

TRANSCUTANEOUS POSTERIOR TIBIAL NERVE STIMULATION (TTNS):EFFICACY IN WOMEN WITH REFRACTORY OAB

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www.ics-eus.org/2025/abstract/468

Introduction: Refractory OAB (AUA/SUFU 2019) Defined as failure of behavioural therapy after 8–12 weeks and failure of ≥ 1 antimuscarinic agent for 4–8 weeks at therapeutic dose.

Aims : To assess the efficacy of Transcutaneous posterior tibial nerve stimulation (TTNS) in women with refractory OAB.

Design- Prospective study

N = 30

Duration : 6 months (October 2024 to March 2025)

Inclusion criteria: Non pregnant women 18-70 years, diagnosed with refractory OAB

Exclusion criteria: Pelvic surgery within 3 months, Neurogenic OAB, co-existing neurological condition , prolapse stage 2 or more , concomitant faecal incontinence , having implants or skin damaged at the stimulation site.

A 3-day voiding diary was noted and the outcome measures (ICIQ-OAB, ICIQ-OAB-QOL and ICIQ-FLUTSSEX) were recorded at the baseline, at the end of 8 weeks therapy and 3 months later.

Procedure: One electrode (live pad) was placed 5cm posterior and superior to the medial malleolus and the other (ground pad) approximately 10 cm cephalic to the first one.

TENS machine was used for stimulation for 30 min in each session with a pulse width of 200 microseconds and a frequency of 10Hz.

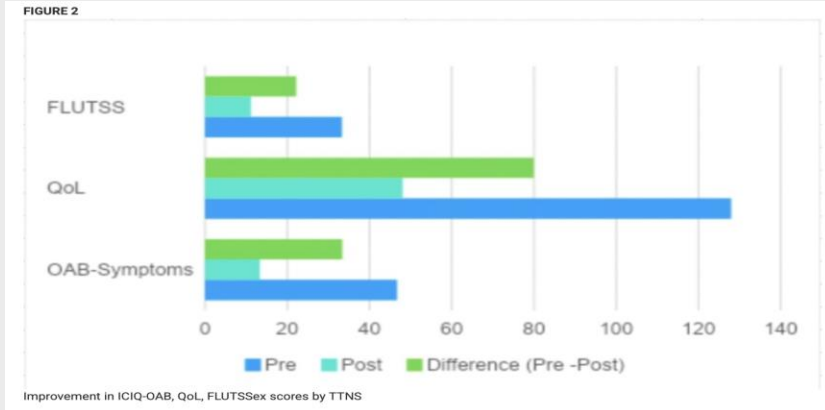
The stimulation sessions were done twice a week for 8 weeks, under expert supervision.

Global response assessment was done at the end of 8 weeks and at 3 months.

Results: 4 patients lost follow up. Statistical analysis was done for 26 patients.

- OAB Symptoms score reduced by mean of 33.3 points (SD-5.0)
- Quality of Life improved by 80.1 (SD-8.4)

- FLUTSSex (urinary symptoms affecting the sexual function) decreased by 22.2 points (SD-4.7)
- No adverse effects
- The mean GRA was 4.75 at 8 weeks, sustained at 3 months



Conclusion:

- TTNS therapy resulted in substantial reduction in overactive bladder symptoms and urinary distress, along with a significant enhancement in QoL.
- TTNS is an effective non-invasive treatment option for patients with refractory OAB

Drawbacks:

Shortcomings in this study are small sample size, non-randomisation and shorter follow up.

Longer follow up with larger numbers and multi centre randomised controlled trials would be required for further validation of TTNS as a therapeutic approach for OAB and comparison or as an adjunct with pharmacotherapy.

References:

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