Turkish Validation of the Overactive Bladder Symptom Score (OABSS) and Evaluation of Mirabegron Treatment Response

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ABSTRACT

Overactive bladder (OAB) is defined as a group of symptoms with or without frequent urinary incontinence in the absence of an infection or other obvious pathologies, often with complaints of frequent urination and urinary urgency (day and night) along with or without urge incontinence. The aim of this study is to assess the validity and reliability of Turkish overactive bladder symptom score (OABSS) and to evaluate the results of mirabegron treatment with OABSS.

METHODS

The study was carried out with 117 patients who applied to Urology outpatient clinic between June 2018-January 2019. OABSS Turkish validation was developed from the English version. Demographic data of the patients were recorded. Patients referred to urology clinic with OAB symptoms were included in the study. In order for the patients to be included in the study, they were required to read and write in Turkish, to understand what they read and to be over 18 years of age. Patients who were under 18 years of age, received active OAB treatment, cannot read and write Turkish, cannot understand what they read, and did not agree to participate in the study were excluded.The demographic characteristics of the patients were recorded and their physical examinations were performed. Paitents filled in the OABSS-Turkish form consisting of 4 questions, Overactive bladder questionnaire form (OAB-v8) and International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF). 3-day urinary diaries of the patients were recorded. The patients filled out the same forms again after 2 weeks. The group receiving mirabegron treatment within these patients filled out the OABSS-Turkish again after 8 weeks.

RESULTS

A total of 117 OAB patients, including 82 OAB-wet and 35-OAB dry, were included in the study. The mean age of the patients was 46.79±14.26(18-78) years and the mean duration of OAB complaint was 32.28±32.21 months. The mean score of the OABSS is 9.9±3.14.

The results of the reliability assessment showed that the intraclass correlation coefficient of the total OABSS score was 0.71 (weighted coefficients of individual item points, 0.635-0.831), and the Cronbach α was 0.736. In the validity analysis, the OABSS total score was highly correlated with that belonging to other questionnaire forms (OAB-v8, ICIQ-SF and bladder diary). The mean total OABSS scores of the 56 patients receiving Mirabegron treatment decreased from 11.47±2.85 to 6.53±4.58 ($p<0.001$). The same decrease was observed in OAB-v8 and ICIQ-SF scores ($p<0.001$ for OAB-v8 and $p=0.001$ for ICIQ-SF). This improvement in symptom scores was also observed in bladder diary values. The treatment was stopped for 2 patients using Mirabegron when they had hypertensive attacks (TA>190/130).

INTERPRETATION OF RESULTS

In this study, the validity and reliability of the Turkish version of OABSS were evaluated using the data collected from OAB patients residing in Turkey. For assessing the reliability, the test-retest reliability and internal consistency(ICC) of OABSS were evaluated. The ICC for this study was more than 0.7 (0.71), which provided a sufficient condition for clinical trials. For each item in OABSS, weighted Kappa coefficients ranging from 0.64 to 0.83 were found. The highest weight kappa coefficient was for the fourth question (frequency of incontinence), while the lowest weight was for the frequency for urinary urgency. For internal consistency, a Cronbach α value of 0.736 was calculated and it was determined that the survey was valid.

CONCLUSIONS

The OABSS-Turkish version has been developed and approved as a reliable tool for evaluating patients with OAB. This study showed that mirabegron is an effective agent in the treatment of OAB, urinary frequency, urge incontinence and for improving OABSS, OAB-v8 and ICIF-SF scores. This simple questionnaire is expected to be useful in clinical studies and medical applications among Turkish-speaking OAB patients.

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