Efficacy of Lenire® for Mild-to-Catastrophic Tinnitus in Veterans: A Retrospective Case Series

Samantha Little, MS, MPH[1] Courtney Bel, AuD[3] Nathan Lindquist, MD[2,3] Angela Peng, MD[2,3]

[1] Dell Medical School, The University of Texas at Austin [2] Bobby R. Alford Department of Otolaryngology- Head and Neck Surgery, Baylor College of Medicine [3] Michael E. DeBakey VA Medical Center, Houston, TX

Introduction

- Chronic tinnitus has limited treatment options and no FDA-approved pharmacotherapy; veterans are affected far more often than civilians (up to 53%).[1]
- Lenire® bimodal neuromodulation is FDA-approved but unstudied in veterans. We evaluated the change in Tinnitus Handicap Inventory (THI) after 12 weeks of use.

Methods

- Retrospective case series at the Michael E. DeBakey VA Medical Center (MEDVAMC)
- 13 veterans; 12 weeks of Lenire®; follow-up March 2025 – September 2026
- Inclusion: chronic tinnitus, baseline THI ≥ 34
- Primary outcome: change in THI, pre vs post treatment

Cohort (n = 13)

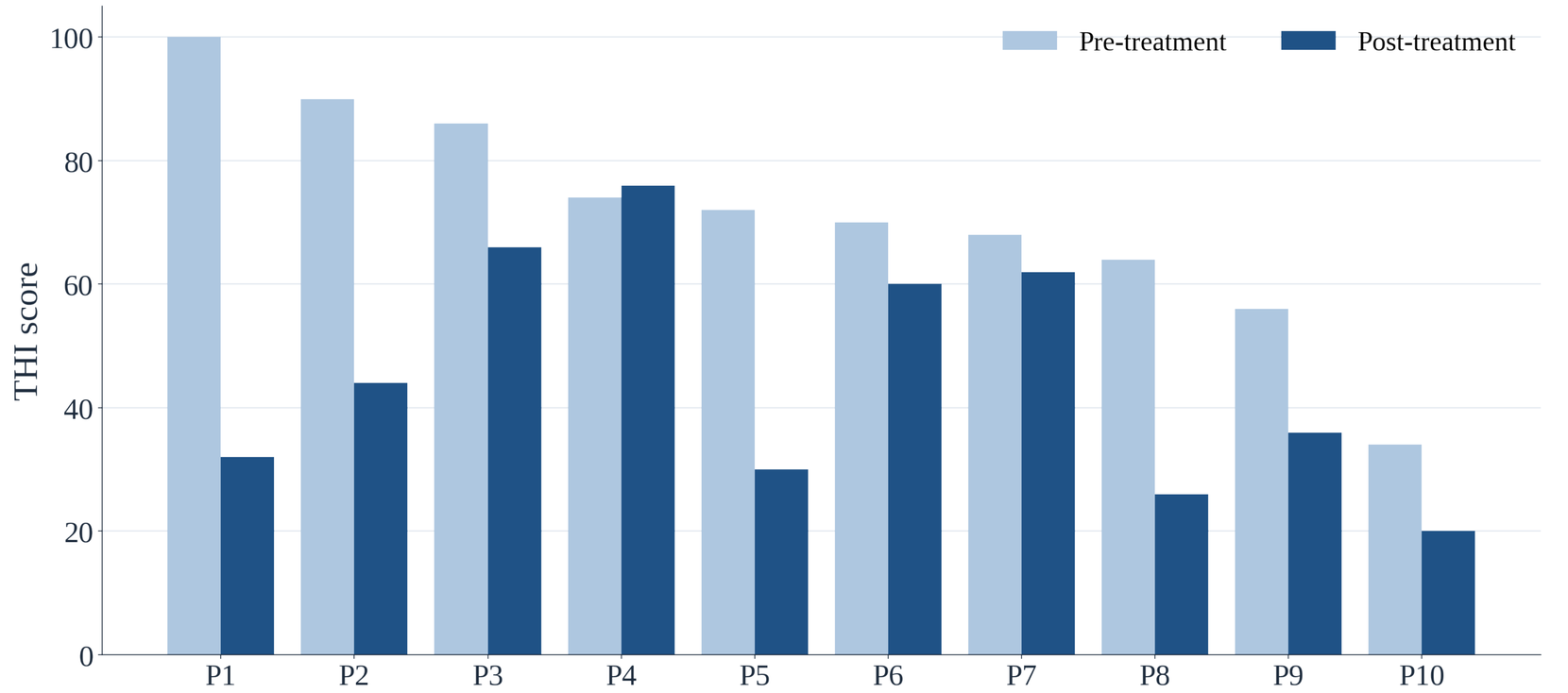
Characteristic	Value (%)
Age, median (IQR), y	64 (61-74)
Male sex	13 (100)
≥1 psychiatric diagnosis	10 (77)
Bilateral SNHL	12 (92)
Service-connected tinnitus	9 (69)
Baseline THI, median (IQR)	74 (68-86)
Completed 12-wk course	10 (77)

IQR, interquartile range; SNHL, sensorineural hearing loss.

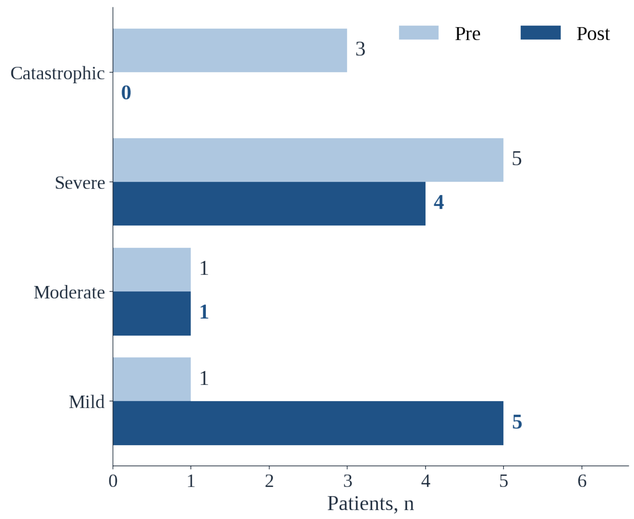
Median THI 71 → 40

Pre- vs post-treatment

Pre- vs post-treatment THI by patient (n = 10)



Severity grade shift



Conclusion

- Twelve weeks of Lenire® lowered THI by a mean of 26.6 points (≈ one severity grade); no completer remained in the catastrophic grade and half reached mild.
- Well tolerated, with only minor device issues. Findings support larger prospective studies of bimodal neuromodulation in this medically complex population.

1. Henry JA, Griest S, Reavis KM, et al. Noise Outcomes in Servicemembers Epidemiology (NOISE) Study. Ear Hear. 2021;42(4):870-885.

Acknowledgements: The authors thank the audiology and ENT teams at MEDVAMC and the veterans who participated. Poster layout and formatting were assisted by Claude (Anthropic); all scientific content is the authors' own.