluation of pain, 2 day voiding diary and irritative symptom domain of International Prostate Symptom Scale (IPSS) before and after medication.

Results

The mean age was 51.8±13.0 in Group 1, 44.1±15.3 in Group 2, 41.7±11.5 in group 3 and 47.6± 9.4 in group 4 (p=0.093). Before starting medication, The mean frequency, mean urgency, irritative symptom domain of IPSS and VAS score were 9.3±1.4, 1.4±0.9, 5.6±1.3 and 6.7±1.1 in group 1, 9.6±1.8, 1.5±1.1, 6.5±2.0 and 6.7±1.3 in group 2, 9.4±1.8, 1.4±0.8, 6.2±1.8 and 6.4±1.9 in group 3, and 9.6±2.3, 1.5±0.7, 6.2±2.3 and 6.4±1.9 in group 4. There were no significant differences in each group statistically.

Interpretation of results

Compared to group 1, improvement of frequency and urgency after medication were significant in group 2 (24.2%, 21.4%), group 3 (30.0%, 69.2%) and 4 (30.1%, 75.9%) (P<0.05). And irritative symptom domain of IPSS and VAS score were improved in group 2 (48.3%, 36.2%), group 3 (52.3%, 37.1%) and 4 (76.1%, 62.3%) (P<0.05). Compared to group 2 and 3, improvement of urgency of group 3 was better than group 2 statistically (P<0.05).

Compared to group 4, improvement of irritative domain of IPSS and VAS score of group 4 were better than group 2 and 3 (P<0.05) and improvement of urgency was better than group 3 (p<0.05).

Concluding message

Both Tamsulosin and tolterodine ER improved a subset of stent-related urinary symptoms and pains. Moreover, the combination of Tamsulosin and tolterodine ER is more effective than monotherapy.

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None

Is this a clinical trial?

No

What were the subjects in the study?

NONE