

Medical Treatment of Benign Prostatic Hyperplasia



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KEYWORDS

• BPH • LUTS • BOO • Alpha-1 antagonist • Male • Urinary retention

KEY POINTS

- Selective alpha-1 antagonists (eg, Tamsulosin) are safe, effective, and fast-acting first-line BPH treatment that targets voiding and storage LUTS
- 5-alpha reductase inhibitors (eg, finasteride, dutasteride) are effective mono- or combination for men with large prostates and/or urinary retention
- Anticholinergics (eg, oxybutynin, tolterodine, solifenacin) combined with alpha-1 antagonists can target storage-LUTS with low rates of causing urinary retention
- Men with erectile dysfunction and/or desire to preserve sexual function can start tadalafil monotherapy for BPH/LUTS

INTRODUCTION

Benign prostatic hyperplasia (BPH) and its associated is one of the most common diagnoses seen by the urologist, with previous studies estimating greater than half of the men having at least one symptom of lower urinary tract symptoms (LUTS),¹ with the prevalence increasing as our population ages with the majority of men older than 70 having BPH/LUTS.² Over the last 2 decades, we have seen a decrease in surgical management and an increase in medical BPH management across the United States, especially with increasing patient age at the time of diagnosis.³

An enlarged prostate by itself is not an indication for treatment, but it is rather the symptoms and impact on the quality of life (QoL) that bring patients to the urologist. While many of these symptoms may be mild, by the time a man presents to the urologist, they have generally crossed the threshold into bothersome. While the primary issue of BPH was first believed to be solely from bladder outlet obstruction (BOO), we know now

that LUTS is more complex and a combination of both voiding and storage issues. The gold standard to assess LUTS is with the international prostate symptom score (IPSS; **Table 1**), which has been validated extensively and features both voiding and storage symptoms (ie, overactive bladder). While symptom relief and patient perception of treatment efficacy is inherently subjective, a score improvement of 4 points is often considered a significant improvement in most men.⁴

ALPHA-ADRENERGIC ANTAGONISM

The prostate contains a large amount of smooth muscle which responds to alpha-adrenergic stimulation by increasing the prostatic urethral resistance, by blocking this stimulation we can induce relaxation to lessen bladder outlet resistance. The bladder and prostate contain mostly alpha-1 receptors which led to the development of our arsenal of selective blockers. While most alpha-1 blockers in use today are well-tolerated, their side effect profile stems from the alpha blockade both in the prostate and systemically. Generally,

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Urol Clin N Am 49 (2022) 231–238

<https://doi.org/10.1016/j.ucl.2021.12.003>

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