

ASSESSMENT METHOD OF SEVERITY OAB SYMPTOMS

Hypothesis / aims of study

Significance of OAB is not only limited by its high prevalence but greatly impairs patient's quality of life. It is proved that OAB symptoms noticeably affect all aspects of human life. It is defined that degree of impairment patient's quality of life correlates with intensity of OAB symptoms. At the same time nowadays there is no universally recognized method of assessment severity of OAB symptoms based on objective parameters. Development of such method was the principal target of our research

Study design, materials and methods

Assessment of severity of OAB symptoms was performed in 533 patients with non-neurogenic OAB. Mean age of the patients was 56,4±0,6 years old and varied from 16 to 85 years; 347 (65,1%) were female patients and 186 (34,9%) - male. All patients were underwent complex urological examination. Patients with other diseases accompanied by disorders of urination except of OAB were excluded. All patients filled in voiding diaries during 72 hours and King's Health Questionnaire (KHQ) form. Group of patients were underwent complex urodynamic examination. To perform statistical analysis for development method of assessment severity of OAB symptoms data of 200 patients with complete urological examination (urodynamic tests, proper filled KHQ forms and 3-day voiding diaries) was chosen. There were 126 (63,0%) female patients and 74 (37,0%) male; age varied from 22 to 74 years; mean age was 57,6±1,6 years old.

Results

Our method was based on role of each of OAB symptom in impairment patient's quality of life and the suggestion about as more a symptom affects it as more significant it is. Thereupon correlation between intensity of separate OAB symptoms and impairment patient's quality of life was analyzed. Patient's quality of life was evaluated using answers on the first and second question of KHQ: Q1 «How would you describe your health at present? » and Q2 «How much do you think your bladder problem affects your life? ». Any statistically significant differences between answers on Q1 and Q2 in male and female OAB patients were not found ($\chi^2=4,76$; $p>0,1$ и $\chi^2=4,55$; $p>0,1$ in accordance), and correlation between these two questions was proved ($\chi^2=28,17$; $p<0,001$). Taking this observation into account for further analysis we used only answers on the first question and did not analyze correlation with gender. Multiple regression analysis revealed correlation between Q1 answer, frequency of urinations, urgency, and number of urge incontinence ($R^2=0,04$; $F=4,07$; $p=0,008$). Thus we proposed our classification of OAB by severity of symptoms based on these results. Multiple regression analysis and three-factor dispersing analysis (ANOVA) let us to classify patients on three groups by severity of OAB symptoms according to the formula:

$$S = 2 \times A + B + 1^*$$

S- score,

A – 3-day frequency;

B – 3-day urgency;

* – 1 point should be added if urge incontinence is present.

1st (mild) degree of severity is diagnosed in 62 and less score, score from 63 to 80 characterizes 2nd (moderate) degree and score over 80 is classified as 3^d (severe) degree. To confirm our assessment method we classified 533 OAB patients to three groups by severity of OAB symptoms. 119 (22,3%) had 1st, 148 (27,8%) – 2nd and 266 (49,9%) – 3^d degree of severity OAB symptoms.

Interpretation of results

Patient's age and gender did not differ significantly according to severity of OAB symptoms. Patients suffered from advanced degree of severity of OAB symptoms intensity of three main symptoms of OAB: frequency of urinations, urgency and urge incontinence was higher. Cystometric characteristics (bladder capacity during first sensation of bladder filling and maximum cystometric capacity) were minimal in patients diagnosed 3^d (severe) degree. Maximal negative impact on patient's quality of life was also observed in those experienced 3^d degree of severity of OAB symptoms.

Concluding message

According to our research severity of OAB symptoms could be classified as 1st (mild), 2nd (moderate) and 3^d (severe) degree. Introduced assessment method represents severity of clinical manifestations of OAB as well as degree of impairment lower urinary tract urodynamics and patient's quality of life. The classification of severity OAB symptoms is easy to use and seems to be perspective for wide implementation.

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Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	Yes
Specify Name of Ethics Committee	Local Ethics Committee of St Petersburg State Medical Pavlov University
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes