

POSTERIOR TIBIAL NERVE STIMULATION IN THE ELDERLY: SUCCESS RATES AND CONCOMITANT TREATMENTS

Hypothesis / aims of study

Posterior tibial nerve stimulation (PTNS) has been recognized as one of the third line treatment options in the management of overactive bladder (OAB). OAB is a condition that affects many, with increasing prevalence with age. PTNS has shown to have good success, looking at large adult age ranges. However, the elderly population is unique, with increased medical comorbidities and the possibility for cognitive or functional deficits. To date, there is a paucity of studies looking at this specific patient population in regards to the PTNS treatment modality. The objective of our study was to evaluate the use of posterior tibial nerve stimulation in an elderly population, with response to treatment, concomitant therapies, and alternate treatments needed after therapy.

Study design, materials and methods

We performed a retrospective chart review of patients aged 65 or older undergoing PTNS at a single institution over a six-year period, with IRB approval. We examined clinicopathologic variables potentially associated with the outcomes of interest, which included response to treatment, use of combination therapy, and need for alternative therapies after PTNS.

Results

In total, 44 patients age 65 or older underwent PTNS between 2011-2017, 27 male (61%) and 17 female (39%). 42 patients underwent PTNS for urgency, frequency, or urge incontinence, while 2 patients had neurogenic bladder. 32 patients (73%) had utilized anticholinergic treatments prior, 4 used a beta-3 agonist, and 3 had intravesical botox injections. 31 patients (70%) reported improvement of their symptoms. 23 (52%) utilized combination therapy during PTNS; 15 used an anticholinergic (34%), 5 used a beta-3 agonist, and 1 had intravesical botox injections. 18 patients (40%) necessitated an alternate treatment after PTNS. Only 7 patients (16%) utilized an anticholinergic after PTNS, 5 used a beta-3 agonist, 4 had intravesical botox injections, and 2 required sacral neuromodulation. Of the patients who reported improvement with PTNS, average BMI was 24.1 kg/m² (range 21.2-33.3), while average BMI of patients without improvement with PTNS was 29.1 kg/m² (range: 18.6-45.2).

Interpretation of results

In our elderly population of patients undergoing PTNS for overactive bladder, we found the subjective response rate of 70% was well within the established success rates reported in the literature of 37-82%. While 52% of the patients used a concomitant treatment during PTNS therapy, only 40% required alternative treatment after PTNS. The anticholinergic use after PTNS was greatly decreased, 16%. We found that the BMI of patients without response to PTNS was higher than those with response, 29.1 vs 24.1 kg/m².

Concluding message

PTNS therapy is a durable, minimally invasive option for the elderly population, who may not be able to take pharmacotherapy for OAB, due to known side effects, ineffective action, and noncompliance.

Disclosures

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