Abstract

**Aims and Objectives** - The objective of this study was to assess the effect of the uroselective $\alpha_1$-blocker Tamsulosin on urodynamic parameters and quality of life in male patients with Type I primary bladder neck obstruction (PBNO).

**Materials and methods** - It is a single centre prospective observational study done in Department of Urology in CMC Vellore from July 2013 to December 2014. Sample size was calculated based on the study by Chang et al keeping alpha and beta error 5% and 20% respectively. The calculated sample size was 28 patients. All male patients in age group between 18-50 years being diagnosed with type I PBNO (High pressure low flow) after Video urodynamic study were recruited in the study. All patients had cystoscopy to rule out urethral stricture. Patients who had diabetes mellitus, psychiatric illness, neurological disease, allergy to tamsulosin, previous pelvic surgery and those having absolute indication for surgical intervention (presence of obstructive nephropathy or uropathy) were excluded from the study. All of them were started with Tablet Tamsulosin 0.4 mg once at bed time for 3 months. Urodynamic study, IPSS score, Uroflow were repeated after 3 months and data’s collected. Primary outcome was defined as decrease in $p_{det}Q_{max}$ by 15%. The secondary outcomes were defined as increase in $Q_{max}$ by 2.5 mL/s, IPSS reduction by 25%, improvement in Quality of life index, decrease in post void residual urine volume and decrease in bladder outlet index below 40.

**Results**: Total of 39 patients were included in the study. 21 patients completed the follow up as per protocol. Mean age group of these 21 patients was 41 years. Mean
prostate volume was 13 cc. Relative to baseline, there was reduction in the median I-PSS (from 22 to 12), median QOL (from 5 to 4), median post-void residual urine (from 82ml to 50 ml), an increase in median maximum flow rate (from 8 to 10 ml) after 3 month of treatment. 57 % achieved the primary outcome i.e. decrease in pdetQmax by 15 %.80 % patients had more 25 % improvement in their IPPS .52% patients had A-G less 40 after the treatment. 47 % complained of abnormal ejaculation and 14 % complained of transient giddiness.

**Conclusion-** Our clinical study shows statistical significant improvement of both the clinical and urodynamic parameters after treatment with Tab Tamsulosin– alpha 1a receptor blocker. It also shows that the patients who have A-G no between 40-60 before treatment are more likely to benefit with the alpha blockers.