

Prospective Evaluation of a New Visual Prostate Symptom Score (VPSS) versus the International Prostate Symptom Score (IPSS) to Assess Lower Urinary Tract Symptoms

Introduction and Objective The international prostate symptom score (IPSS) to assess lower urinary tract symptoms (LUTS) is time-consuming and requires a relatively high level of education to complete without physician assistance. We have developed a visual prostate symptom score (VPSS) which offers a non-verbal, pictographic assessment of the force of the patient's urinary stream (Q1), frequency (Q2), nocturia (Q3) and quality of life (Q4). The aim of this study was to compare the VPSS with the IPSS in the assessment of LUTS.

Materials and Methods Men referred to the Stricture Clinic of our hospital were evaluated with completion of the IPSS and VPSS (with physician assistance if required), maximum (Qmax) and average (Qave) uroflowmetry and urethral calibration. Men with stricture(s) were treated with urethral dilation or direct vision internal urethrotomy and were followed up 3-monthly. Ethical committee approval was obtained. Spearman rank correlation and Student's t-tests were used for statistical evaluation.

Results A total of 67 men were evaluated during 129 visits in the period March 2011 to March 2012. Their mean age was 49.7 (range 20.2-83.7) years, mean schooling was 7.6 (range 0-13) years. The mean time taken to complete the questionnaire at the first visit was 224 (80-550) seconds for the IPSS and 123 (45-300) seconds for the VPSS ($p<0.0001$), and at follow-up visits 142 (45-335) seconds for the IPSS and 91 (35-190) seconds for the VPSS ($p=0.025$). The following correlations were found:

	Correlation coefficient (r)	p-value
IPSS total vs VPSS total	0.808	$p<0.0001$
IPSS total vs Qmax	-0.232	$p=0.009$
VPSS total vs Qmax	-0.521	$p<0.0001$
IPSS total vs Qave	-0.590	$p<0.0001$
VPSS total vs Qave	-0.550	$p<0.0001$
IPSS Q5 (force of urinary stream) vs Qmax	-0.612	$p<0.0001$
VPSS Q1 (force of urinary stream) vs Qmax	-0.537	$p<0.0001$
VPSS Q2 (frequency) vs Qmax	-0.295	$p=0.0008$
VPSS Q3 (nocturia) vs Qmax	-0.327	$p=0.0002$
VPSS Q4 (quality of life) vs Qmax	-0.488	$p<0.0001$
Qmax vs stricture diameter	0.516	$p=0.0005$
IPSS total vs stricture diameter	-0.412	$p=0.006$
VPSS total vs stricture diameter	-0.516	$p=0.0004$
IPSS Q5 vs stricture diameter	-0.468	$p=0.0015$
VPSS Q1 vs stricture diameter	-0.433	$p=0.0042$

Conclusions: The VPSS correlates significantly with the IPSS, Qmax and urethral diameter in men with LUTS and takes significantly less time to complete. The VPSS pictogram on the force of the urinary stream correlates significantly with the corresponding IPSS question, Qmax and urethral diameter. The VPSS is quicker and easier to complete than the IPSS in men with limited education.