

PERCUTANEOUS POSTERIOR TIBIAL NERVE STIMULATION IN THE TREATMENT OF OVERACTIVE BLADDER: LONG TERM EFFECTIVENESS

Hypothesis / aims of study

The purpose of this study was to demonstrate the long term effectiveness of Intermittent Percutaneous Posterior Tibial Nerve Stimulation (PTNS) at 3, 6 and 12 months in the improvement of female overactive bladder (OAB) symptoms.

Study design, materials and methods

Two hundred and fifty-four patients with OAB symptoms submitted to percutaneous tibial nerve stimulation sessions were analyzed. We recorded history, physical and urogynecological examination before the treatment. The patients had weekly outpatient bilateral treatment session, each lasting 30 min. Data from Overactive Bladder Questionnaires (OAB-q) and voiding diaries were completed at baseline, at 3, 6 and 12 months. Subjects completed Global Response Assessments (GRA) at 3, 6 and 12 months.

Results

Of the 254 patients at baseline, 225 subjects completed the PTNS session at 3 months, 218 and only 188 patients continued PTNS therapy until 6 and 12 months respectively. The 3 months subject Global Response Assessment (GRA) for overall bladder symptoms demonstrated that PTNS subjects achieved statistically significant improvement in bladder symptoms with 78.4% reporting moderately or greatly improved responses from baseline ($p < 0.001$). Compared to 3 months results, subject's GRA showed a further improvement at 6 and 12 months, 85.3% and 87.7% respectively. The objective improvements in voiding diary parameters demonstrated at 3 months were sustained at 6 and 12 months. The change from baseline on the OAB-q at 3, 6 and 12 months showed statistically significant improvement in both symptoms severity and overall quality of life ($p < 0.001$). The mean number of PTNS treatments per month were as follows: 4 per month during initial 3 months of therapy, 2.3 per month from months 3-6 and 1.6 per month from months 6-12. No serious device related adverse events were reported.

Concluding message

Our experience suggest that PTNS therapy is safe and effective in long term treating OAB symptoms. The therapeutic effect is demonstrated in the early phase (3 months) of the treatment and it is sustained when we performed the prolonged therapy up to 12 months. PTNS may be considered a therapeutic option that is also minimally invasive and improves quality of life. Long-term follow-up studies are needed to verify these preliminary results.

Disclosures

Funding: NO SOURCE OF FUNDING OR GRANT **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** IT IS A RETROSPECTIVE STUDY **Helsinki:** Yes **Informed Consent:** Yes