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## EFFECTIVENESS PERCUTANEOUS STIMULATION VERSUS TRANSCUTANEOUS POSTERIOR TIBIAL NERVE IN PATIENTS WITH OVERACTIVE BLADDER

### Hypothesis / aims of study

To evaluate the clinical improvement with posterior tibial nerve stimulation percutaneous or transcutaneous, in patients with overactive bladder.

### Study design, materials and methods

A descriptive and retrospective study, with review of medical records of patients diagnosed with overactive bladder, were valued in Pelvic Floor Unit from March 2010 to September 2012 and treated with posterior tibial nerve stimulation (PTNS).

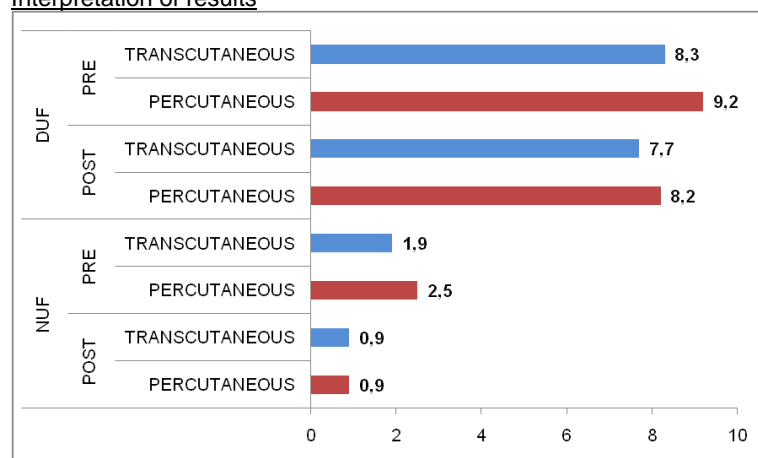
Patients over 18 years, diagnosed with overactive bladder and intolerance or poor response to antimuscarinic treatment, underwent posterior tibial nerve stimulation, received a weekly session for 12 weeks (30 minutes sessions each). Data was collected for 3 days voiding diary, Sandvik Test, International Consultation on Incontinence Questionnaire Urinary Incontinence Short Form (ICIQ-SF) and survey of satisfaction with treatment. Statistical analysis was performed with Mann-Whitney test, Chi Square, and a Poisson regression model analysis of variance, according to the characteristics of the variables.

### Results

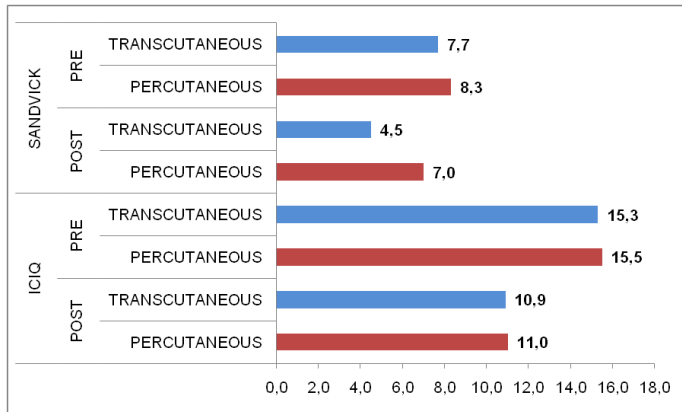
The study was focused on 34 patients, all women, mean of 64.5 years old, all of them treated with PTNS, 61.8% transcutaneous and 38.2% percutaneous. We observed improvement in nocturnal urinary frequency, and ICIQ-SF, Sandvik test ( $p < 0.001$ ), with no statistical difference between groups. All patients were satisfied with treatment and 100% completed treatment

	TRANSCUTÁNEOUS	PERCUTÁNEOUS
n= 34	61.8%	38.2%
Evolution time OAB	6.1 years	6.3 years
Training associated perineal	33.3%	30.8%

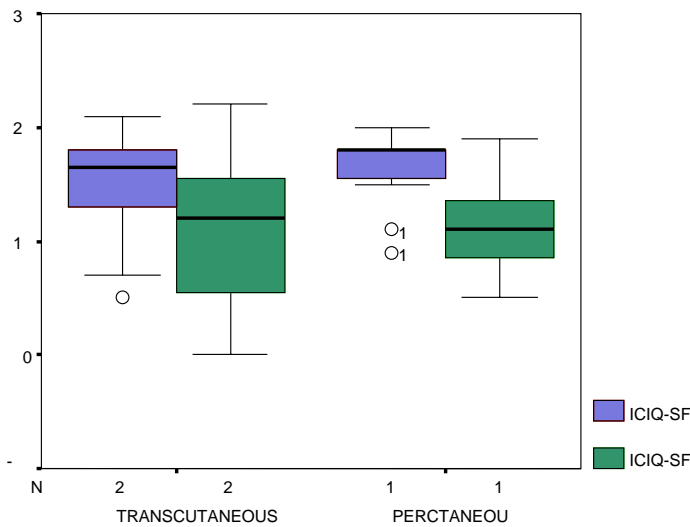
### Interpretation of results



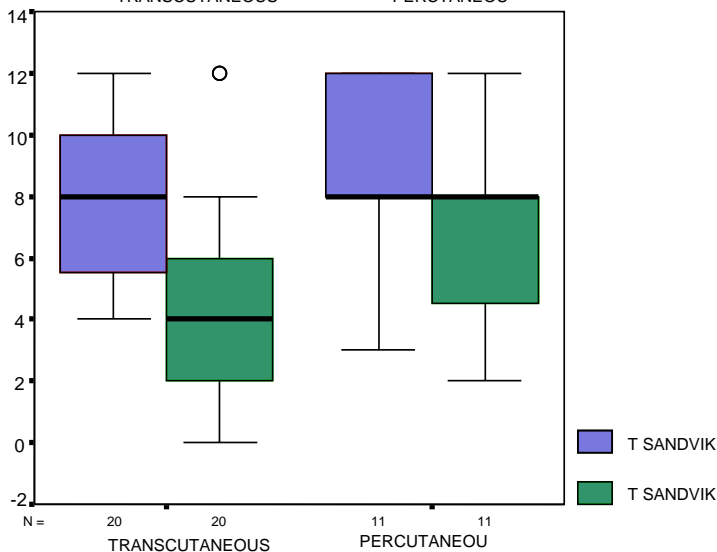
Mean diurnal and nocturnal urinary frequency (DUF, NUF), before and after treatment with percutaneous and transcutaneous PTNS. In NUF there is a statistically significant difference ( $p < 0.001$ ) between values before and after treatment, with no difference between groups.



Mean of Sandvik Test and ICIQ-SF before and after treatment with percutaneous and transcutaneous PTNS. Statistically significant difference ( $p < 0.001$ ) between values before and after treatment, with no difference between groups.



Sandvik test before and after treatment with percutaneous and transcutaneous PTNS. Statistically significant difference ( $p < 0.001$ ) between values before and after treatment, with no difference between groups



ICIQ-SF Test before and after treatment with percutaneous and transcutaneous PTNS. Statistically significant difference ( $p < 0.001$ ) between values before and after treatment, with no difference between groups.

**Concluding message**

The posterior tibial nerve stimulation is considered a simple, minimally invasive, easy to apply and well tolerated that has proved an effective method of treatment, with no notable side effects, improving the quality of life of patients with adequate adherence, all of that leads to recommend its use in Pelvic Floor Unit. We could not demonstrate that stimulation of the posterior tibial percutaneous was more effective than transcutaneous.

**Disclosures**

**Funding:** The authors declare no conflict of interest and follow current ethic rules. **Consent:** Yes **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It is not necessary **Helsinki:** Yes **Informed Consent:** Yes