Juha Koskimäki[1], Tomi Streng[2], Risto Santti[2], Tuija Lahdes-Vasama[3], Anna Nilsson[4] and Teuvo L.J. Tammela[1]

Institution, city, country

[1]Tampere University Hospital, Tampere, Finland, [2]Institute of Biomedicine, Department of Anatomy, University of Turku, Turku, Finland, [3]Helsinki University Hospital, Helsinki, Finland, [4]Hormos-Medical, Turku, Finland

Title (type in CAPITAL LETTERS, leave one blank line before the text)

CORRELATION OF DANISH PROSTATIC SYMPTOM SCORE AND INTERNATIONAL PROSTATE SYMPTOM SCORE AMONG MEN AGED 33-54 YEARS

<u>Aims of the study:</u>

Both DAN-PSS and IPSS have been developed for evaluation of lower urinary tract symptoms (LUTS) in patients having benign prostatic enlargement. It has been shown that these scores have strong correlation when used to assess symptomatology in these patients. However, neither of these is disease specific We aimed to study whether there is any correlation between these scores when assessing symptoms among men whose symptomatology was obviously caused by other reason than symptomatic BPH.

<u>Methods:</u>The sample was gathered from the patient registers of two University Hospitals. A questionnaire was mailed to all patients who were operated between years 1963-1973 for undescended testis, hypospadia, inguinal hernia or acute appendicitis in their childhood. The questionnaire was mailed to subjects operated for hypospadia. The sample was 646 men. For DAN-PSS three scores were calculated.

1) *For DAN-PSS prevalence* the scale of the frequency score of each symptom (part A of the question) was changed to 0='No, there are no symptoms' and 1='Yes, there are symptoms'. The score was then calculated by adding these values of all the twelve questions. The possible values of DAN-PSS prevalence score therefore ranged from 0 to 12.

2) *DAN-PSS frequency* was calculated by adding the frequency scores of each symptom. The possible values of DAN-PSS frequency score therefore range from 0 to 36.

3) *DAN-PSS total* was calculated by multiplying the frequency score by the trouble score of each symptom, and then adding the resulting figures. The possible values of DAN-PSS total therefore ranged from 0 to 108.

For IPSS two scores were calculated.

1) For *IPSS prevalence* the scale of the frequency score of each symptom was changed to 0='No, there are no symptoms' and 1='Yes, there are symptoms'. The variable was then calculated by adding the values of all questions. The possible values of *IPSS prevalence* therefore ranged from 0 to 7.

2) *IPSS total* was calculated by adding the frequency scores of all questions. The possible values of *IPSS total* therefore ranged from 0 to 35

Juha Koskimaki[1], Tomi Streng[2], Risto Santti[2], Tuija Lahdes-Vasama, Aino Nissoo[?] and Teuvo Tammela[1]

For comparison of IPSS and DAN-PSS questionnaires five additional scores were calculated by using questions that measured the same symptoms (ie. incomplete emptying of the bladder, frequency, urgency, weak stream, straining and nocturia

Selected DAN-PSS prevalence score was calculated by adding the yes/no values of part A of the questions 2, 3, 4, 5, 6 and 7. The possible values of *Selected DAN-PSS prevalence* therefore ranged from 0 to 6.

Selected DAN-PSS frequency score was calculated by adding the frequency scores of symptoms 2, 3, 4, 5, 6, and 7. The possible values of *Selected DAN-PSS frequency* therefore ranged from 0 to 18.

Selected DAN-PSS total was calculated by multiplying the frequency score by the trouble score of symptoms 2, 3, 4, 5, 6, and 7, and then adding the resulting figures. The possible values of *Selected DAN-PSS total* therefore ranged from 0 to 54.

Selected IPSS prevalence score was calculated by adding the yes/no values of the symptoms 1, 2, 4, 5, 6 and 7. The possible values of *Selected IPSS prevalence* ranged from 0 to 6.

Selected IPSS total score was calculated by adding the frequency scores of symptoms 1, 2, 4, 5, 6 and 7. The possible values of *Selected IPSS total* therefore ranged from 0 to 30.

Results:

There was a statistically significant positive correlation between the DAN-PSS and IPSS symptom scores irrespective of the score type. The correlation was at weakest when the all questions were included and the DAN-PSS score also included the trouble caused by the symptom. The strongest association was detected when DAN-PSS included only same symptoms as IPSS (Table 1).

Correlation analysis of DAN-PSS and IPSS

SCORE	Spearman Correlation Coefficient	P-value
DAN-PSS prevalence and IPSS prevalence	0.75	0.0001
DAN-PSS total and IPSS total	0.70	0.0001
Selected DAN-PSS prevalence and Selected IPSS prevalence	0.76	0.0001
Selected DAN-PSS total and IPSS total	0.77	0.0001
DAN-PSS frequency and IPSS total	0.76	0.0001
Selected DAN-PSS frequency and Selected IPSS total	0.77	0.0001