

# Safety and efficacy of tamsulosin, alfuzosin or silodosin as monotherapy for LUTS in BPH – a double-blind randomized trial

## Abstract

### Introduction

Currently alpha1-adrenoceptor blockers (AB) are widely used as first-line therapy to improve lower urinary tract symptoms (LUTS) associated with benign prostatic hyperplasia (BPH). We compared the efficacy and safety profile of tamsulosin, alfuzosin and silodosin in LUTS due to BPH.

### Material and methods

Consecutive consenting male patients (N = 269) undergoing medical management of BPH with AB from February 2012 to October 2015 were enrolled. Patients were randomized to a 0.4 mg tamsulosin (group T), 10 mg alfuzosin (group A) or a 8 mg silodosin (group S) by double-blind randomization. All patients were assessed for improvements and post-void residual urine (PVR) and for adverse drug events (ADE).

### Results

IPSS showed significant improvement in Group S at the first week ( $11.7 \pm 4.18$ ,  $p = 0.027$ ) and at 3 months ( $7.97 \pm 3.84$ ,  $p = 0.020$ ). QOL showed significant improvement at 1 ( $2.2 \pm 0.76$ ,  $p = 0.020$ ), 4 ( $1.47 \pm 0.63$ ,  $p < 0.001$ ) and 12 ( $1.2 \pm 0.66$ ,  $p < 0.001$ ) weeks in Group S. The mean Qmax improvement was the maximum ( $13.76 \pm 2.44$ ,  $p = 0.028$ ) in Group S at 1 week. Reduction in PVR was the maximum in Group S, but it was not statistically significant. Adverse drug events (ADE) were observed in 20.07% (54/269) patients and distribution was similar in the three groups with decreasing incidence with progression of time.

### Conclusions

Silodosin is the most efficacious AB with rapid onset of action. Silodosin also improves the quality of life in patients with LUTS due to BPH and objectively improves maximum flow rate. However, silodosin has more adverse events when compared to tamsulosin and alfuzosin.