

## OUTCOMES IN PATIENTS TREATED WITH POSTIRIOR TIBIAL NERVE STIMULATION FOR REFRACTORY OVERACTIVE BLADDER.

### Hypothesis / aims of study

The aim of this study was to evaluate the efficacy of percutaneous tibial nerve stimulation (PTNS) for the treatment of complaints related to overactive bladder syndrome: urinary urgency, urinary frequency, urge incontinence (UI), non- obstructive urinary retention.

It is also looking for a gold standard treatment and if it would has to be medical or more invasive (neuromodulation).

Many author has showed that patient's bladder control can be improved by stimulating the tibial nerve near the ankle and altering the function of the sacral nerves that control bladder function.

### Study design, materials and methods

Three hundred and seventy-seven consecutive patient with symptoms related to overactive bladder syndrome, refractory to antimuscarinic therapy, were enrolled in this study. Patient underwent 12 PTNS sessions: the system we used consist of a small 34-G needle electrode, surface electrode, lead wire and handheld electrical generator. The percutaneous needle is inserted approximately 2 inches (5cm) cephalad to the medial malleolus. After the lead wire and electrode are attached, the Stimulator is turned on and amplitude is slowly increased until the patient's large toe starts to curl, the toe digits fan out, or the entire foot extends, indicating proximity to the nerve bundle. The stimulator produces an adjustable electrical pulse that travels up to the sacral nerve plexus via the tibial nerve. Amplitude is then reduced slightly and treatment is continued for 30 minutes. Frequency/volume charts and I-Quol and SF – 36 questionnaires were completed at 0 and 12 weeks.

Success was analyzed by using subjective and objective criteria. Overall subjective success was defined as the willingness continue treatment, whereas objectives success was defined as a significant decrease (to<50%) in total number of leakage episodes.

### Results

All patients completed 6 weeks treatment (subjective success).

Two hundred and fifty-two of these patients (67%) were objectively responders after 12 sessions.

Only eight patients (2.1%) didn't show a significant decrease (<50%) in total number of leakage episodes. In 17 patients (4.5%) no significans improvements were observed. Quality of life parameters improved significantly

### Interpretation of results

Postirior tibial nerve stimulation was well tolerated by patients: no collateral effects were reported.

A significatly improvement in objectives symptoms was registred in the large part of patients: a few population demostred a reduction of leakage episodes superior to 50 %, that we can interpreted, however, as r a partial response.

Whereas in the smaller no responders population, would be proposed a longer period of treatment.

### Concluding message

We conclude that posterior tibial nerve stimulation is an effective, minimally invasive option for treatment of patients with complaints of urge incontinence as improvement was seen in subjective as well as objective paramenters

### References

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2. Urologia. 2002 Sep-Oct;(5):36-9
3. J Urol. 2001 Apr;165(4):1193-8.

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<b>Is this a clinical trial?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>The study didn't need ethics committee approval</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>