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LUT SYMPTOM QUESTIONNAIRES: HOW DO IPSS AND ICS MALE SF COMPARE?

Hypothesis / aims of study

The International Prostate Symptom Score (IPSS) is widely used in the assessment of men with benign prostate enlargement but has some drawbacks which the International Continence Society Short-Form Male Questionnaire (ICS SF) was developed to address, particularly by separating and expanding the storage component. In order to clarify similarities and differences in the usefulness of these two scores we have examined how they compare before and after endoscopic prostatectomy. In addition we examine whether the questionnaires or any of their domains were predictive of satisfactory patient-reported or urodynamic outcome following TURP.

Study design, materials and methods

A group of 179 men already selected for TURP were enrolled into the study. 171 (96%) men self-completed IPSS and ICS SF questionnaires immediately prior and 4 months following TURP. Total, voiding, and storage domain scores obtained from each questionnaire were compared using Pearson's co-efficient (R) with 1 representing perfect correlation. Successful patient-reported outcome from TURP was defined as IPSS quality of life score of 0, 1 or 2 at 4 months post surgery. Total scores together with storage and voiding domain scores were examined for accuracy of prediction of satisfactory patient-reported outcome by plotting receiver-operator characteristics (ROC) curves and calculating the area under the curve (AUC) in each case; with 1 representing perfect predictive accuracy and 0.5 representing chance (1).

In a subgroup of 132 (77%) men who underwent both pre and post operative non-invasive urodynamics using the penile cuff test (2) successful urodynamic outcome could be defined as movement into the not obstructed area of the non-invasive pressure-flow plot (3). The percentage change in total IPSS and ICS SF scores together with the change in storage and voiding domain scores were then compared according to urodynamic outcome using unpaired Student's T-test.

Results

We found excellent agreement between the total and voiding domain scores from the IPSS and ICS SF questionnaires both before and after TURP but a weaker relationship between storage domain scores (Table 1). Both total scores showed a similar degree of change following TURP.

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Table 1 Correlation of IPSS and ICS SF Questionnaires pre and post TURP

	VARIABLE	PEARSON'S R VALUE	P VALUE
PRE OP	TOTAL SCORE	0.740	<0.01
	VOIDING DOMAIN	0.848	<0.01
	STORAGE DOMAIN	0.382	<0.01
	QOL	0.513	<0.01
POST OP	TOTAL SCORE	0.820	<0.01
	VOIDING DOMAIN	0.726	<0.01
	STORAGE DOMAIN	0.588	<0.01
	QOL	0.733	<0.01
% CHANGE POST TURP		0.734	<0.01

Neither the IPSS or the ICS SF total scores predicted satisfactory patient-reported outcome following TURP and this was also the case for individual domain scores with AUC close to 0.5 in all cases (Table 2).

Table 2 Accuracy of prediction of satisfactory symptomatic outcome following TURP

DOMAIN	**Area under ROC curve**
IPSS voiding	0.57
IPSS storage	0.45
IPSS total	0.52
ICS SF voiding	0.58
ICS SF storage	0.42
ICS SF total	0.50

Similarly a satisfactory urodynamic outcome was not predicted by either questionnaire or their individual storage and voiding domains. The percentage change in the scores from pre to post TURP are shown in Table 3 and no statistically significant changes between those successfully disobstructed and those who were not was observed.

Table 3 Changes in symptom scores according to urodynamic outcome

	Mean Change from pre-post op (%)		
Domain	Poor urodynamic outcome	Good urodynamic outcome	T test
IPSS voiding	75	68	0.4
IPSS storage	42	46	0.7
IPSS total	63	59	0.7
IPSS QOL	57	64	0.4
ICS voiding	73	65	0.2
ICS incontinence	-9.5	29	0.3
ICS QOL	64	58	0.5
ICS Total	53	51	0.7

Interpretation of results

Both scores measure similar symptom severity prior to TURP and are sensitive to change following TURP. The relatively poor agreement in the storage domain probably reflects the greater emphasis on incontinence in the ICS SF questionnaire. This confirms the utility of both of these symptom indices as tools to assess change in male LUTS following intervention (in this case TURP).

Neither of the scoring systems nor any of their constituent domains are predictive of symptomatic or urodynamic outcome following TURP. This may suggest that symptom and urodynamic improvement following TURP are not dependent. It also indicates that neither score is useful to characterise the presence of outlet obstruction.

Concluding message

For the assessment and follow-up of male LUTS, both IPSS and ICS SF questionnaires show similar usefulness. The increased number of questions in the ICS SF does not seem to offer any advantage in this clinical situation.

References

1 Infection Control & Hospital Epidemiology,1989;10(1):26-32
2 Journal of Urology, 2002;167:1344
3 Journal of Urology, 2005,174:1323

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HUMAN SUBJECTS: This study was approved by the Newcastle and North Tyneside LREC and followed the Declaration of Helsinki Informed consent was obtained from the patients.