

A QUALITATIVE STUDY OF PATIENTS' EXPERIENCE DURING NON-INVASIVE URODYNAMICS.

Hypothesis / aims of study

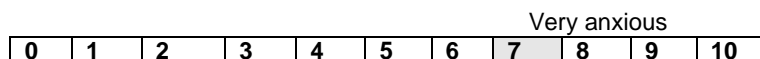
We have developed and evaluated a novel medical device that measures urine flow and bladder pressure non-invasively – the penile cuff test (1). The test involves automated repeated inflation of a pneumatic penile cuff during micturition to interrupt voiding and so determine isovolumetric bladder pressure. The pressure and flow measurements can then be used to categorise obstruction and hence guide patient management. To facilitate routine clinical use of the device we have carried out the present study using both questionnaire and qualitative interview methodology to understand and explore patients' views on their experience of the penile cuff test. The findings will then be used to formulate patient information literature.

Study design, materials and methods

With ethical approval and written consent 20 men undergoing a penile cuff test in five urology departments underwent a semi-structured and tape-recorded interview conducted by a trained research nurse. With guidance from a social scientist this interview explored the subjects' views and feelings concerning having the penile cuff test within the domains of - embarrassment, pain, distress, willingness for repeat test and anxiety. The subjects also self-completed a validated questionnaire rating these domains on a 0 - 100 mm visual analogue scale (VAS) with a positive experience scoring lower than a negative one (Figure 1).

Figure 1: Example of a visual analogue scale used in the study.

Not anxious at all



Very anxious

Subjects who had also undergone invasive pressure flow studies (PFS) as part of their assessment were asked to compare their experience of the 2 techniques of bladder measurement. The taped interviews were transcribed and subjected to qualitative thematic analysis. Findings are expressed as quotes. Ratings on the VAS were averaged for the group and compared with the elicited themes across the relevant domains.

Results

All 20 men were happy to openly talk about their experience of the test and provided sufficient material to enable thematic analysis of the transcribed interviews. They also satisfactorily completed the VAS. 17 men had undergone invasive PFS within the time frame of the study.

Embarrassment

Most men expressed a low level of embarrassment - **“as far as I am concerned it was just another test.”**, whilst in a few negative feelings were elicited - **“It was OK apart from the embarrassment factor.”** Overall mean VAS score in this domain was 0.33 mm

Anxiety and distress

Low anxiety and distress levels were associated with reports of sensitive, personalised care - **“largely due to [nurses] lovely manner.”** **“..it didn't worry me one iota.”**; **“.. another way of doing things and possibly making life easier and quicker as far as the test was concerned.”** Mean VAS score for distress was 0 mm and for anxiety 0.25 mm.

Willingness to repeat

Both in the interviews and on VAS willingness to have the test repeated if clinically required was unanimous.

Preference

Of 17 men asked about whether they would prefer to undergo a cuff test over invasive urodynamics, 16 preferred the cuff test - **“there's no comparison –the cuff test.”**; **“it's a lot better than having tubes slipped up your front.”**, whilst one man showed no preference – **“Either test is fine.”**

Other themes

A previous good experience of hospital attendance heightened acceptability of the device - **“it's not my first hospital experience..”** - as did age - **“at my age what do you care.”**; **“... too old to get embarrassed!”** The simplicity of the device was referred to frequently - **“it's like having your blood pressure taken on your willy - as simple as that.”**; **“its so easy, you don't need to undress and it only takes minutes.”** An unexpected theme revealed in the interviews was the strength of patients willingness to assist development of new technologies and confidence in the researchers for their personal safety in even the most anxious of men (VAS for anxiety 3.3 mm) - **“I came here quite anxious...I don't like any of these intrusive investigations, so I think I was assured that this was an additional test, and not likely to cause me any excessive discomfort so I decided yes [to the study].”**

Interpretation of results

The questionnaire gives a reliable account of the patient's experience of the test across the 5 domains examined. The qualitative interview data suggest that patients presume advances in technology are to enhance the healthcare experience. The interview data and questionnaire confirm that non-invasive urodynamics are more acceptable to men than invasive studies.

Feelings of anxiety and embarrassment are common to both types of studies. Patients recommend simple, diagrammatic, information sheets to inform understanding and reduce unnecessary anxiety.

Concluding message

Our findings support the use of this simple questionnaire for the comparative evaluation of urodynamic investigations. Themes elicited from the qualitative interviews confirm that the penile cuff test causes less pain and distress than conventional PFS and is consequently preferred.

References

1. J Urol 2004, 172, 11394-1398.

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HUMAN SUBJECTS: This study was approved by the Newcastle & North Tyneside Local Research Ethics Committee 1 and followed the Declaration of Helsinki Informed consent was obtained from the patients.