

## VISUAL ANALOGUE SCALE QUESTIONNAIRE TO ASSESS QOL SPECIFIC TO EACH SYMPTOM OF IPSS IDENTIFIED THE SYMPTOM TO BE TREATED FOR LEADING PATIENT SATISFACTION

### Hypothesis / aims of study

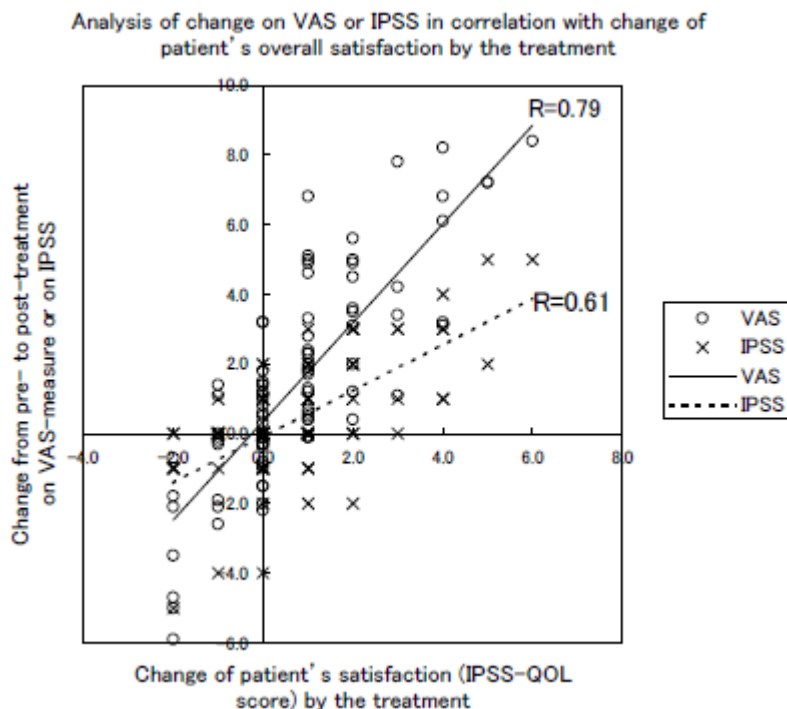
The most severe symptom of the 7 items in International Prostate Symptom Score (IPSS) may not necessarily match to the most significant symptom that patients want to be treated. For instance, even one or two episodes of nocturia could impact most significantly on QOL for a patient, in spite of his complaining of higher scores in other symptoms of IPSS. Recently we developed a novel Visual Analogue Scale (VAS) measure of the patient's quality of life (QOL) specific to each of the 7 items on the IPSS (1). The VAS-measure had a significant impact on identifying the patient's chief complaint. An effective treatment to improve the symptom, which impact most on QOL, likely lead the greatest satisfaction of patients. The aim of this study is to analyze the correlation between the patient's perception of successful treatment versus the changes from pre- to post-treatment measures in each of the 7 items on either IPSS or VAS-measure.

### Study design, materials and methods

The VAS-measure used in this study was a 10-cm line ranging from delighted (at the left end of the line) to terrible (at the right end of the line) in order to ask patients' bother or satisfaction specific to each of the 7 questions in the conventional IPSS. The VAS questionnaire included original face scales that showed a series of faces graded in increasing intensity between "delighted" (smiling face) to "terrible" (crying face) in order to match patients' perceptions with appropriate pictures of facial expressions along the VAS. Patients (n=94) (mean age, 71) with LUTS undergoing oral medication using an alpha-blocker and/or anti-cholinergic agent were asked to fill out both IPSS and VAS questionnaires, twice at pre- and post- treatment with the time interval at least 2 weeks. For statistical analysis, logistic regression analysis and multiple regression analysis by the SPSS/Win (version 8.0) were used.

### Results

In terms of the patient's chief complaint symptom, the change on VAS-measure from pre- to post-treatment revealed significantly greater coefficient correlation ( $R=0.79$ ) with patient's overall satisfaction by the treatment, compared to the coefficient correlation ( $R=0.61$ ) on the change in severity of IPSS (Figure). Comparing the coefficient of correlation on each 7 items with the patient's overall satisfaction between VAS-measure versus IPSS, VAS-measure were superior to IPSS in 5 of the 7 items; incomplete emptying (0.54 vs. 0.49), frequency (0.49 vs. 0.67), intermittency (0.52 vs. 0.47), urgency (0.45 vs. 0.51), weak stream (0.50 vs. 0.57), hesitancy (0.25 vs. 0.29), and nocturia (0.36 vs. 0.57), respectively. In order to define the best predictor of the patient's overall satisfaction by the treatment among the total 14 items of either 7 items of the VAS-measure or the 7 items of the IPSS, multiple stepwise linear regression analysis revealed that the best predictor was IPSS-incomplete emptying (F-value: 6.0,  $P=0.02$ ), followed by VAS-week stream (F-value: 4.8,  $P=0.03$ ), and VAS-nocturia (F-value: 4.0,  $P=0.04$ ).



### Interpretation of results

Although the "severe" total score of IPSS is well known to have great impact on the QOL of patients, individual patient bother or satisfaction was not be necessarily correlated with the severest symptom score of the 7 items in IPSS. Although reduction of severity in IPSS-score is a widely accepted key for judging the success of various treatments, we found the importance of identifying and treating the symptom with the most impact on a patient's QOL.

Concluding message

Improvement of the symptoms associated with the chief complaint or with the most significant impact on the patient's QOL significantly affects the patient's perception of successful treatment. Use of VAS-measure of QOL specific to each symptom of IPSS, in addition to conventional IPSS, improves identifying the most significant symptom to be treated for leading patient satisfaction.

References

(1) J Urol 176:665. 2006

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**HUMAN SUBJECTS:** This study was approved by the Ethical committee board in Kyoto Prefectural University of Medicine and followed the Declaration of Helsinki Informed consent was not obtained from the patients.