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CLINICALLY SIMPLIFIED SIMULTANEOUS ASSESSMENT OF SYMPTOM SEVERITY AND PERCEPTION OF BOTHER SPECIFIC TO EACH OVERACTIVE BLADDER SYMPTOM

Hypothesis / aims of study

With increasing overactive bladder (OAB) severity, significant decreases were reported in the quality-of-life (QOL) (1). Although total symptom severity in OAB is generally associated with bother, one certain specific symptom out of all the OAB-related symptoms may have more impact on the QOL of an individual patient. Since such additional individual assessment of the bother associated with each OAB symptom might modify the clinical therapeutic strategy on an individual patient basis, we reported our clinical experience using concomitant use of the measurements of both OAB-severity and bother specific to each OAB symptom. The overactive symptom score (OABSS) was reported in a validated questionnaire to assess OAB-severity (2). Additionally, in this study, a visual analogue scale (VAS) was used for assessment of the bother specific to each OABSS item (out of the 4 questions on the OABSS) (3), called the OABSS-VAS. The aims of this study are to report the usefulness of a simplified simultaneous assessment of symptom severity (by OABSS) and the perception of bother specific to each OABSS (by OABSS-VAS) in our outpatient clinic experience using an anti-cholinergic agent for the females OAB and an alpha-1-adrenergic antagonist for the males as the first line therapy for OAB.

Study design, materials and methods

Eighty-seven patients visiting the outpatient clinic (56 females, mean age 69.9 years, and 31 males, mean age 68.7 years) complaining of OAB symptoms were enrolled in this study. The severity of OAB symptoms and the bother specific to each OABS symptom were assessed using 2 questionnaires the OABSS and the OABSS-VAS before and after the initial treatment for OAB using an anti-cholinergic agent for the female patients and an alpha-1-adrenoceptor blocker for the male patients.

For the simultaneous analysis of both severity of symptom and bother related to OAB, we developed a graph with the sum of the OABSS on the X-axis (0-15 points) and the sum of the OABSS-VAS on the Y-axis (0-400mm), on which a point, representing the severity of the symptom and related bother for each individual OAB-patient, can be plotted (Figure 1) (which we named the OAB-symptom/bother graph). The pre- and post-treatment plotted-points for each individual patient were classified according to the six categories based on the 3 grades of severity (mild, moderate, or severe) for symptoms in the sum of the OABSS, and 2 grades of severity (minor, or major) for bother for the OABSS-VAS-measure. The geometrical parameter “Therapeutic Vector (TV)” was defined as an arrow that has a certain distance (magnitude) and angle (direction) from the pre- (X1, Y1) to the post-treatment point (X2, Y2). The graph of Therapeutic Vector (TV) simultaneously represents 2 clinical therapeutic effects, which includes both severity of symptom (by sum of OABSS in X-axis) and bother (by sum of OABSS-VAS in Y-axis).

Results

A positive correlation (R=0.78, p=0.000) was found between the severity of OAB (assessed by the sum of the OABSS) and bother related with OAB (assessed by the sum of the OABSS-VAS measure). In the pre-treatment graph (Figure 1, the graph of OAB-symptom/bother), when using identified thresholds of 10 in the sum of the OABSS, and 240 (240/400, 60% bother) in the sum of the VAS-measure,100% of plotted-points (27/27) were successfully classified as ”severe symptom and major bother”. On the other hand, when using identified thresholds of 5 in the sum of the OABSS and 240 in the sum of the VAS-measure,100% of the plotted points (10/10) were successfully classified as ”mild symptom and minor bother”.

In comparison between pre- and post-treatment of the OAB, improvement (defined as shift to better categorized section by improvement of symptom or bother from pre- to post-treatment) was observed in 66% (37/56) with anti-cholinergics in females, and 58% (19/31) with alpha-blocker in males (Figure 2). In analyzing the distance (magnitude) of vector in the graph of OAB-symptom/bother, the vector of the anti-cholinergic agent (149±88.2) in females was statistically equivalent with that of the alpha-1-blocker (152±66.6) in males (Figure 3).

Figure 1.

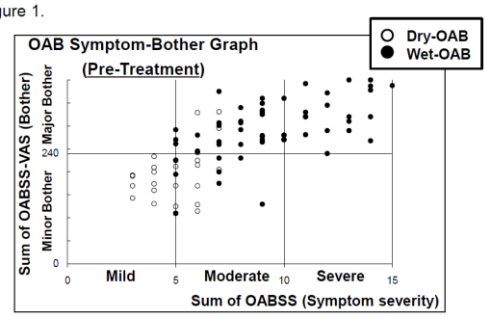


Figure 2.

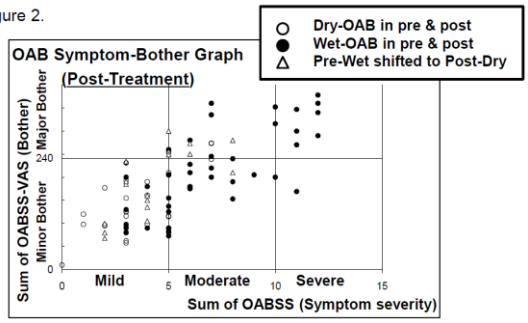
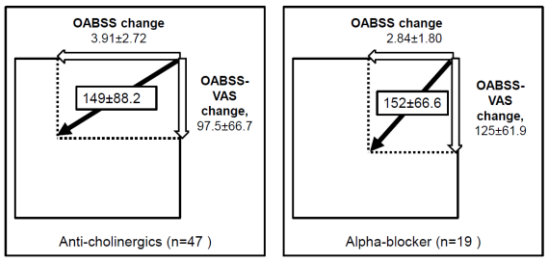


Figure 3. Comparison of Therapeutic Vector (Black arrow)



Interpretation of results

In OAB, the clinical assessment of not only the severity of the disease but also of the bother associated with the OAB symptom might modify the therapeutic strategy.

The simple measure, which has the capacity to represent both severity of disease and bother associated with OAB symptom simultaneously, would have clinical impact on decision-making. This graph, with the sum of the OABSS on the X-axis and the sum of the OABSS-VAS on the Y-axis, allowed visual, simultaneous interpretation of each patient's reported severity of OABSS and VAS-measure of bother specific to each OAB symptom.

The Therapeutic Vector (TA) on the graph could be useful in visual, simplified understanding of the therapeutic effectiveness to improve not only the severity of symptom but also of related bother, simultaneously.

Concluding message

Clinically simplified simultaneous assessment of symptom severity and perception of bother specific to each overactive bladder symptom could be useful in identifying the clinically important symptom impacting on the QOL of the individual patient, and which the patient wants to be treated.

References

1. European Urology 59; 629-636, 2011
2. Urology 68: 318-323, 2006
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Specify source of funding or grant	**Funding will be NONE**
Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Ethics Committee of Kyoto prefectural university of medicine**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**