

ISSUES OF EARLY DIAGNOSIS OF URINATION AND ERECTILE DISORDERS DUE TO PROSTATIC HYPERPLASIA

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Abstract

The paper is devoted to the issues of early diagnosis and the choice of treatment for urination disorders (LUTS - lower urinary tract symptoms) and erectile function (EF) caused by benign prostatic hyperplasia (BPH). The assessment of the severity of LUTS, as well as the assessment of the erectile function of patients with BPH, was carried out using a special electronic questionnaire developed by the staff of the Urology Department of the Samarkand State Medical University. The results of the patient survey were evaluated using an electronic questionnaire, depending on the characteristics of filling out the questionnaire - independently, with the help of a doctor, using an electronic application.

Key words: benign prostatic hyperplasia, lower urinary tract symptoms, erectile function, electronic questionnaire.

Relevance. Currently, benign prostatic hyperplasia (BPH), being the most common non-oncological disease of older men, is a pathology, the clinical manifestations and complications of which significantly affect the quality of life of elderly and senile men [1,3,12,17,21,24, 33].

Accurate data on the number of patients with BPH are not available either in Uzbekistan or in other countries of the world. However, it is known that by old age BPH develops in 95% of men, and at autopsy it is detected in more than 80% of men older than 70 years [4,5,10,14,23].

At the same time, a characteristic set of symptoms and clinically significant macrostructural changes in the prostate gland (PG) develop much less frequently: only 40-50% of men aged 50-64 years have clinical manifestations of BPH [25,26,29,30,31]. At the same time, the severity of symptoms of the lower urinary tract (LUTS) can vary from a minimal level to severe urination disorders that significantly affect the patient's ability to work. According to modern concepts, LUTS are divided into three groups in accordance with the disorder of the urination phase - "accumulation", "emptying" and "post-micturition" [2,7,8,22,33,35].

According to the literature, the prevalence of BPH varies significantly in men of different ages and ethnicity. It is known that in the United States, on average, BPH is diagnosed at the age of 58.6 years, and with each passing year, the risk of clinical symptoms of BPH increases by 4–20% [6,9,20,27]. Compared to white men, BPH is 41% more common in Hispanics and African Americans in the US. Also, men of these ethnic groups are much more likely to develop more severe symptoms of BPH, indicating the neglect of diagnosis and treatment [11,18,28]. Timely detection of early LUTS characteristic not only for BPH, but also other pathologies of the genitourinary system prevents the occurrence of severe complications of the disease [15,16,19,34].

Today, each urologist, according to the clinical guidelines of the European Association of Urology (EAU), for the diagnosis of BPH in elderly men, must use the International Prostate Symptom Score (IPSS - International Prostate Symptom Score) and additionally an index of quality of life associated with urination (QoL - Quality of life), which allow him to practically assess the severity of urination disorders in patients of any age. However, the interpretation of the results of the completed questionnaires does not always help the doctor to correctly assess the true condition of the patient. So, as many clinicians have noticed in these questionnaires, there are a number of shortcomings associated with the characteristics of the subjective sensations and cognitive states of the respondent, which he can interpret taking into account the time and place of filling out the questionnaire, the presence of a doctor (sometimes, etc.)

In addition, patients' perception of their pathological condition is largely determined by their cultural, religious (especially Muslim) and mental characteristics. The issues of the influence of the mental status of the patient on the features of filling out the questionnaire of urination disorders have been studied in the works of many scientists [1,13, 34]. Also, the cognitive state of the subjects plays an important role in the reliability of the results obtained during the survey, as evidenced by the results of the study by NR Netto et al. (1995), who considered the minimum threshold of cognitive abilities (incomplete secondary education) from the patient to be sufficient for qualitative completion of the IPSS questionnaire. Unfortunately, the authors found an inverse relationship between the level of education of the respondent and the perception of the meaning of the questions of the proposed test [19,28,32].

Therefore, in 2011, the staff of the Department of Urology at the University of Stellenbosch and CL van der Walt, in order to simplify the understanding of the questions asked by patients, developed a questionnaire for the visual assessment of prostate symptoms (VPSS) [35,36,37]. The questionnaire contains 4 questions corresponding to analogues of IPSS, reflecting information about the frequency of urination at different periods of time (night and day), the state of the urine stream and the quality of life of the respondent. The results of VPSS are much less correlated than IPSS with the level of cognitive abilities of the patient.

All of the above prompted us to search for and develop new diagnostic methods, the use of which will help to assess, with a greater degree of evidence,

the dynamics of the clinical manifestations of LUTS and erectile function (EF) in men caused by prostate diseases, including BPH.

Aim of the study: compare the effectiveness of assessing LUTS in elderly men using two methods: the International Prostate Symptom Index (IPSS) questionnaire and the electronic questionnaire and determine the tactics of their rational treatment.

Material and methods. We have examined 398 men over 50 years of age, with the preservation of independent urination. In all patients, along with clinical and laboratory studies, for the first time using a special electronic questionnaire No. DGU 09484 (ST-TL DPO.exe) (hereinafter referred to as EQ), created by the staff of the Urology Department of the Samarkand State Medical University, the prevalence and severity of LUTS specific for BPH were determined, as well as erectile function. The average age of the patients was 64.3 ± 3.7 years.

Results. Based on the results of the survey of respondents, 4 groups of subjects were formed: group I - 96 (24.1%) men who independently filled out the IPSS questionnaire (IPSSi), group II - 92 (23.1%) men who filled out the IPSS questionnaire with the help of a doctor (IPSSd), group III - 111 (27.9%) men who were surveyed according to the electronic questionnaire with the help of a doctor (EQd), group IV - 99 (24.9%) (patients with computer skills) - were surveyed on EQ independently (EPi).

The control group was patients who filled out the IPSS questionnaire with the participation of a doctor (group II). This decision was made due to the fact that the IPSS questionnaire is an internationally valid LUTS assessment scale, the effectiveness of which has been repeatedly confirmed, and the doctor's participation in answering questions allows leveling all inaccuracies and possible misunderstanding by the patient of the question or answer options. In contrast to IPSS, patient surveys using EN allow assessing not only the severity of LUTS and QoL, but also EF, the maintenance of which is important for the quality of life of every man, regardless of his age.

After questioning according to the IPSS questionnaire independently in patients of group I, it was revealed that in 53 (55.2%) cases there was a mild degree of LUTS, a moderate degree - in 31 (32.3%) cases. In the remaining 12 (12.5%) cases, a severe degree of severity of disorders was determined (Fig. 1).

When filling out the questionnaire with the help of a doctor (IPSSd), in 16 (17.4%) patients of group II, a mild degree of severity of LUTS was determined, in 61 (66.3%) cases - moderate, in the remaining 15 (16.3%) - severe the severity of urination disorders (Fig. 1).

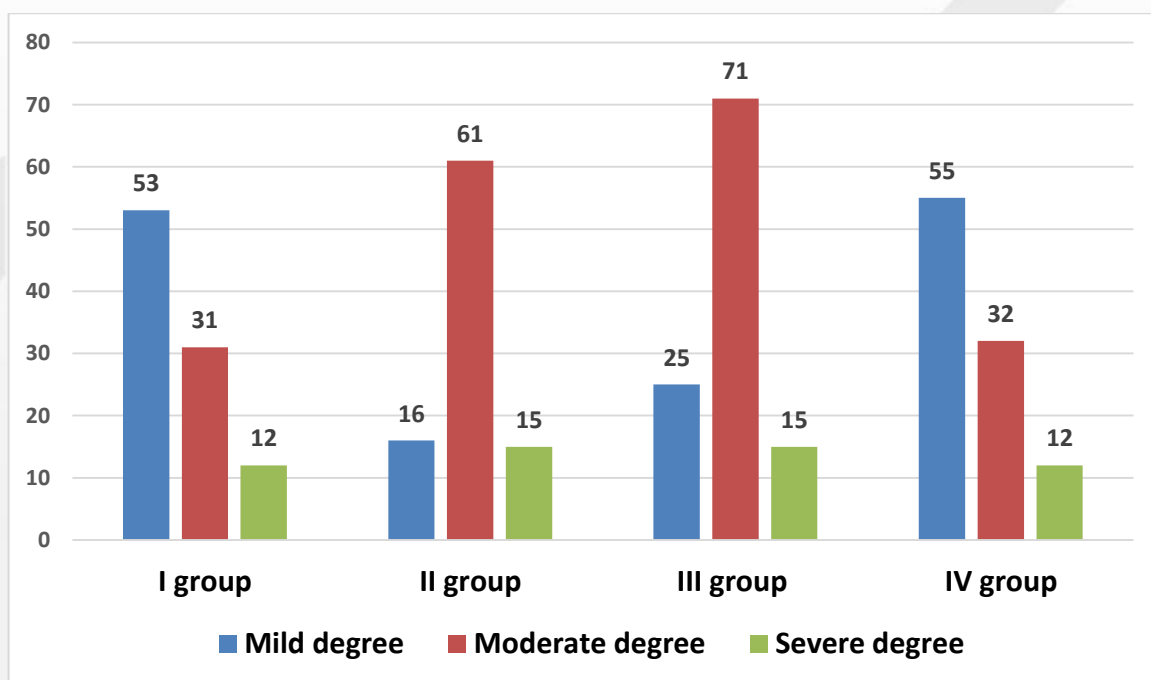


Fig. 1. Distribution of the severity of urination disorders by severity according to the IPSS questionnaire in four groups of patients.

Analysis of the results of the IPSSi questionnaire, completed independently and jointly with the attending physician (IPSSd), showed statistically significant differences ($p < 0.05$). The latter can be explained by a misunderstanding of the essence of the questions by patients when filling out the questionnaire on their own. (Fig. 1).

When questioning the respondents of group III ($n=111$) using EQd in the presence of a doctor, 25 (22.5%) men had a mild degree, in 71 (64%) cases there was a moderate degree of LUTS, and a severe degree of urination disorders occurred only in 15 (13.5%) patients (Fig. 1).

When self-completion of a valid questionnaire of EQ by patients of group IV, in 55 (55.6%) cases mild, in 32 (32.3%) - moderate, in 12 (12.1%) - severe degree of urination disorders (Fig. 1). Comparing the results of filling out the questionnaire for EQi and EQd, moderate and mild degrees of LuTS were noted in 86.5% and 87.9%, respectively. Severe LUTS were noted in 13.5% and 12.1% of patients in groups III and IV, respectively.

It should be noted that when comparing the results of filling out the questionnaire with an IPSSd and EPd, moderate and mild impairments were noted in 83.7% and 86.5%, respectively. At the same time, a severe degree of LUTS was noted in 16.3% and 13.5% of cases studied. Evaluation of the results on the scales of quality of life, statistically significant differences in all groups were not determined ($p > 0.05$).

Among patients of all groups, 12.8% ($n=51$) of cases had a mild degree of LUTS, 76.4% ($n=304$) of cases - moderate, and 10.8% ($n=43$) of cases - severe (Fig. 2).

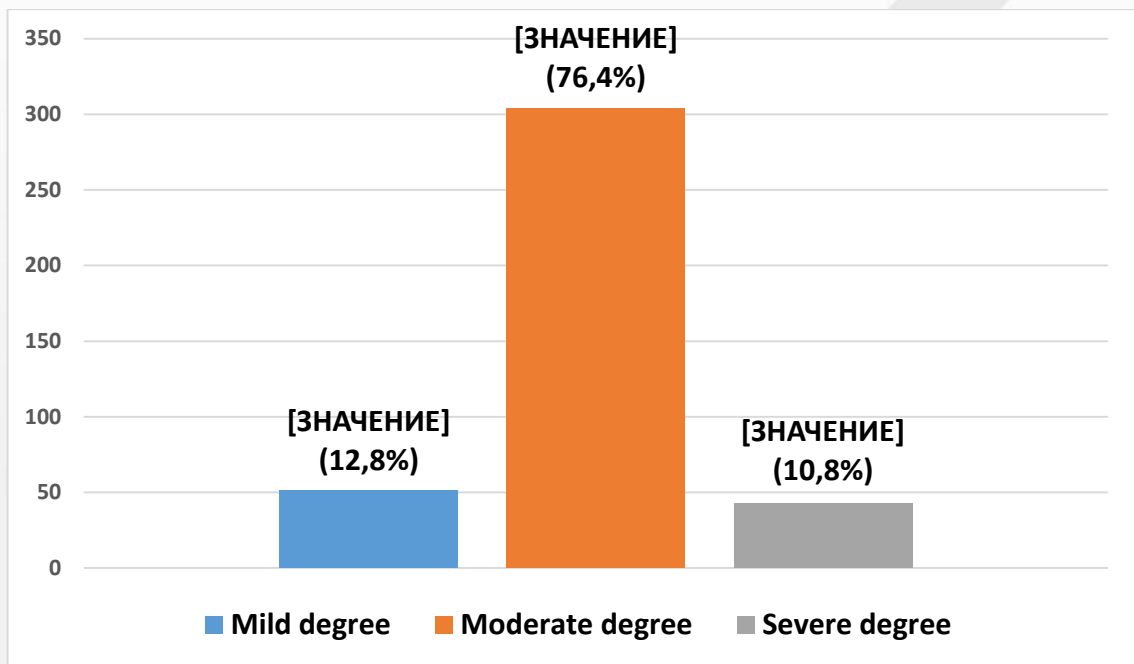


Fig. 2. Summary distribution of LUTS severity among all patients (n=398)

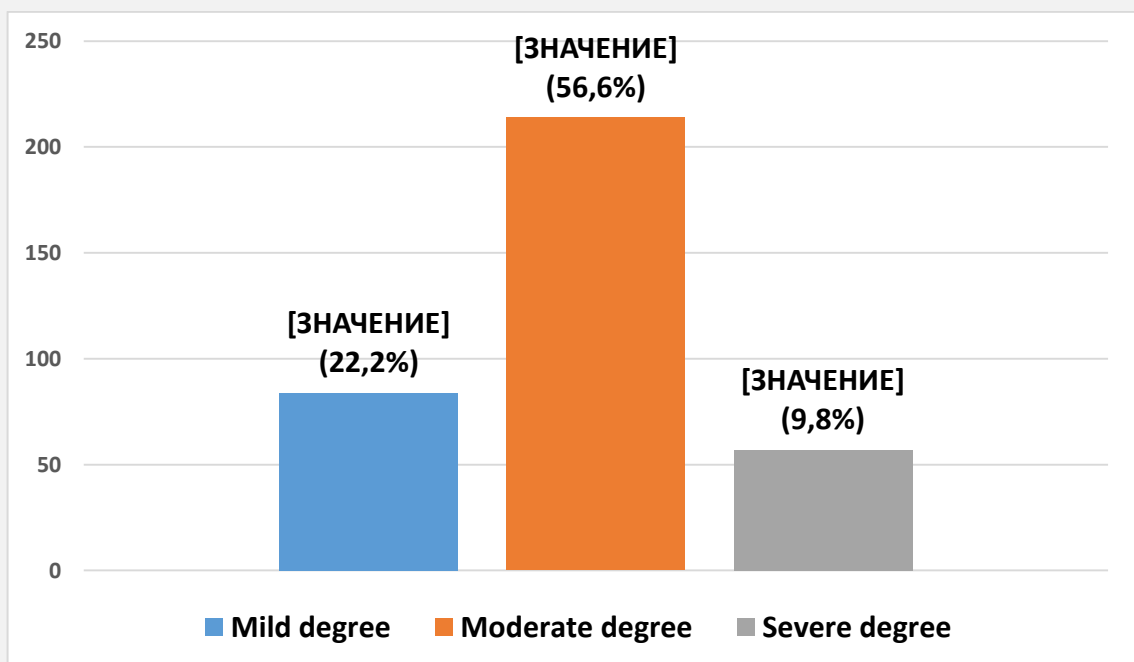


Fig. 3. Summary distribution of ED severity among all patients (n=378).

It should be noted that in patients who were surveyed for EQ, EF was also assessed at the same time, and not only the severity of LUTS. With regard to EF: mild erectile dysfunction (ED) was detected in 84 (22.2%) patients, moderate - in 214 (56.6%) and severe ED - in 57 (9.8%). 43 (11.4) patients could not assess their EF due to lack of sexual activity (Fig. 3).

In patients of group III, EF disorders were distributed as follows: mild erectile dysfunction (ED) was detected in 27 (24.3%) patients, moderate - in 65

(58.6%) and severe ED - in 19 (17.1%) , and in patients of group IV, mild ED was detected in 16 (16.2%) patients, moderate - in 60 (60.1%) and severe ED - in 23 (23.2%). In patients of group IV, who filled in the EPS on their own, the degree of EF impairment was higher than in patients of group III, which is apparently due to more direct answers to the questions of the program when filling it out on their own and concealing some symptoms when filling in the EPS with the help of a doctor. .

Based on the results obtained when filling out the questionnaire and the program, the tactics of treating patients were determined. So, over all patients with mild severity of LUTS and ED, a dynamic observation was established with an appropriate recommendation on lifestyle. Patients with moderate LUTS and ED received drug therapy. In severe LUTS, surgical treatment was recommended to eliminate bladder outlet obstruction, followed by correction of EF disorders if sexual activity was relevant for the patient.

Conclusion. Thus, the use of the developed EN can become an important tool in the evaluation of urination disorders and erectile function in patients with BPH. EN, unlike IPSS, promotes early detection LUTS and ED, contributing to the choice of tactics for the timely treatment of patients, leading to the maximum reduction in the cost of effective medical care for this category of patients.

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