

Introduction and aim of Study

*Posterior Tibial Nerve Stimulation (PTNS) is a well-known treatment option for overactive bladder (OAB) not responding to conventional treatment¹⁻³.

*Herein, our aim is to assess the significance of Urodynamic proven Detrusor Overactivity (DO) on the outcome of PTNS in patients with OAB syndrome.



Methods and Materials

•Single center, retrospective study, reviewed the medical charts of all adult patients with OAB with or without detrusor Overactivity (DO) who underwent Posterior Tibial Nerve Stimulation (PTNS) in our center between January 2012 until December 2018.

•Hospital Institutional review board was obtained before starting the study. Patients' demographic data, diagnosis, voiding diary pre and post Posterior Tibial Nerve Stimulation (PTNS) treatment, and outcome collected. All patients had baseline investigations (urine analysis, serum Creatinine, Urodynamic study, Renal Ultrasound).

•Each Patient had to fill a voiding diary and quality of life questionnaire at the beginning of therapy (Week 0) and after completion of the initial weekly therapy (week 12).⁴

•The success of treatment was defined as 50% or more improvement of voiding dysfunction symptoms in voiding diary.⁵

•PTNS was continued for 24 sessions in patients who showed 50% improvement or more of symptoms after 12 sessions. Patients who were considered as success completed another twice/month sessions for three months then once/month sessions for another 6 months (total of 12 Months therapy).⁵

Results

•Forty-nine patients (35 female and 14 male) with a mean age of 43 years (range 18-77) were included. Two patients were excluded from the study because no urodynamic study was done.

•Twenty-nine patients (59.2%) had no DO and 20 patients (40.8%) had DO.

•PTNS treatment showed an overall success rate of 61.5%.

•In OAB patients with no DO, 15 patients (51.7%) had improvement, while 16 OAB patients with DO (80%) had Improvement.

•There is a statistical significant difference between the outcomes in both groups ($p < 0.05$).

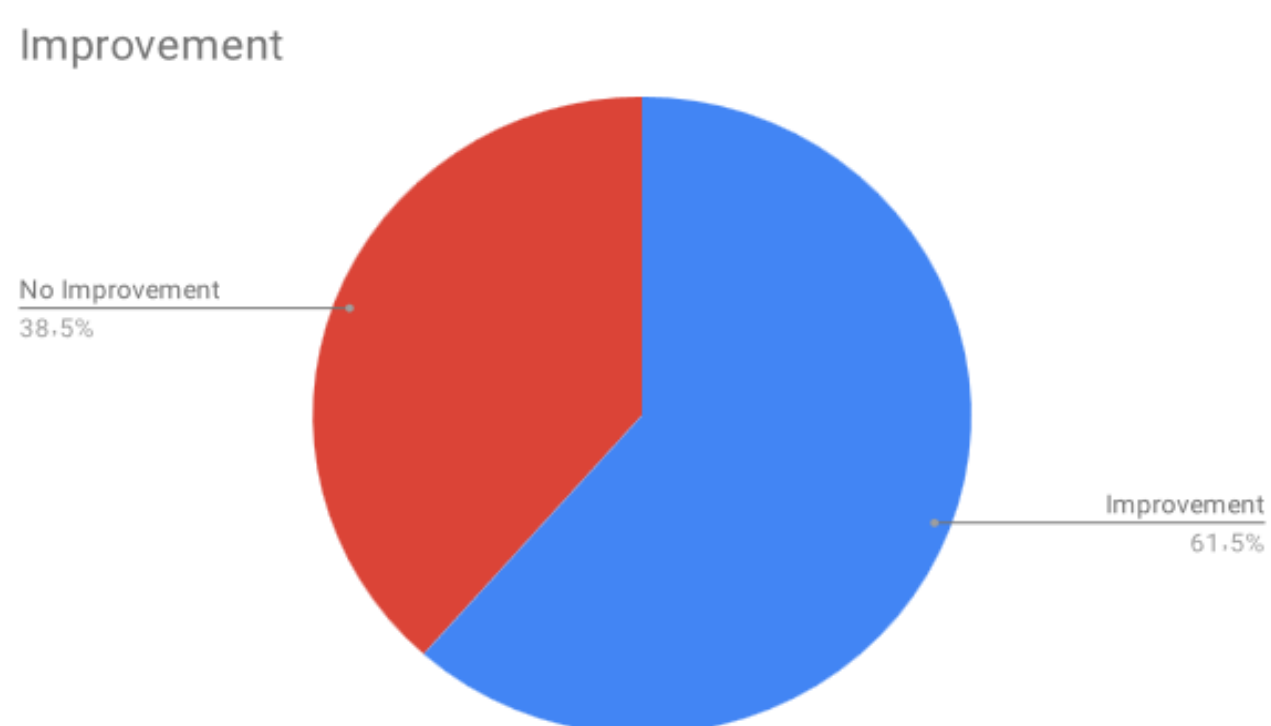


Fig.1: PTNS overall success.

Results

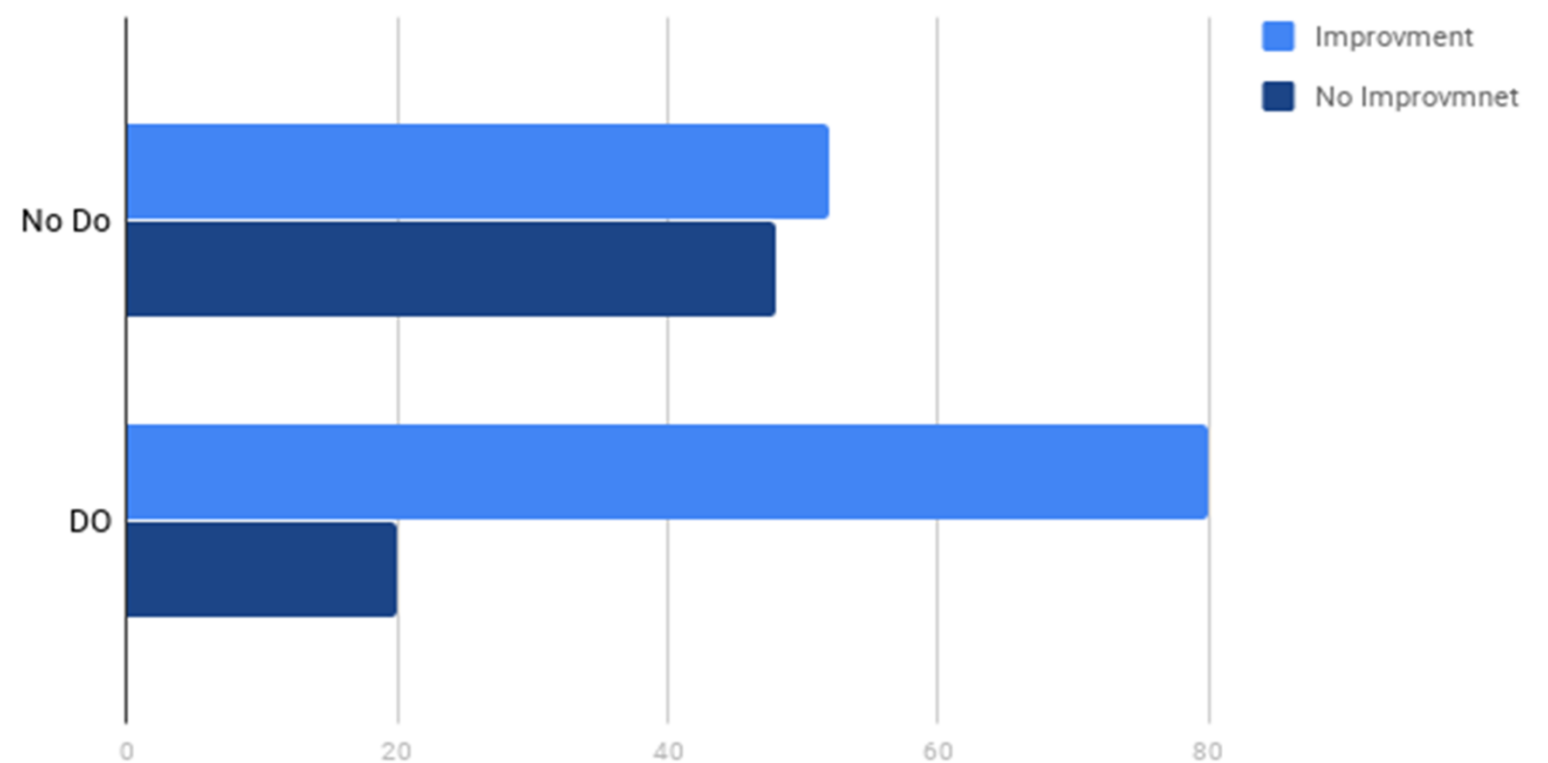


Fig.2 Results according to presence of DO or not

OAB with (UDS) DO

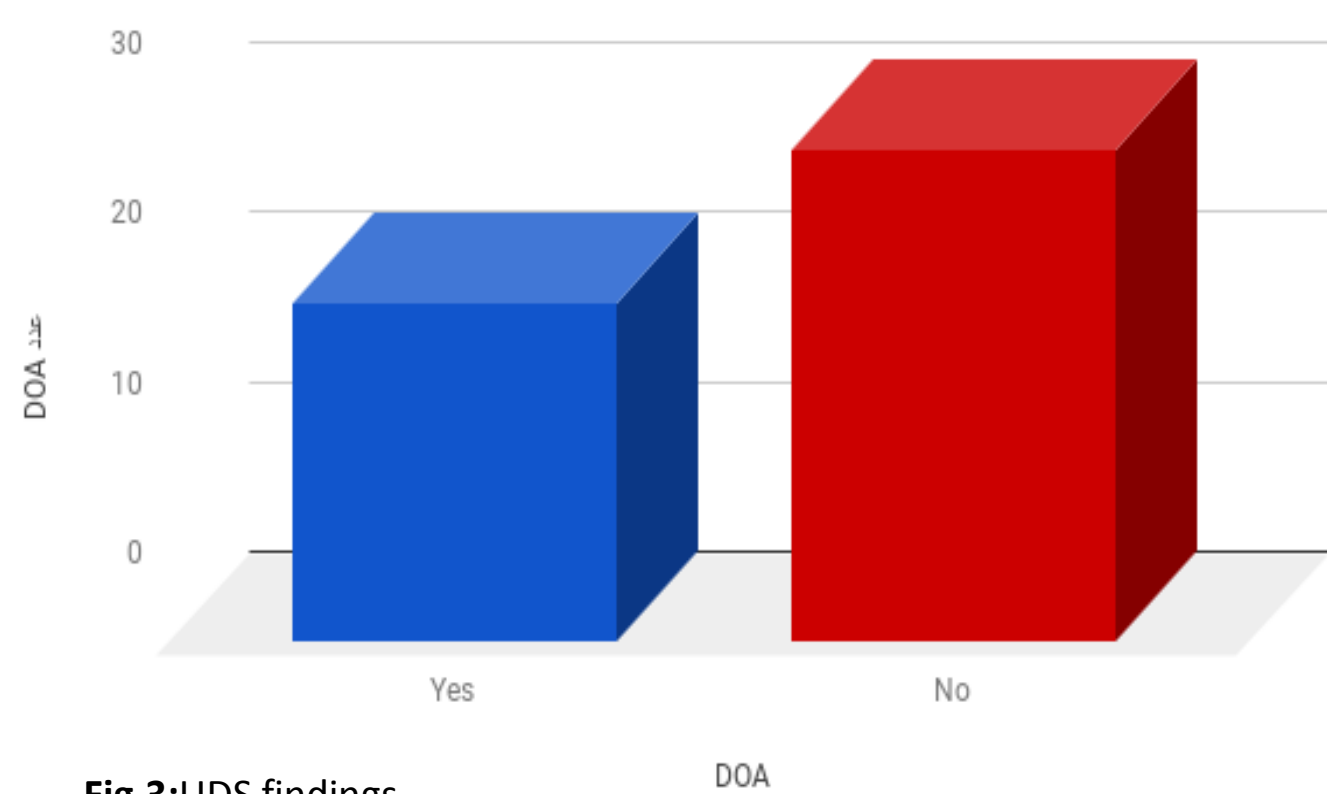


Fig.3:UDS findings

Discussion

All patients have completed all sessions with no complications or significant side effects. Results showed that patients with proven detrusor Over activity by Urodynamic study have a statistically significant outcome over those who has urgency frequency syndrome without Urodynamic proven Over activity.

Conclusions

•In patients with OAB , an urodynamic proven Detrusor Over activity (DO) predicts posterior Tibial Nerve Stimulation outcome.

•Success rate is more frequently encountered after PTNS treatment in patients in whom urodynamic evaluation showed DO compared to those with negative DO on urodynamic (Urgency frequency syndrome).

Disclosure

•Nothing to disclose.

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