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Mini-Review Article

Should International Prostate Symptom Score Solely Guide the Management of Benign Prostatic Hyperplasia?

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Abstract

Benign Prostatic Hyperplasia (BPH) is the most common cause for Lower Urinary Tract Symptoms (LUTS) in older men. Definitive indications for BPH surgery have been clearly described. However, the majority of BPH patients need treatment to relief of these voiding symptoms. Hence, current algorithms suggest utilization of a validated symptom score questionnaire, usually International Prostate Symptom Score (IPSS), to classify patients by the severity of their LUTS. Presence of severe symptoms is accepted as a reasonable indication for BPH surgery. However, IPSS has several drawbacks. First of all, IPSS is not a Quality of Life (QoL) scale and treatment decision for BPH patients should in fact include QoL assessment. IPSS is also difficult and unclear for certain patients with lower education level. Therefore, results of IPSS should not be the only tool to direct the management policy for BPH patients.

Keywords: Benign Prostatic Hyperplasia; International Prostate Symptom Score; Lower Urinary Tract Symptoms; Prostate; Quality of Life

Introduction

The assessment of Lower Urinary Tract Symptoms (LUTS) is a complex issue. Many different disorders (overactive bladder, neurogenic bladder dysfunction, bladder tumor, urinary stone disease, trauma, aging and many other diseases) can be associated with LUTS. The high prevalence and the underlying multifactorial pathophysiology require accurate evaluation of LUTS in order to provide the best evidence-based care. Almost half of the men over fifth decade report presence of moderate to severe degree of LUTS [1,2]. Nevertheless, Benign Prostatic Hyperplasia (BPH) is the most common cause for LUTS in older men. Absolute operation indications for BPH involve recurrent urinary retention, recurrent urinary tract infections, bladder stones or diverticula, persistent macroscopic hematuria, and dilatation of the upper urinary tract with or without renal insufficiency. This group with a need of early surgery represents only a certain ratio of BPH patients. The majority of BPH cases presents with LUTS without these complications. Hence, the management of BPH usually targets the relief of these symptoms to improve quality of life. Thereby, current algorithms for BPH involve assessment of the degree of symptoms [3-7]. European Association of Urology recommends utilization of a validated symptom score questionnaire for the routine assessment of male LUTS in all patients and this form should be applied for re-evaluation of LUTS [8]. Moreover, contemporary treatment policy also depends on the stratification of patients by the severity of their LUTS [3-8].

International Prostate Symptom Score (IPSS) is the most widely utilized tool to measure lower urinary tract symptoms. It has 7 items that give a total score of 35, plus a single Quality of Life (QoL) question. It was validated to evaluate patients with BPH [9]. Up to now, it has been translated and validated for many different languages [10]. One of the most significant contributions of IPSS is to efficiently monitor treatment efficacy. According to the total IPSS, the severity of LUTS is usually graded as mild (077), moderate (8-19) and severe (20-35). Patients with mild symptoms should have no treatment even without any need for further investigation according to these guidelines. Additionally, severe symptoms and/or symptoms refractory to medical treatment constitute a reasonable indication for BPH surgery. Therefore, accuracy and reliability of symptom scores are very important. IPSS is currently the standard questionnaire for the objective assessment of LUTS throughout the world [5-9]. Although IPSS has gained an

extensive popularity, it has several drawbacks. These restrictions of IPSS may be so important that the decision making-process based on solely IPSS value may direct the physician for an inappropriate treatment modality for each unique patient. The current mini-review discusses mainly limitations and defects of this popular symptom score questionnaire for BPH.

Limitations of IPSS

First, bother instead of the symptom score related to the LUTS should be the key point in the management of BPH patients. Even the initial IPSS study presented that a certain percent of patients with severe symptom scores had none or little bother [9,10]. Therefore; it is clear that the degree to which the patient is bothered is more important than symptom score. In conclusion, the improvement of QoL should be the major objective for any proposed treatment modality for any disorder. Therefore, determination of impairment in the level of QoL due to increased LUTS for a unique patient should be the most logical way rather than just having an idea about the symptom severity in the management of BPH [11,12]. Furthermore, IPSS is not an accurate tool for QoL. A single QoL question of IPSS does not measure the real QoL status of the patient. A high IPSS does not always indicate a worse QoL for a particular BPH patient [11-14]. Consequently, it is more appropriate to use a BPH specific QoL tool in the management of these patients instead of relying solely on IPSS [15,16]. In my opinion, the major limitation of IPSS is that it is not a QoL scale and treatment decision for BPH patients should include QoL assessment.

Secondly, IPSS has also been claimed to be complex and unclear for the patients. It was observed that about one third of the patients were unable to complete the questionnaire [17]. It was proposed that a high reading ability (a grade 6 reading level according to Spache and Dale-Chall readability formulas) is needed to read and understand IPSS [18]. In an interesting study, it was shown that when the patients had been ordered not to mark any question that they did not understand, almost half of the patients failed to complete the questionnaire [19]. An Italian study also suggested that IPSS was difficult to understand, and less than half of the patients were able to fill it accurately [20]. Our observation on 200 patients who self-administrated the questionnaire without any help clearly showed that 29% of patients could not mark any of the items of IPSS [21]. Additionally, another 44% of the patients could not complete the form because of the difficulty of several questions which they did not understand at all. Nearly 70% of patients could not accomplish to complete the IPSS when it was self-administrated. Consequently, educational level of the particular patient, ignorance by the patient, and several other factors may affect result of the assessment. An incomplete questionnaire was reported to be more common among the patients with lower education in contrast to higher education as 77.5% versus 22.5%, respectively [19]. We also noted that the percentages of our patients who returned the form totally unmarked were 34% and 14% in patients with lower (elementary school education) and higher (university degree) educational levels, respectively. As a result, all of these observations concluded that IPSS is rather complicated and results might be inconclusive. On the other hand, physician administration to overcome the complexity caries the possibility of bias.

Thirdly, IPSS has also some other limitations. Intra-personal variability may occur. Even, IPSS was shown to be not BPH and sex specific. It can be used to evaluate LUTS in women [22,23]. On the other hand, IPSS may not show some components of LUTS. IPSS did not assess some symptoms (i.e., incontinence) for which there was a high prevalence [24]. Lastly, even the significance of IPSS in evaluating LUTS has been questioned by some authors. The efficacy of IPSS in order to predict bladder outlet obstruction was tested in 460 patients who were 41 to 88 years old [25]. They reported no correlation of the total, obstructive symptoms or irritative symptoms score with objective parameters, including the average and maximum flow rate, post-void residual urine, prostate size and Schäfer grade. The authors concluded that prostatic symptom scores are qualitative and using them to quantify the degree of obstruction or evaluate therapy is questionable. On the other hand, the major advantage of IPSS is that it can show the treatment success in BPH patients. Therefore, this form can be applied for re-evaluation of LUTS after medical or surgical treatment for BPH. However, in initial evaluation the results of IPSS may be inconclusive due to the several significant properties mentioned above.

Conclusion

The evaluation of LUTS associated with BPH remains a challenge in daily practice. Current guidelines usually suggest treatment strategies based on results of IPSS. Mostly, presence of severe symptoms is accepted as a reasonable indication for BPH surgery. However, IPSS has significant restrictions. First, IPSS does not measure BPH related QoL which is in fact more important for BPH patients. Secondly, IPSS is difficult and unclear for certain patients. Therefore, results of IPSS should not be used as a single tool to manage the BPH patients. It is more appropriate to add a BPH-specific QoL scale to determine at least the need of intervention for each particular BPH patient.

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