I-PSS score and its correlation to objective parameters in diagnosis of BOO, a prospective study

Bassem S. Wadie, Ahmed M. Badawi, , El-Husseiny Ibrahim, Jean J.M.C.H.de La Rosette, Abdelemenem El-Sharakawy, Nermine Elkkalla, Mohamed A Ghoneim
(Presented by Dr. Wadie)

INTRODUCTION AND OBJECTIVES: Since its development on 1992, AUA 7 symptom index has been commonly used to grade the severity of LUTS and to classify patients with BPH.
Since symptom scores are essentially based on psychometric measurements and calculations of subjective parameters; symptoms; this work aims at objectively evaluate the need to use scores and their correlation to more objective parameters

PATIENTS AND METHODS: Patients and Methods: Since May 1997, 460 patients were prospectively included in this study, representing a non-biased sample of patients with SPE seeking treatment.
Age range is 41-88 (mean age is 60.4+/- 9.4 years).
All patients had the following investigations:
1. Clinical examination, including DRE and neuro-urologic examination.
2. Serum total PSA (IMx technique)
3. Free flow rate
4. TRUS
5. OPD cystoscopy
6. Filling and voiding cystometry, with interpretation of the pressure flow relation using Schafer's nomogram and model of Lin.PURR.
7. I-PSS questionnaire. A validated standardized physician –administered Arabic translation was used.
Statistical analysis was carried out using Spearman's (r) correlation coefficient

RESULTS: No significant correlation could be found between the individual questions of the symptom score and objective parameters (Maximum free flow rate, prostate volume estimated by TRUS, residual urine, and Schafer's grade of obstruction), where Spearman's (r) ranged from –0.001 to -0.16.
This lack of correlation was maintained, even when the sum of voiding (obstructive) symptoms, the sum of the storage (irritative) symptoms and the total sum of the questions were used individually
Further analysis using Artificial Neural Network is being carried out, based on unsupervised and supervised learning models.

CONCLUSION: Symptom scores could not be used alone in evaluation of patients prior to treatment of their BPH
Furthermore, they can not be used for the evaluation and/or the comparison of different treatment modalities of BPH.