

# Case Study Treatment of Benign Prostatic Hyperplasia



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## Introduction

BPH is a disease which results in the appearance of a characteristic spectrum of lower urinary tract symptoms (LUTS) which comprise 'voiding' symptoms directly due to the outflow obstruction such as reduced urinary flow or hesitancy during voiding and 'storage' symptoms due to secondary effects on the bladder which include increased day-time and night-time urinary frequency and urgency [1-3]. It is a histologic diagnosis that refers to the proliferation of smooth muscle and epithelial cells within the prostatic transition zone [4,5]. BPH also called lower urinary tract symptoms (LUTS) as characterized by lower urinary tract symptoms is a common condition in the elderly male population and very common in men age >50 years [6]. The relationship between LUTS and sexual dysfunction has been controversial [7]. Other study showed the relation between erectile dysfunction (ED) and ejaculation disorders dysfunction (EjD) are related to increasing age and the severity of LUTS [8,9-12].

LUTS are strongly associated with sexual dysfunction and spoil sex life, more ever the prevalence of erectile dysfunction and reduced ejaculation increases with the severity of LUTS [6]. Emerging clinical evidence suggests that the 'storage' symptoms of BPH, particularly increased night-time frequency (nocturia) are the most bothersome to the patients and result in a greater reduction in quality of life than the 'voiding' symptoms. Thus a drug which relieves the 'storage' symptoms of BPH either alone or in combination with a drug which targets the 'voiding' symptoms e.g. an alpha adrenergic receptor antagonist would be expected to confer a therapeutic benefit [13]. Traditionally; the primary goal of treatment has been to alleviate bothersome LUTS that result from prostatic enlargement. More recently, treatment has additionally been focused on the alteration of disease progression and prevention of complications that can be associated with BPH/LUTS [14]. A variety of pharmacologic classes are employed including alpha-adrenergic antagonists (alpha-blockers), 5-alpha- reductase inhibitors (5-ARIs), anticholinergics and phytotherapeutics.as suggested by AUA BPH treatment guideline [15].

Although doxazosin and terazosin require dose titration and blood pressure monitoring, they are inexpensive, are dosed once daily, and appear to be equally effective to tamsulosin and alfuzosin. In addition, they have generally similar side effect profiles, except ejaculatory dysfunction which has been reported less frequently with alfuzosin. Moreover, these older agents do not appear to increase the risk of the intraoperative floppy iris syndrome (IFIS), and doxazosin has demonstrated efficacy relative to placebo over four years of follow-up. The Panel wishes to remind clinicians that these agents remain excellent choices for the management of bothersome LUTS attributed to BPH [14].

It has been documented that alfuzosin, doxazosin, tamsulosin, and terazosin are appropriate and effective treatment alternatives for patients with bothersome, moderate to severe LUTS secondary to BPH (AUA-SI score  $\geq 8$ ). Although there are slight differences in the adverse events profiles of these agents, all four appear to have equal clinical effectiveness. As stated in the 2003 Guideline [14,15]. A variety of pharmacologic classes are employed including alpha-adrenergic antagonists (alpha-blockers), 5-alpha- reductase inhibitors (5-ARIs), anticholinergics and phytotherapeutics [14,15]. Many studies showed treating BPH patients with either single or combined drugs illustrate that the main concern is in choosing the correct medical treatment for BPH and even so the choice of drug is truly complex and ever-changing [16,17].

## Method

### Case Report

We present here a case of 60 year male who was hospitalized for voiding Dysfunction catheter was implanted for eight days during that period patient was giving 4.0 mg doxazosin mesylate (Cardura) for eight days after being diagnosed as BPH patients. Catheter was removed and patient kept on 2.0 mg doxazosin mesylate for three month where after new protocol for treatment was followed by giving patient dose of alfuzosine 10.0 mg and finassteride 5.0 mg daily for 18 month afterword patient was given tamsulosin 0.4 mg once daily.

## Results

Results of the three protocols treatments were as follow .Protocol number one revealed improvement of voiding dysfunction however, patient suffered from severe blood pressure drop. Meanwhile the result of protocol number two patient showed stable blood pressure however, other symptoms were developed as incidence of ED, decreased libido and abnormal ejaculation. The third protocol revealed more stable condition considering blood pressure and ED however, patient showed abnormal ejaculation.

## Discussion

The primary goal of this study was to trigger out the best treatment to alleviate bothersome LUTS that result from prostatic enlargement. More recently, treatment has additionally been focused on the alteration of disease progression and prevention of complications that can be associated with BPH/LUTS treatment [14,15]. Many studies showed that a variety of pharmacologic classes were employed for BPH treatment including alpha-adrenergic antagonists (alpha-blockers), 5-alpha-reductase inhibitors (5-ARIs), anticholinergics and phytotherapeutics [14-16]. Many studies showed that the main concern of treating BPH patients with either single or combined drugs is in choosing the correct medical treatment for BPH and even so the choice of drug is truly complex and ever-changing [17]. In this case study patient was treated with three different drugs where he started on doxazosin mesylate 4.0 mg while he was hospitalized followed by combination of alfuzosine 10.0 mg and finasteride 5.0 mg due to drop in his blood pressure for eighteen month afterward he was recommended to stay on tamsulosin 0.4mg. The effect of each drug revealed different symptoms which are in agreement with other studies [14-16] where treating BPH patients with either single or combined drugs illustrate that the main concern is in choosing the correct medical treatment for BPH and even so the choice of drug is truly complex and ever-changing [16] which is supportive with results of this case study.

## Conclusion

The results obtained in this study indicated that choosing the correct drug of is complex and the main concern is in choosing the correct medical treatment.

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