

STUDY ON ADHERENCE RATE FOR TOLTERODINE AND IMPROVEMENT OF THE RATE IN PATIENTS AGED 65 YEARS OR OLDER WITH OVERACTIVE BLADDER ASSOCIATED WITH BENIGN PROSTATIC HYPERTROPHY

Hypothesis / aims of study

I evaluated the adherence rate for tolterodine and the measures to improve the adherence rate in patients aged 65 years or older with overactive bladder (OAB) associated with benign prostatic hypertrophy (BPH).

Study design, materials and methods

I examined 200 patients with BPH associated with OAB who visited our hospital for 2 years or more and whose condition was stable with the oral administration of tamsulosin hydrochloride (Harnal D[®]; 0.2 mg in the morning; Tam) for 1.5 years or more and received an additional dose of tolterodine (Detrusitol[®]; 2 mg in the morning; Det) for the concurrent OAB symptom for 1 year or more. After confirming the medication adherence rate (without informing the patients) at the time of revisit to the hospital after obtaining written informed consent from the family members of the patients (spouse, 97%) at the time of prescribing an 8-week course from June 2010, the patients were randomized into the following 4 groups of 50 subjects each: (1) patients to undergo usual examination and tests and receive the normal 8-week course (control group); (2) patients to receive detailed medication instructions from the pharmacist of the dispensing pharmacy (out-of-hospital) to improve their medication compliance rate, as per our request; (3) patients who were urged to take the drug when nonadherence to medication was recognized at home by their family member who was briefed about the importance of medication adherence by a physician/staff; and (4) patients to be contacted by their attending physicians once/1 to 2 weeks during their non-hospital-visit days (without mentioning medication adherence). The medication adherence rates were compared among the 4 groups. Among the patients who gave consent to participate in this study, 90.0% (180/200) had concurrent controlled hypertension, orthopedic disease, hyperlipidemia, diabetes, or cerebrovascular disorder; the medications were of 3 to 12 types (median, 5.0), and the number of oral medications to be taken after breakfast were higher than those after lunch/dinner.

Results

The medication adherence rates before receiving instruction were 91.0% for Tam (182/200) and 65.0% for Det (130/200) (Tam vs Det, $P < 0.001$; Wilcoxon signed-rank test). The rates of adherence to Tam and Det after randomization were 90.0% and 62.0% ($P < 0.001$) in group 1, 94.0% and 70.0% ($P < 0.001$) in group 2, 92.0% and 60.0% ($P < 0.001$) in group 3, and 96.0% and 82.0% ($P = 0.008$) in group 4, respectively, thereby showing favorable adherence of Tam to Det in all the groups. No significant difference was noted in the adherence rates between Tam and Det in group 4, and no significant intergroup difference was recognized for Tam. In the adherence rates for Det, however, significant differences were observed between the group 4 and 1 ($P = 0.027$, Mann-Whitney *U*-test), between groups 4 and 2 ($P = 0.027$), and between groups 4 and 3 ($P = 0.016$). Sixty-three patients were nonadherent to Det, and the main factors were thirst for 58 patients and constipation for 5 patients. No significant intergroup difference was observed in age, number of oral medications, International Prostate Symptom Score (IPSS), IPSS quality of life (QOL), Overactive Bladder Symptom Score (OABSS), maximal urinary flow rate, or residual urine volume.

Interpretation of results

Although maintaining medication adherence at the time of disease treatment is important, the medication adherence rate in Japan is in an alarming state. Many drugs are prescribed for diseases diagnosed at other departments, which, along with medication timing, is the cause of reduced adherence rates. The measures to improve medication adherence rates include making sustained-release formulations, orally disintegrating tablets, and compound drugs. In case of anticholinergic agents, however, adverse reactions, which are the characteristic of the agents, result in reduced adherence rates.

Concluding message

The results of this study suggest that establishing favorable relationship between attending physicians and patients can affect the medication adherence rates, suggesting that it is important for the physicians to have a proactive approach.

Disclosures

Funding: no funding **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Institutional Review Board of Kobe Medical Center **Helsinki:** Yes **Informed Consent:** Yes