

CAN THE SELF-ADMINISTRATED DANISH PROSTATIC SCORE (DAN - PSS-1) BE USED IN STROKE PATIENTS?

Hypothesis / aims of study

In previous studies of stroke patients, urinary incontinence has been surveyed as the only Lower Urinary Tract Symptom (LUTS), although it is often accompanied by other symptoms such as urgency, frequency and nocturia. DAN-PSS-1 is a questionnaire developed to detect the frequency of LUTS and its impact on quality of life (QoL) in men with benign prostatic hyperplasia. [1]. Furthermore DAN-PSS-1 has been used to describe voiding problems and their impact on QoL in a general population [2]. Specific symptom questionnaires for LUTS and their impact on QoL in stroke have as far as we know not been developed. The aim of this study was to investigate the test-retest reliability of the self-administrated DAN-PSS-1 questionnaire in a sample of stroke patients.

Study design, materials and methods

Design: Prospective study design was used in which the stroke patients were asked to complete a postal self-administered questionnaire twice with at least one week interval.

The DAN-PSS-1 questionnaire consisted of 12 questions related to LUTS. For each question the participants were asked to state the frequency of the symptom and its impact on QoL. All answers were classified in a four-ranked scale from zero to three, zero being absence of symptoms or impact on QoL, three the maximal frequency of symptoms or impact on QoL.

Material: Fifty-nine stroke patients were included. The inclusion criteria were: a) stroke diagnosed according to the definition of World Health Organisation and verified by CAT scan or diagnosed as clinical stroke; b) onset of stroke \geq 1 month; c) age above 40 years. Exclusion criteria were: a) a history of two or more strokes b) other severe neurological diseases incl. dementia; c) aphasia in severe level; d) severe psychiatric diseases; e) pregnancy. The Ethical Committee for the Copenhagen County approved the present study. Statistic analysis: Median and interquartile ranges was used. The test-retest reliability was tested by weighted kappa coefficient.

Results

Fifty-nine stroke patients (24 females and 35 men) answered the DAN-PSS-1 questionnaire twice. Their median age was 65 years, interquartile range 56 - 75 years. Forty-five (75%) subjects had no previous stroke, 15 (25%) had one previous stroke. The median interval between the first and second reply was 13 days, interquartile range 8-17 days. Proportion of agreement for the symptom scores ranged from 83% to 97% and weighted kappa coefficient ranged from moderate ($w_k = 0.43$) to good ($w_k = 0.75$). Proportion of agreement for the scores on QoL ranged from 65% to 95% and weighted kappa coefficient from moderate ($w_k = 0.48$) to good ($w_k = 0.68$).

Interpretation of results

To our knowledge the present study is the first investigation of test-retest reliability of a LUTS questionnaire and its impact on QoL used in a sample of stroke patients. The study indicated that DAN-PSS-1 has an acceptable reliability and may be a useful instrument in future studies of LUTS and its impact on QoL in stroke patients.

Concluding message

The DAN-PSS-1 questionnaire had acceptable test-retest reliability and may be suitable for measuring the prevalence of LUTS and its impact on QoL in stroke patients.

Reference

[1] A new patient weighted symptom score (DAN-PSS-1). Scand J Urol Nephrol 1993;27:493-99.

[2] Lower Urinary Tract Symptoms. A population survey using the Danish Prostatic Symptom Score (DAN-PSS Questionnaire). Scand J Urol Nephrol 1999; 33:94-9.