

# Advancing the Diagnosis and Management of Pudendal Nerve Entrapment: The Role of Neurophysiological Studies and Imaging-Guided Infiltrations

→ Neurophysiological study and Imaging-guided PNI are essential and highly reliable tools for diagnosing PNE.

→ Imaging-guided PNI is a valuable predictor of surgical outcomes.

Fernandes C<sup>1</sup>, Saavedra M<sup>2</sup>, Viegas V<sup>3</sup>, Casado J<sup>2</sup>, Sánchez A<sup>2</sup>, Velasco C<sup>2</sup>, Alberto A<sup>4</sup>, Cidre M<sup>4</sup>, Luque C<sup>2</sup>, Cabañes L<sup>4</sup>, San José L<sup>2</sup>, Lopez-Fando Lavalle L<sup>2</sup>

1. Centro Hospitalar e Universitário do São João, 2. Hospital Universitário La Princesa, 3. Hospital Universitário Puerta de Hierro Majadahonda, 4. Hospital Universitário Ramon y Cajal

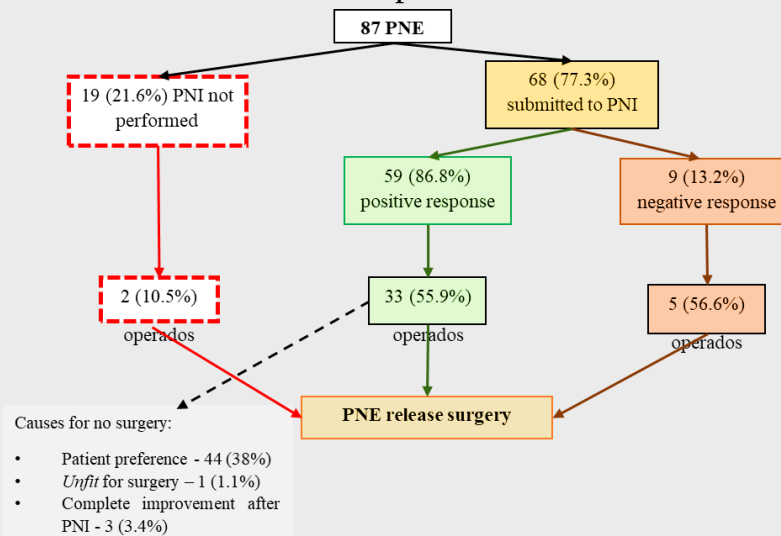
**Background:** Pudendal nerve entrapment (PNE) diagnosis is not standardized.

## Goals:

- Find the role of neurophysiological study (NFS) and Imaging-guided pudendal nerve infiltration (ImPNI) in PNE diagnosis and patient selection for surgery.
- Evaluate the predictive power of NFS and ImPNI

## Methods:

- retrospective, multicentric study
- A visual analogue scale (VAS) was used to assess intervention response.



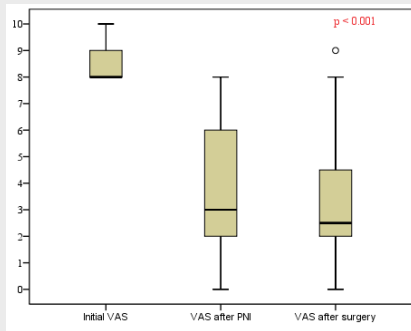
References:

1. Luesma MJ, Galé I, Fernando J. Diagnostic and therapeutic algorithm for pudendal nerve entrapment syndrome. *Medicina clinica*. Jul 23, 2021;157(2):71-78. Algoritmo diagnóstico y terapéutico del síndrome de atrapamiento del nervio pudendo. doi:10.1016/j.medcli.2021.02.012

2. Possover M, Forman A. Voiding Dysfunction Associated with Pudendal Nerve Entrapment. *Current bladder dysfunction reports*. Dec 2012;7(4):281-285. doi:10.1007/s11884-012-0156-

## Results:

**Figure 1 – VAS evolution.**



**Table 1 - Performance characteristics of the tests.**

| Test           | Sensitivity (%) | Specificity (%) | PPV (%)     | NPV (%)     |
|----------------|-----------------|-----------------|-------------|-------------|
| ImPN           | 86.7            | 71.4            | —           | —           |
| NFS            | 91.0            | 50.0            | —           | —           |
| NFS+ and ImPN+ | <b>79.0</b>     | <b>85.7</b>     | <b>98.0</b> | <b>30.0</b> |

**Table 2 - Univariable analysis for surgical outcomes prediction.**

| Variable            | Coefficient (B) | CI (95%)       | p-value      |
|---------------------|-----------------|----------------|--------------|
| NFS suspicious PNE  | -2.3            | -23.6 – -19, 9 | <b>0.013</b> |
| Imaging-guided PNI  |                 |                | <b>0.003</b> |
| - Positive response | -19.8           | -20.6 – -18.5  |              |
| - Negative response | -20.8           | -40.4 – 0.0    |              |
| PNI lasting         | - 0.006         | -0.014 – 0.627 | 0.251        |