

## EVALUATION OF THE SHORT TERM OUTCOMES ON PERCUTANEOUS TIBIAL NERVE STIMULATION (PTNS) THERAPY AS AN ALTERNATIVE TREATMENT FOR PATIENTS WITH OVERACTIVE BLADDER SYNDROME WHO FAILED ORAL MEDICATION THERAPY.

### Hypothesis / aims of study

Overactive bladder syndrome (OAB) is a very common problem but not all patients respond well to oral medication therapy. Percutaneous tibial nerve stimulation (PTNS) therapy has been proposed as a new alternative, minimally invasive technique for OAB. PTNS is a peripheral type of neuromodulation by using an electrical stimulation via percutaneous needle to stimulate the posterior tibial nerve at the ankle level. This study is to evaluate the initial experience of PTNS for OAB patients refractory to oral medication.

### Study design, materials and methods

The study was conducted between June 2014 to March 2015. All patients at the age above 18 with the clinical diagnosis of OAB refractory to one or more oral medication therapy and agree for PTNS were recruited into the study. Before enrollment of PTNS, all oral medication therapy would be stopped. An urodynamic study would be done and patient is required to fill in a frequency volume chart, Overactive bladder symptom score (OABSS), Urogenital distress inventory (UDI-6) and Incontinence impact questionnaire (IIQ7). Patient then would undergo a thirty minutes weekly therapy for twelve consecutive weeks. Patients would then refill the assessment scores for evaluation.

### Results

During the period of June 2014 to March 2015, eight patients (1 male; 7 female) were recruited into the study. The mean age was 61 years old (26 – 76 years). The results showed a significant decrease in frequency and urgency after PTNS. The mean daytime voids decreased from 14.21 to 7.13. The mean number of nocturia decreased from 3.12 to 2.13. The number of urge incontinence episodes per day were significantly decreased from 2.75 to 1.30. The mean OABSS decreased from 14.0 to 9.00. The mean maximal voiding capacity increased from 110ml to 223ml and the mean minimal voiding capacity increased from 32ml to 106ml. The mean UDI-6 score decreased from 8.5 to 6.5, the mean IIQ-7 score decreased from 18.7 to 12.6. There were no complications or adverse events during or after PTNS. Overall improvements in symptoms were seen after PTNS.

### Concluding message

PTNS is an effective alternative treatment for OAB patients who failed oral medication therapy. It showed a significant reduction in the episodes of urge incontinence which causes the most inconvenience for patients. Patients find the procedure quite pleasant and they were pleased with the treatment outcomes. As a whole, the initial results were encouraging but long term outcomes need to be evaluated.

### Disclosures

**Funding:** No funding or grant **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics not Req'd:** This is a clinical trial and the have submitted to ethics committee but is still in progress **Helsinki not Req'd:** This is a new technology and has been used in late 1990s by Stoller **Informed Consent:** Yes