

Evaluation of Test-retest Reliability Overactive Bladder Symptoms Score Validation of Patients with localized Prostate Cancer

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Dr.Sawsan Ahmed Awadallah

Radiology department, Collage of Applied Medical Science, Najran University, Saudi Arabia

Dr.Ahmed Abdo A. Harwn

Nuclear Medicine Consultant KKH, Najran, Saudi Arabia

Dr.Ali Hamed Z. Alshehri,

Radiology department, Collage of Applied Medical Science, Najran University, Saudi Arabia

Mr.Abdullah M. Alshehri

Radiology Department, Najran Armed Forces Hospital, Saudi Arabia

Mr.Ibrahim S. AlHarthy

Radiology Department, Najran Armed Forces Hospital, Saudi Arabia

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Evaluation of Overactive Bladder, Urination diary, incontinence, reliability.

Abstract

The purpose of current study was to compare the reliability of testing and retesting patients with localized prostate cancer with validated tools for assessing the International Prostate Symptom Score (IPSS) and (QOL) in Overactive Bladder men (OAB), to develop and evaluate correlations. Methods:

This study obtain the three dairy and Overactive Bladder Symptom Score (OABSS), the International Prostate Symptom Score (IPSS) and (QOL) over the course of six visits. Utilizing the weighted KABBA coefficient, comparisons were done. OABSS, voiding diary, International Prostate Symptom Score (IPSS) and (QOL) all were compared with internal correlation coefficients (ICC) between the first and second application verified. 3-Day Bladder Diary Questionnaire correlation: Patient perceptions status of bladder, (IPSS) and (QOL) at each visit (6 visits in total) in 52 localized prostate cancer patients. A test was performed, including the index. At enrollment they underwent OABSS and after they received Mirabegron 25 mg once daily for 1 month and then repeated the questionnaire after 6 months. Validity and reliability of patients' OABSS and its correlation with the patients' perception of their 3-day bladder diary and bladder status was performed, respectively. Results: Of the total 52 OAB patient's, 27 had their OAB recorded in the wet and 25 had their OAB recorded in the dry. Weighted KABBA Coe feints ranged from 0.137 to 0.307 for each score of symptoms and 0.233 for the total symptoms score, which was moderate to good. Seventy-two percent of the patients (72%) were followed up and had completed responsiveness studies. During the first month on Mirabegron 25 mg once daily from baseline, OAB symptoms worsen significantly. OABSS gradually deceased over time within three months after retest reliability was confirmed.

OAB in our population is significant in terms of the following, frequency, urge, incontinence, OABSS, (IPSS) and (QOL) improvements. However, the current study shows that Mirabegron is effective in treating other OAB symptoms in patients such as frequent urinary incontinence, urge, OABSS, and the International Prostate Symptom Score, which improves over time was done..

1. Introduction

(OAB) is a common syndrome characterized by instability of bladder contractions that cause urinary urgency, nutria, and frequent urination. The affected person's Quality of Life is

adversely affected by their OAB creak associated [1]. OAB is widespread and affects mental and physical health as well as activity. Impaired patient Quality of Life daily activities, travel, sleep/energy [2]. It is defined as a symptomatic urinary urgency syndrome, with

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frequent usually and notarial, with or without urge incontinence, without infection nor other pathologic features obviously [3]. Prevalence ranging between 8.0% to 28.4% in China and South Korea respectively [4,5]. This indicated that OAB occurred with a frequency of 12.4–53.1%, which depend on the target population and OAB definitions [6,7]. The OAB Symptom Score (OABSS) was used in 2006 as a self-report questionnaire for OAB symptoms quantification [8]. The questionnaire selected 4 symptoms: sense of urgency, urge incontinence, daytime frequency, and nighttime frequency. Response to treatment was confirmed in Japanese patients and was validated using Japanese patient data only [9].

2. Methodology

Current research needs to translate it into local languages and validate it using local patient data. Correlations with other OAB measurements, including 3-day bladder diaries and patient bladder status (PPBC) measurements, were compared with OABSS scores after treatment with Mirabegron, where higher bladder volumes were previously tolerated. Quality Of Life indexed each visit (six visits in total). OABSS was performed at enrollment and questionnaires were repeated 1 month after treatment with Mirabegron 25 mg once daily and 6 months after treatment. An assessment of the patient's reliability and validity of their OABSS and its correlation with the patient's perception of the 3-day bladder diary and bladder status were performed, respectively. Oral and written informed consent was given to patients prior to data collection (IRB registry number for KACST, H-11-N-081).

2.1. Statistical analysis

All calculations were performed using SPSS for Window version 20, Clinical demographics, urinary incontinence status and IPSS included symptom urgency and frequency, pre- and post-treatment parameters were compared as mean \pm standard deviation, and categorical data were presented as numbers and percentages.

3. Result:

Fifty-two OAB patients were enrolled with OAB in the pretest, either continental (OAB dry; n = 25) or incontinent (OAB wet; n = 27) treated with Mirabegron 25 mg for 3 months was repeated after a treatment period. The characteristics and baseline shown in Table 1. The OAB symptoms improved significantly from the base line three months post treatment with Mirabegron as shown in Table 2. Associated with bladder diaries, voiding episodes number per day it decreased from 18.5 to 14.6 ($p < 0.001$). The number of pads that used for insentience decreased from 1.7 to 1.0 per day ($P = 0.05$) and the number of incontinence episodes decreased from 1.9 to 0.5 per day ($p < 0.001$). Total IPSS decreased from 17.6 to 9.8 ($p < 0.001$) and OSBB decreased from 12.3 to 7.9 ($p < 0.001$). IPSS blank decreased from 7.2 to 3.8 ($p < 0.001$). As shown in Table 3, the IPSS memory score decreased from 11.9 to 7.5 ($p < 0.001$).

4. Discussion

Symptoms showed improvement according to all scores used (values decreased). A more pronounced improvement in OAB symptoms was observed with 3-6 months of treatment with Mirabegron. 12-17% of population estimated OAB, tending to increase with age [13, 14]. Recent epidemiological studies show similar in East and West in prevalence of OAB, however that the behavior and awareness are less in the East according to medical care [6,13]. Most of the available measures assess the symptoms of OAB impacted on daily life. OAB diagnoses is based solely on symptoms and has no disease activity physiological markers. However, there is still a lack of review and consensus on which symptoms should be used to define OAB [14]. The correlation between her OABSS in Saudi Arabia and her 3-day bladder diary was high across study visits in the first part of our study. A 3-day bladder diary has been shown to record micturition status but does not reflect urinary urgency. Therefore, OAB severity cannot be determined from his 3-day bladder diary alone. In addition, having to record each urine volume to complete a diary can interfere with sleep at night and make daily life uncomfortable. Urgency and frequency are also symptoms of her IPSS,

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accepted and widely used by urologists. Mirabegron 25 mg is a once daily treatment by oral for OAB samples. The effectiveness of it is high in reducing OAB symptom through the six visits. Recording micturition status using a 3-day bladder diary alone cannot assess the severity of OAB. Completing a diary requires the patient to prepare a container and each time, record the amount of urine that produced, which can interfere with sleep at night. However, IPSS is widely accepted by urologists, although the IPSS was developed to assess benign hyperplasia prostatic patients rather than OAB patient [16].

5. Conclusion:

The Arabic version of the OABSS questionnaire has demonstrated to be a trustworthy instrument for evaluating his OAB, and the lessons learnt from this study will be helpful to local urologists and researchers.

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Declarations

Ethics approval and consent to participate
All participants or their first-degree relatives an informed consent was obtained, and they talked about the aim of the study and informed that the

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data would be used for scientific purposes only, under approval All procedures followed were in accordance with the ethical standards of the responsible on patients' rights of King Khalid Hospital, Najran, Saudi Arabia.

Consent for publication

All participants inform that data would be published without compromising their personal information, hence it is not including images or videos.

Availability of data and material

The data is collected and analyzed during the current study under (IRB registration number with KACST, KSA: H-II-N-081). King Khalid Hospital, Najran, Saudi Arabia.

Competing interests

The authors declare that they have no competing interests."

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Author contribution

(SA) ensuring that original data/original figures/materials/code upon which the submission is based are preserved following best practices in the field so that they are retrievable for reanalysis; (AH) confirming that data/figures/materials/code presentation accurately reflects the original; and (AA) foreseeing and minimizing obstacles to the sharing of data/materials/code described in the work. I am (SA) responsible for managing these requirements across the author group (AA) and (AMA) who are fully aware and in compliance with best practices in the discipline of publication. All authors have read and approved the manuscript" and ensure that this is the case.

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Tables

Table 1: Patients' characteristics baseline (n = 52).

	Age in (year)
Diabetes mellitus (%)	59.5(58.0,81.0)
	9(17.3)
Hypertension (%)	22 (42.3)
Prostate size (mL)	20.4 (19.7, 38.0)
Prostate-Specific Antigen (ng/mL)	7.8(5.3,12.3)

Table 2: Three patients groups symptom score;

	Score	OAB	Wet	
OAB Dry				
OAB				
Patients - 52	27	25		
Question 1 0 7	7	0		
Daytime Frequency	1	38	17	
	21			
	2 7	3	4	
	mean	1.15	1.03	1.1
Question 2 0 7	2	5		
Urgency 1 20	12	8		
	2 11	7	4	
	3 14	6	8	
	mean	2.32	2.39	2.47
Question 3 0 0	0	0		
Nighttime Frequency	1	0	1	
	2			
	2 13	9	4	
	3 10	6	4	
	4 15	6	7	
	5 14	5	8	
	mean	4.18	4.31	4.76
Question 4 0 28	2	26		
Incontinence Urgency	1	6	5	
	1			
	2 4	3	1	
	3 5	5	0	
	4 3	21	1	
	5 6	6	0	

OABSS = overactive bladder symptom score; OAB = overactive bladder; BMI = body mass index.

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Table 3: Test–retest reliability and internal consistency of the OABSS;

	Weighted Confidence Spearmans roh	KABBA Interval	Coefeints 95%
p-value			
OABSS Question 1	0.663	0.393-0.847	
	0.390		
p = 0.004			
OABSS Question 2	0.586	0.387-0.677	
	0.385		
p< 0.001			
OABSS Question 3	0.544	0.371-0.788	
	0.469		
p< 0.001			
OABSS Question 4	0.836	0.612-0.889	
	0.770		
p< 0.001			
Total			
OABSS	0.712	0.456-0.745	—
OABSS = overactive bladder symptom score.			