

FREQUENCY AND BOTHER OF POST-MICTURITION SYMPTOMS IN PATIENTS WITH BENIGN PROSTATIC HYPERPLASIA, AND THEIR FLUCTUATION BY TAMSULOSIN TREATMENT

Aims of study

In patients with benign prostatic hyperplasia (BPH), the frequency, severity, and bother of post-micturition symptoms (feeling of incomplete emptying [FIE] and post-micturition dribble [PMD]), as well as associations between these symptoms and objective findings were investigated. The effect of tamsulosin hydrochloride in improving post-micturition symptoms was also evaluated.

Study design

In BPH patients with lower urinary tract symptoms, the frequency of symptoms was evaluated with a modified version of International Prostate Symptoms Score (IPSS), which consists of the original seven IPSS questions and an additional question on PMD. To measure bother of the symptoms, a bother questionnaire was prepared, in which each symptom of the modified IPSS was rated with a 5-grade face scale for bother. Further evaluation was made with the Overactive Bladder Symptom Score (OABSS) and the QOL questionnaire (BPH Impact Index [BII]). The severity of FIE and PMD was also evaluated by subjective scoring. For objective findings, urinary flow rate and residual urine volume were measured, and correlation between post micturition symptoms and other parameters was investigated. Changes of the parameters after tamsulosin treatment (at 0.2 mg/day for 12 weeks) were evaluated.

Results

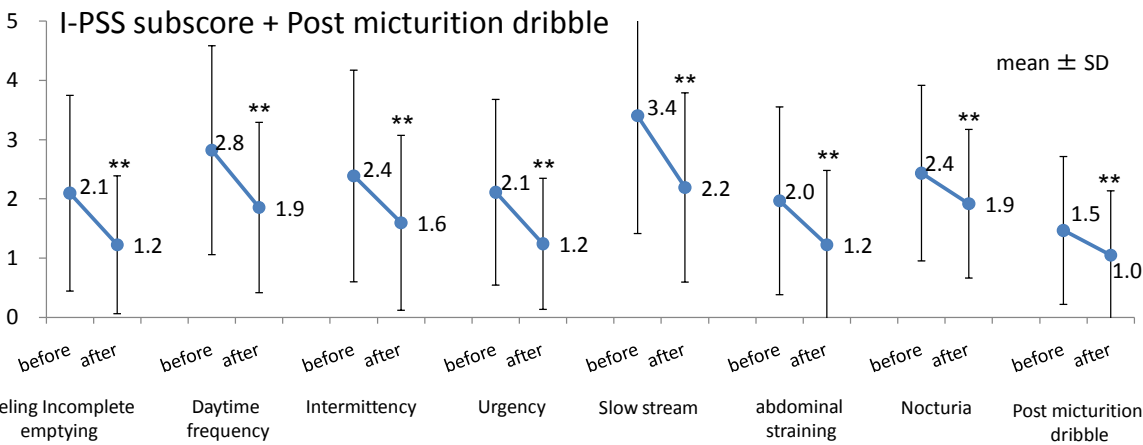
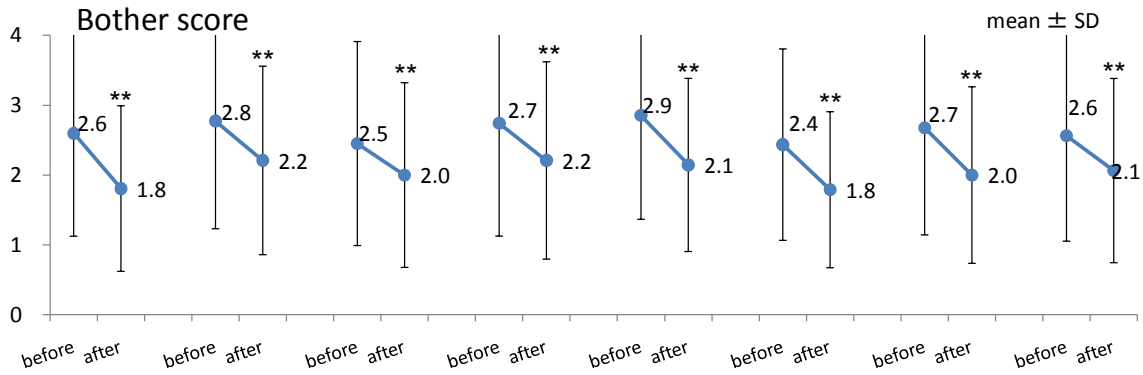
Among 68 patients (average age 67.2 years) included in this study, 94.1 % of the patients had post micturition symptoms, FIE and/or PMD; 83.8% had FIE and 80.9% had PMD, respectively. FIE showed a positive correlation with scores of voiding symptoms ($r=0.5996$, $p<0.05$), whereas a positive correlation between IE and scores of storage symptoms was weak ($r=0.2936$, $p<0.05$). PMD showed a weak positive correlation with scores of voiding symptoms ($r=0.34$, $p<0.05$). Among the IPSS questions, scores for PMD were the lowest (2.0 ± 1.7), and scores for FIE were also slightly low (2.1 ± 1.7). Evaluation of bother scoring revealed that the bother scores of these two post-micturition symptoms were almost comparable to those of the other symptoms ($2.4-2.9$). FIE correlated with the total scores of BII and scores of each question on BII, whereas PMD did not provide correlation except for physical discomfort ($r=0.2805$, $p<0.05$). Neither FIE nor PMD correlated with uroflowmetry. In 62 patients who were evaluable both before and after tamsulosin treatment, the treatment improved severity and bother of all symptoms of BPH, including post-micturition symptoms.

Interpretation of results

Post-micturition symptoms are highly prevalent in BPH patients, and their frequency may be associated with the frequency of voiding symptoms. Although the frequency of post-micturition symptoms is lower than other symptoms, the extent of bother that patients feel for post-micturition symptoms is similar to that for the other symptoms. FIE correlates with BII, suggesting the impact on QOL. Tamsulosin treatment improved severity and bother of post micturition symptoms as well as voiding and storage symptoms.

Concluding message

Post-micturition symptoms occur at a high incidence among patients with BPH and are associated with voiding symptoms. The frequency of these postmicturition symptoms is relatively lower than other symptoms, but the symptoms cause great bother. Tamsulosin improves the frequency, severity, and bother of post-micturition symptoms.



Comparison of scores for frequency and bother of each symptom between pre- and post-treatment by tamsulosin.
 **p<0.01 Wilcoxon's signed rank test.

Specify source of funding or grant	none
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No
Is this a Randomised Controlled Trial (RCT)?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Nagoya University Ethics Committee
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes