

INVESTIGATION OF THE EARLY EFFECTS OF (1-BLOCKERS IN A COMPARATIVE STUDY FOCUSING ON PATIENT EVALUATION

Hypothesis / aims of study

Benign prostatic hyperplasia (BPH) is a QOL-affecting disease, for which administration of treatment to improve patient QOL is of paramount importance. The aspect of "patient satisfaction" has recently attracted substantial attention as a measure of evaluating treatment from the patient's viewpoint, and reports on patient discomfort and satisfaction have been published with increasing frequency¹. Although a variety of factors such as efficacy, safety, and patient compliance with prescribed regimen may be linked to patient satisfaction, the early effects of a drug that contribute to immediate improvement of bothersome symptoms may be a key efficacy-related factor. Among α 1-blockers, which are the first-line pharmacotherapies for BPH, only a few studies have compared silodosin, which was launched into the market a several years ago, with tamsulosin hydrochloride, which has long been widely prescribed in Japan, and in particular, no studies comparing early effects of these two drugs were found. Under these circumstances, the present study was performed with an aim of evaluating "patient satisfaction" and "early usefulness."

Study design, materials and methods

Among previously untreated BPH patients who visited nine medical institutions, which are members of the Kumamoto research society for lower urinary tract function, between February and October 2009, 109 patients who satisfied the eligibility criteria stated below were included in the present study. The patients were randomly assigned to one of the following two groups: a silodosin group (treated at 4 mg per dose, twice daily, hereinafter to be referred to as the Silo group) and a tamsulosin group (treated at 0.2 mg per dose, once daily, the Tam group). Eligibility criteria were as follows: (1) Those who gave their informed consent to participate in this study; (2) outpatients at the age of 50 years or older; (3) those who showed a total International Prostate Symptom Score (I-PSS) of 8 or greater and in addition had a QOL score of 3 or higher; (4) those who had never been treated with an α 1-blocker or had not received an α 1-blocker for at least 4 weeks; and (5) those who were judged by their attending physicians to be eligible for participation in the study.

Before and one week after the treatment, evaluation was performed by the I-PSS, Overactive Bladder Symptom Score (OABSS), and QOL rating scale. On their first visit to the medical institutions, the patients were given a report form and instructed to record on the form when they felt the effectiveness of the prescribed therapy or whether the therapy was effective, with which data the time of onset of effects was prospectively investigated. On their first visits, they also received a questionnaire regarding whether they wanted to continue the prescribed therapy, with which data their intention of continuing the treatment was evaluated one week after the treatment.

Results

The two groups did not differ in patient demographics. Comparison between before and one week after the treatment demonstrated significant improvement in I-PSS total score, QOL score, I-PSS voiding symptom score, I-PSS storage symptom score, and I-PSS post-void symptom score in both groups. OABSS significantly improved in the Tam group only. Between-group comparison revealed that for I-PSS total score, QOL score, OABSS, and I-PSS storage symptom score, the change from baseline was significantly greater in the Tam group than in the Silo group. For the I-PSS symptoms, the mean number of post-treatment days until the time when the patients actually felt the effectiveness of the prescribed therapy was 3.1 ± 1.5 days for the Silo group and 2.6 ± 1.5 days for the Tam group. The percentage of patients who responded that the prescribed therapy was not effective was significantly greater in the Silo group (31.5%) than in the Tam group (16.0%). The questionnaire on patients one week after the treatment indicated that a significantly greater percentage of patients in the Tam group (70.0%) than in the Silo group (40.7%) desired to continue the prescribed therapy. The percentage of patients who wanted to change or discontinue the prescribed therapy was significantly greater in the Silo group (29.6%) than in the Tam group (4.0%). On the other hand, 29.6% and 26.0% of patients in the Silo and Tam groups, respectively, responded that they were not able to make a decision on this matter, with no significant difference between the two groups. The incidence of adverse drug reactions (ADRs) was significantly higher in the Silo group than in the Tam group. In the Silo group, 16 occurrences of ADRs were noted in 13 patients (23.6%) and predominant symptoms included 2 occurrences of gastrointestinal symptoms (3.6%), 2 occurrences of diarrhea (3.6%), 2 occurrences of ejaculation disorder (3.6%), and 2 occurrences of dizziness (3.6%). In the Tam group, 2 occurrences of ADRs were noted in 2 patients (4.0%), consisting of one patient (2.0%) who had gastrointestinal symptoms and one (2.0%) with diarrhea.

Interpretation of results

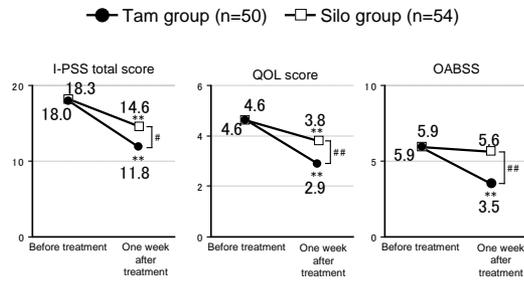
The present study confirmed significantly greater improvement in the Tam group than in the Silo group for I-PSS, QOL score, OABSS, and I-PSS storage symptom score. Since it has been reported that storage symptoms (OAB symptoms) occur less frequently than voiding symptoms but result in greater degree of discomfort², the differences noted in improvement of I-PSS total score and QOL score between the two groups may be explained by the differences in the effects on storage symptoms. Significantly more patients in the Tam group desired to continue the prescribed therapy, which may have been related to the greater efficacy and safety of Tam.

Concluding message

The early effects of both silodosin and tamsulosin were confirmed, and tamsulosin was superior to silodosin in the effectiveness in improving storage symptoms (OAB symptoms), the time of onset of effects, safety, and improvement in QOL. A significantly greater number of patients in the Tam group than in the Silo group expressed their desire to continue the prescribed therapy, suggesting that from the viewpoint of patient satisfaction also, tamsulosin is superior to silodosin.

Table1

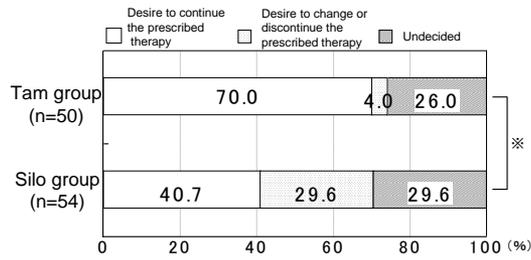
Evaluations with different symptom rating scales



Mean, * p<0.01 (comparison between before and one week after treatment: Wilcoxon's signed-ranks test)
p<0.05, ## p<0.01 (Silo group vs. Tam group: Mann-Whitney test)

Table2

Desire to continue the prescribed therapy (by questionnaire one week later)



※ "Desire to continue" and "Desire to change or discontinue": p<0.01 (chi-square test)

References

- Ozono S, Watanabe T, and Kageyama S. Comparative crossover study of tamsulosin and silodosin using patient satisfaction as indicator. Japanese Journal of Urological Surgery 21: 1507-1512, 2008
- Irwin DE, Milsom I, Hunskaar S, et al. Population-based survey of urinary incontinence, overactive bladder, and other lower urinary tract symptoms in five countries: results of the EPIC study. Eur Urol 50: 1306 – 1315, 2006

Specify source of funding or grant	none
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Ethics Committee of the Kumamoto research society for lower urinary tract function
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes