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VALIDATION OF BRAZILIAN VERSION OF THE QUESTIONNAIRE "THE INTERSTITIAL CYSTITIS SYMPTOM INDEX AND PROBLEM INDEX"

Hypothesis / aims of study
The diagnosis of interstitial cystitis (IC) is still a challenge due lack of universally accepted criteria, besides the patient may present early few symptoms, difficulting an accurate result. It can be given by examination of cystoscopy, urodynamic, potassium sensitivity testing, biopsy, laboratory tests and questionnaires. But none is conclusive, and it is believed that a symptom questionnaire to capture and record the presence of all (IC) symptoms is useful in helping to establish the diagnosis and that other resources can contribute to a more accurate diagnosis [1].

Since the questionnaires are an important aid for the diagnosis of interstitial cystitis, and in turn are not available in Portuguese in Brazil, it is necessary to translate and validate questionnaires developed, tested and used in other countries, to obtain an accurate diagnosis and, consequently, an appropriate treatment and better prognosis.

The aim of this study is to validate the Brazilian version of the questionnaire "The Interstitial Cystitis Symptom Index and Problem Index".

Study design, materials and methods
This is a validation of research instrument. In the present study it was analyzed some psychometric properties of the questionnaire "The Interstitial Cystitis Symptom Index and Problem Index" through test-retest reliability and discriminated validity.

For testing the **stability** of the questionnaire, it was applied twice with an interval of 7 days or less prior to the occurrence of any fact that could change the status of the subject (e.g. administration of a therapy). It was considered to be satisfactory results similar in both applications. We applied the test in a study group with 30 patients with interstitial cystitis and the retest in 24 individuals with the disease. The patients were included in the study group if they had diagnosis of chronic or nonspecific cystitis during the biopsy examination.

To evaluate the **discriminant validity** were used three groups. The study group consisted of the same 30 patients who participated in the test-retest and who had a diagnosis of interstitial cystitis, considering the data for analysis of the first questionnaire. The first control group (control group 1) was formed by people with at least one of the symptoms of interstitial cystitis (pelvic pain, urgency and / or urinary frequency), but without a confirmed diagnosis of the disease. The second control group (control group 2) consisted of individuals without symptoms suggestive of interstitial cystitis. The test was applied to 29 patients in control group 1 and 25 patients in a control group 2.

Results
The mean age considering all participants of the three groups (n=84) was 47.5 years. The average age of the study group (n=30) was 45.2 years, control group 1 (n=29) was 50.9 years and the control group 2 (n=25) was 46.5 years. The Kruskal-Wallis test showed a p-value=0.1497, indicating no statistical evidence of difference among the three groups regarding the age.

The average income of the three groups (n=84) was R$ 1,806.99. The average income of the study group (n=30) was R$ 2,906.17, the control group (n=29) was R$ 1,059.03 and the control group 2 (n=25) was R$ 1,355.60. The Kruskal - Wallis test showed a p-value = 0.0013, indicating that there is statistical evidence of difference among the three groups in terms of wage income. The income of the study group is significantly higher than in the two control groups that do not differ between themselves.

The chi-square test showed a p-value=0.0243, indicating that there is statistical evidence of difference among the three groups regarding the percentage distribution of schooling. The study group had a higher percentage of people with complete secondary school or more.

The reliability as measured by test-retest showed good stability of the instrument, with no statistical evidence of difference between test and retest. The symptom score of the instrument "The Interstitial Cystitis Symptom Index and Problem Index" showed a p-value=0.5402, the score of problems showed a p-value=0.5859.

The sensitivity and specificity of the questionnaire comparing with the diagnosis determined by the physicians based in clinical and objective data (biopsy) were respectively, 83.33% and 64.81%.

Discriminant validity was assessed by Fisher's exact test and showed that there was statistical evidence of difference between the three groups regarding the percentage distribution of the classification of the cystitis under the criterion by O'Leary considering symptoms and problems together. Among the study group and control group 1 the p-value was p= 0.0470 between the study group and control group 2 the p-value was p≅0, and between control groups 1 and 2 the p-value was = 0.0001.

Interpretation of results
The difference in wage income and education between the study group and control group occurred because the first group have been captured in a region of Brazil, which has a high per capita income.

The high scores observed in the indices symptoms and problems of the instrument applied to control group 1, we found a high incidence of individuals suffering from urinary problems and symptoms that are characteristic of interstitial cystitis. But due to the difficulty in making the diagnosis of the disease, these patients could be not diagnosed and treated correctly.

During the interview of inclusion in the control group 2, most said that had no urinary symptoms, but after they read and filled the instruments, it was noted that 16 (64%) patients had nocturia.

Nocturia appears in patients with interstitial cystitis, but it is also characteristic of detrusor overactivity [2], so the correct diagnosis is necessary to make an appropriate treatment.

<u>Concluding message</u>
Despite of the still small number of patients diagnosed with interstitial cystitis in Brazil, the test-retest reliability and discriminant validity of the instrument "The Interstitial Cystitis Symptom Index and Problem Index" was carried out satisfactorily. In future studies the intention is to carry out further assessments of psychometric measures with larger number of patients.

<u>References</u>
1.   Sant, G R; Evans, R J. Current diagnosis of interstitial cystitis: an evolving paradigm. Journal of Urology, 2007.
2.   Scott, AM; Peter, K S. Diagnosis of interstitial cystitis/painful bladder syndrome in patients with overactive bladder symptoms. Reviews in Urology, Vol. 9, No. 1, 2007.