

EFFICACY OF UNILATERAL Vs BILATERAL PERCUTANEOUS TIBIAL NERVE STIMULATION IN WOMEN WITH IDIOPATHIC OVERACTIVE BLADDER: A RETROSPECTIVE STUDY

Leticia R., Borja L., Carlos F., Ángela S., Francisco L., Patricia S., Carlota E., Higinio R.
Complejo Hospitalario Universitario Pontevedra, Spain • ICS 2026 Maastricht • Abstract #720

Introduction & Objectives

- Overactive bladder (OAB) is highly prevalent in women and severely impacts quality of life.
- Posterior tibial nerve stimulation (PTNS) is effective for OAB refractory to pharmacotherapy.
- While transcutaneous PTNS has shown non-inferiority to percutaneous PTNS, no studies have compared unilateral vs. bilateral percutaneous stimulation.
- Aim: Compare the efficacy of unilateral versus bilateral percutaneous PTNS in women with idiopathic OAB.

Material & Methods

- Design: Retrospective comparative cohort study of 51 women with idiopathic OAB.
- Group 1 (Unilateral pPTNS): n=25.
- Group 2 (Bilateral pPTNS): n=26.
- Protocol: Weekly 30-min percutaneous sessions using a 26G/3-5cm needle at 20 Hz for 12 weeks.
- Assessments (Baseline vs. Week 12):
 - 3-day bladder diary: daytime frequency, nocturia, daily incontinence episodes (IUU).
 - Validated Questionnaires: OAB-V8 and ICIQ-SF.
 - Patient Satisfaction: 5-point Likert scale.

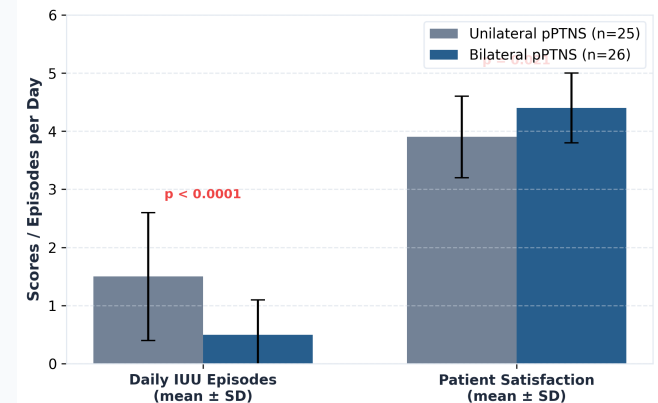
Baseline Parameter	Unilateral	Bilateral	p-value
Mean Age (SD)	56.48 (5.8)	56.70 (4.7)	0.906
Mean BMI (SD)	24.40 (2.2)	24.90 (2.5)	0.456
Caffeine / Tea Yes (%)	9 (45.0%)	11 (55.0%)	0.645
Postmenopause Yes (%)	15 (42.9%)	20 (57.1%)	0.193

Parameter (Pre / Post)	Unilateral	Bilateral	p-value
FMD (Daytime Freq.)	10.3 / 5.8	10.5 / 5.9	0.666
FMN (Nocturia)	2.3 / 0.7	2.2 / 0.9	0.420
OAB-V8 Score	25.4 / 5.2	25.9 / 4.81	0.442
Daily IUU Episodes	1.5 (1.1)	0.5 (0.6)	<0.0001*
Likert Satisfaction	3.9 (0.7)	4.4 (0.6)	0.021*

Key Clinical Takeaways:

- ✓ No statistical differences in daytime frequency, nocturia, or OAB questionnaires post-treatment.
- ✓ Bilateral stimulation achieved significantly greater reduction in daily leakage episodes (0.5 vs 1.5, $p<0.0001$).
- ✓ Patient satisfaction was significantly higher in the bilateral cohort (4.4 vs 3.9, $p=0.021$).

Statistically Significant Clinical Outcomes ($p < 0.05$)



Concluding Message

- Both unilateral and bilateral percutaneous PTNS are highly effective overall for women with idiopathic OAB.
- Bilateral therapy offers superior control of daily urinary incontinence episodes and significantly higher patient satisfaction.
- Further prospective randomized controlled trials are required to validate these findings.

Disclosures & Ethics

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Ethical Committee: Approved by local institutional ethics committee.