

Editorial

Unsolved Issues in Managing Benign Prostatic Hyperplasia

Benign prostatic hyperplasia (BPH) is one of the most common health issues related to quality of life in aged males. In the past, voiding symptoms and storage symptoms were all classified as BPH. During the past 20 years, most of the concepts and perspectives concerning the treatment modality of BPH have evolved. Currently, we recognize multiple aspects of BPH, such as anatomical enlargement of the periurethral gland, lower urinary tract symptoms (LUTS), and functional obstruction of the bladder outlet. Although these aspects may coexist, each is dealt with independently during treatment. Nocturia is regarded as another separate entity. At present, LUTS are considered to be the primary domain of BPH, and thus the primary treatment goal for BPH is directed toward relieving LUTS. According to the recent guideline from the European Urological Association, severe conditions including urinary retention, gross hematuria, urinary tract infection, and bladder stones are current indications for surgery [1]. "LUTS refractory to medical treatment" is also considered to be an indication for surgery. Otherwise, managements based on pharmaceutical agents currently constitute the baseline treatment strategy. Therefore, clinical practice patterns based on controlling LUTS occupy the bulk of BPH management. Consequently, the number of BPH surgeries declined significantly after the 1990s with the popularization of medical management while bigger prostates have become more common. This trend is true even in developing countries, where the aged population is increasing dramatically.

In this situation, is it justifiable to continue to follow up with medication when managing LUTS in BPH patients regardless of the degree of obstruction or prostatic enlargement? In other words, is it all right to prescribe medication or to watchfully wait for LUTS in patients with obvious bladder outlet obstruction (BOO) who do not complain of significant LUTS? It is clear that, from the perspective of a long-term period, medical management in BPH, by its nature, has a role in maintaining the status quo of BPH, which is similar to the medical management of diabetes or hypertension, but does not have a role in curing BPH. Therefore, at this point, we need to recognize at least two critical characteristics of BPH patients. First, there is only one direc-

tion of clinical progression, which is increasing prostate size as men age. Second, the chances for multiple morbidities such as neurodegenerative or cardiovascular problems will increase as these patients age. This increases anesthesia-related risks when surgery is considered. Such risks will also be further increased by polypharmacy problems and the consequent possibility of complex adverse events secondary to drug interactions among multiple medications. There is a higher chance of urinary retention in patients with an enlarged prostate or functional obstruction at baseline. Suppose that these patients with initial medical management are followed up for 15 years, for example, and experience multiple episodes of urinary retention. These patients may end up undergoing surgery later in life. The patients may then experience greater risks with surgery owing to multiple comorbidities, multiple medications, and poorer general performance.

Currently, the most significant problem in surgical treatment is that there are no clear cutoff criteria for deciding between medical and surgical treatment. Current indications for surgery are rather narrow and not specific. "LUTS refractory to medication" is rather vague and very subjective to both patients and urologists. The meaning of BOO as an indication for surgical treatment is not clear and is not included in the criteria for surgery. This is because the treatment goal is mainly focused on the relief of LUTS. Quite often, secondary functional changes in the urinary bladder, such as detrusor overactivity, decreased bladder compliance, and decreased bladder capacity, are caused by BOO. Although it is not difficult to determine the presence of BOO by performing pressure flow studies in patients with BPH, pressure flow studies are not commonly performed by urologists. Is suprapubic cystostomy or chronic catheter indwelling the last stop for patients with end-stage BPH who have acquired neuropathy or significant comorbidity while undergoing long-term medical management? Can minimally invasive procedures offer relief to the patient?

Traditional transurethral resection of the prostate (TURP) has proven efficacy and is considered to be the gold standard treatment option for patients with mild to moder-

ate BPH. It is true that the current trend in BPH surgery is directed toward minimally invasive modalities. The review article [2] in this issue of the *Korean Journal of Urology* provides updated information on minimally invasive modalities using lasers. The potassium titanyl phosphate laser is an alternative to TURP in men with moderate-to-severe LUTS and is continuing to evolve with improved vaporization efficacy. The minimal bleeding complications and therefore shortened catheter time and hospital stay are advantageous for surgically risky patients. Holmium laser enucleation is believed to be a very reasonable option for larger prostates because its surgical principle is an identical endoscopic version of open prostatectomy. Therefore, it is a minimally invasive treatment modality in patients in whom open prostatectomy would otherwise be indicated. With the advent of various laser modalities, we need to reconsider the complications and risks following surgery. With the availability of effective minimally invasive surgical modalities at hand, a paradigm shift in practical treatment guidelines for BPH appears to be inevitable: from LUTS-oriented medical treatment to a more objective parameter-guided surgical treatment. This may offer a much higher chance of curative treatment for BPH patients. In this sense, BPH patients should be classified into high-risk and low-risk groups.

High-risk patients are those who will ultimately need surgery later in life. In this group of patients, surgery can be offered earlier, which can therefore hasten the possibility of cure of bothersome LUTS and BOO. Clinical parameters that can be effective for such differentiation should be developed in the future. It is necessary for us to be prepared to treat the high-risk BPH population with larger prostates who have multiple comorbidities and thus are more complicated to treat.

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