

THERAPEUTIC IMPACT OF ALPHA-ADRENOCEPTOR ANTAGONIST ON QUALITY OF LIFE IN SPECIAL REFERENCE TO THE MOST SIGNIFICANT SYMPTOM FOR PATIENT TO WANT TO BE TREATEDHypothesis / aims of study

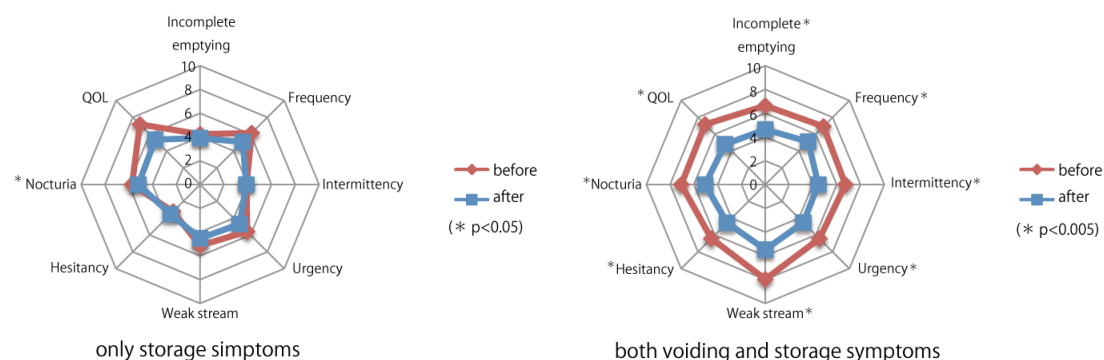
Lower urinary tract symptoms (LUTS) compatible with benign prostatic hyperplasia (BPH) cause significant bother, anxiety or morbidity in elderly men. The recent trend in treatment for male LUTS has been directed toward the alleviation of bother in both storage and voiding symptoms with prevention of disease progression to achieve a better quality of life (QOL) in the long-term. Alpha-adrenoceptor antagonists are the safe first-line treatment for older men with LUTS, and the severity and/or frequency of LUTS is most commonly quantified using the 7 symptom questions of the International Prostate Symptom Score (IPSS) (1). Although a high total score on the IPSS is likely to have great impact on QOL in patients with LUTS, the most severe symptom of the 7 items in the IPSS may not necessarily match the most significant symptom that patients want to be treated. The novel visual analogue scale measure (VAS) of QOL specific to each of the 7 items on the IPSS has a significant impact on identifying the patient's chief complaint as well as on the patient specific bother/satisfaction of each symptom of the IPSS (2). In this study, we evaluated the therapeutic impact of alpha-adrenoceptor antagonist on QOL in special reference to the most significant symptom for patient to want to be treated, with concomitant use of IPSS and the VAS questionnaires.

Study design, materials and methods

Seventy-seven male patients complaining of LUTS received alpha-adrenoceptor antagonists (tamsulosin hydrochloride or naftopidil) for 12 weeks. Before and after treatment the patients were asked to complete the IPSS questionnaire with IPSS-QOL score and VAS questionnaires to assess bother or satisfaction regarding patient QOL specific to each of the 7 items on the IPSS. The VAS questionnaire (2) used in this study was a 10 cm line ranging from delighted at the left to terrible at the right to determine patient bother or satisfaction specific to each of the 7 questions on the conventional IPSS. Logistic regression analysis was used to identify the best predictor of pre- or post-treatment IPSS-QOL score, representing the patient's pre- or post-treatment bother. Based on the VAS measure, rate of 7-10 cm was defined as "severe bother" (desired to be treated), rate of 3-7 cm as "moderate bother", and rate of 0-3 cm as "mild (acceptable) bother". We classified the patients into a group of [V] who suffer from mainly voiding symptoms when rate of 7-10 cm was seen in only voiding symptoms, into a group of [S] who suffer from mainly storage symptoms when rate of 7-10 cm was seen in only storage symptom, and into a group of [V+S] who suffer from both voiding and storage symptoms when rate of 7-10 cm was seen in both voiding and storage symptoms.

Results

There were statistically significant improvements in every 7 score of IPSS as well as every 7 rate of VAS measure ($P<0.05$). Before treatment, among the 14 items of the 7 IPSS scores and 7 VAS measures, multiple stepwise linear regression analysis identified that the best predictor of pre-treatment patient's IPSS-QOL was VAS nocturia ($F=6.8$, $p=0.014$), followed by VAS incomplete emptying ($F=5.1$, $p=0.018$). After treatment, multiple regression analysis revealed that only VAS nocturia ($F=8.7$, $p=0.0045$) remained as a significant predictor of post-treatment patient's IPSS-QOL. In the subgroups of [V+S] the alpha-adrenoceptor antagonists significantly improved all 7 VAS measures ($p<0.001$), while in the subgroups of [S] the alpha-adrenoceptor antagonists was not able to improve the any VAS measures except for slight improvement of nocturia ($p=0.02$), resulting in no significant improvement in patient's total QOL (Figure).



Interpretation of results

The recent trend in treatment for male LUTS could be that an alpha-adrenoceptor antagonist should be administered first, and if monotherapy of alpha-adrenoceptor antagonist is ineffective, an anti-cholinergic agent could be added. This study revealed efficacy of alpha-adrenoceptor antagonist successfully improved the IPSS-QOL score with improvement of every 7 symptom score including storage symptom. However, in consideration of the potential further treatment in patients suffering from storage symptom, this study suggested that the alpha-adrenoceptor antagonist failed to lead the alleviation of the patient's bother in storage symptoms, especially in subgroups of patients suffering mainly from storage symptom. Although a higher score on the IPSS is likely to have great impact on QOL, the decrease of each score in the IPSS may not necessarily lead the significant improvement of patient's individual bother in special reference to the individual specific symptom that the patient wants to be treated.

Concluding message

In patients suffering from male LUTS, alpha-adrenoceptor antagonists were effective in improving all 7 scores of IPSS and total IPSS, leading to a significant improvement in every 7 VAS measure specific to each symptom of IPSS questionnaire. Interestingly, however, although the IPSS scores of storage symptom was decreased, assessment of the VAS questionnaire with regard to individual patient's bother specific to each symptom of LUTS revealed that alpha-adrenoceptor antagonists is not effective to improve QOL in the subgroup of patients who mainly suffer from storage symptom. These patient's demands of further treatment for the remained bother were well documented by assessment to use VAS questionnaire to identify bother specific each symptom of LUTS.

Reference

- (1) J Urol, **148**: 1549, 1992
- (2) J Urol, **176**: 665, 2006

References

1. J Urol, 148: 1549, 1992
2. J Urol, 176: 665, 2006

Specify source of funding or grant	NONE
Is this a clinical trial?	Yes
Is this study registered in a public clinical trials registry?	No

<i>Is this a Randomised Controlled Trial (RCT)?</i>	Yes
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	Yes
<i>Specify Name of Ethics Committee</i>	KPUM Ethics Committee
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes