

A real-world retrospective review of outcomes resulting from 60-day PNS for the treatment of chronic pain



MA Huntoon, MD^{1,5}, KV Slavin, MD^{2,3}, JM Hagedorn, MD⁴, ND Crosby, PhD⁵, JW Boggs, PhD⁵

¹Department of Anesthesiology, Virginia Commonwealth University, Richmond, VA; ²Department of Neurosurgery, University of Illinois at Chicago; ³Neurology Section, Jesse Brown Veterans Administration Medical Center, Chicago, IL; ⁴Spine Pain Physicians, Maple Grove, MN; ⁵SPR Therapeutics, Cleveland, OH

BACKGROUND

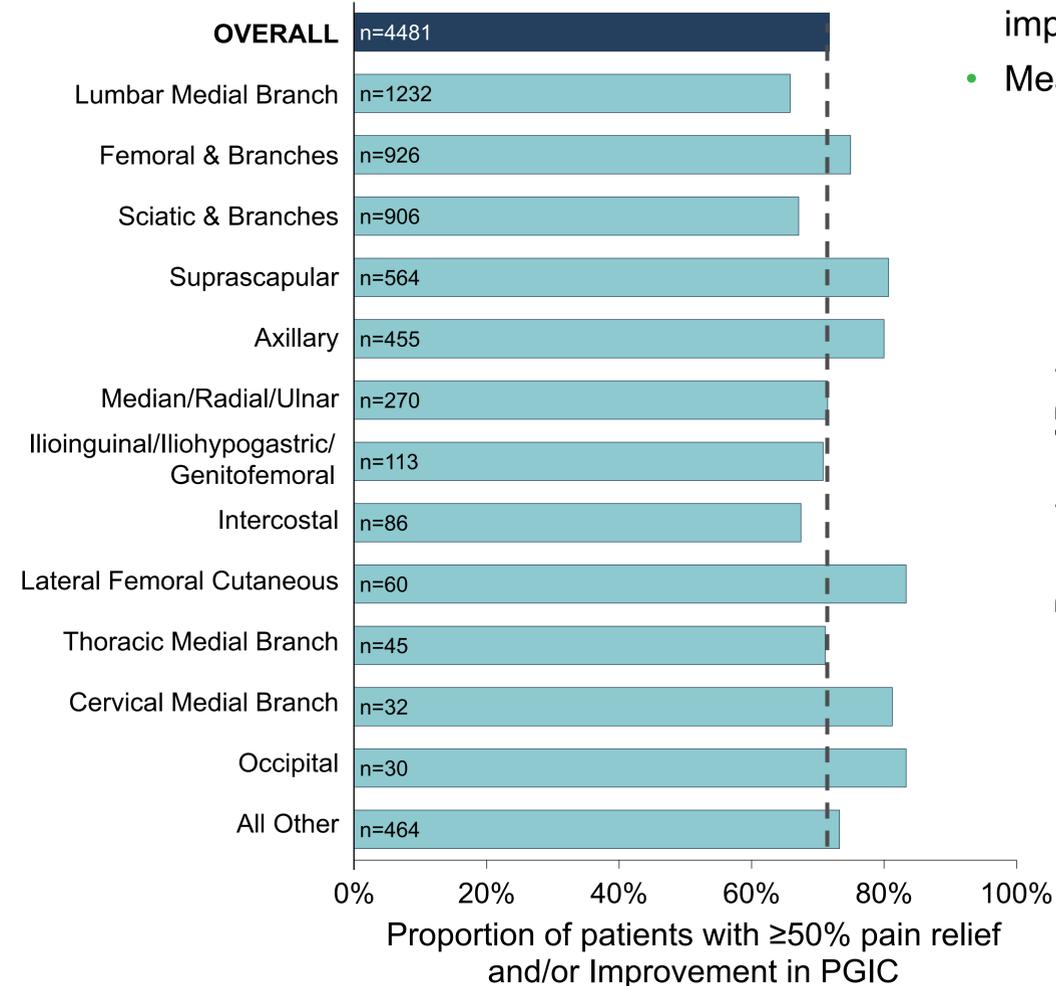
- Real-world evidence can provide important insights into treatment effectiveness in routine clinical practice.^{1,2}
- Recent studies across multiple pain indications have suggested that percutaneous PNS treatment via implanted leads for up to 60 days can produce significant pain relief,³⁻⁷ but few real-world studies have been published.
- The present study is the first real-world, retrospective review of a large database depicting outcomes during the 60-day PNS treatment period.

METHODS

- Anonymized records of 4481 patients who were implanted with a SPRINT PNS System between Oct 2017 and Dec 2021, opted-in to provide data, and had baseline pain $\geq 4/10$ were retrospectively reviewed from a national real-world database.
- The proportion of patients with $\geq 50\%$ pain relief and/or clinically significant improvement in quality of life measured by Patient Global Impression of Change (PGIC) was evaluated and stratified by nerve target.

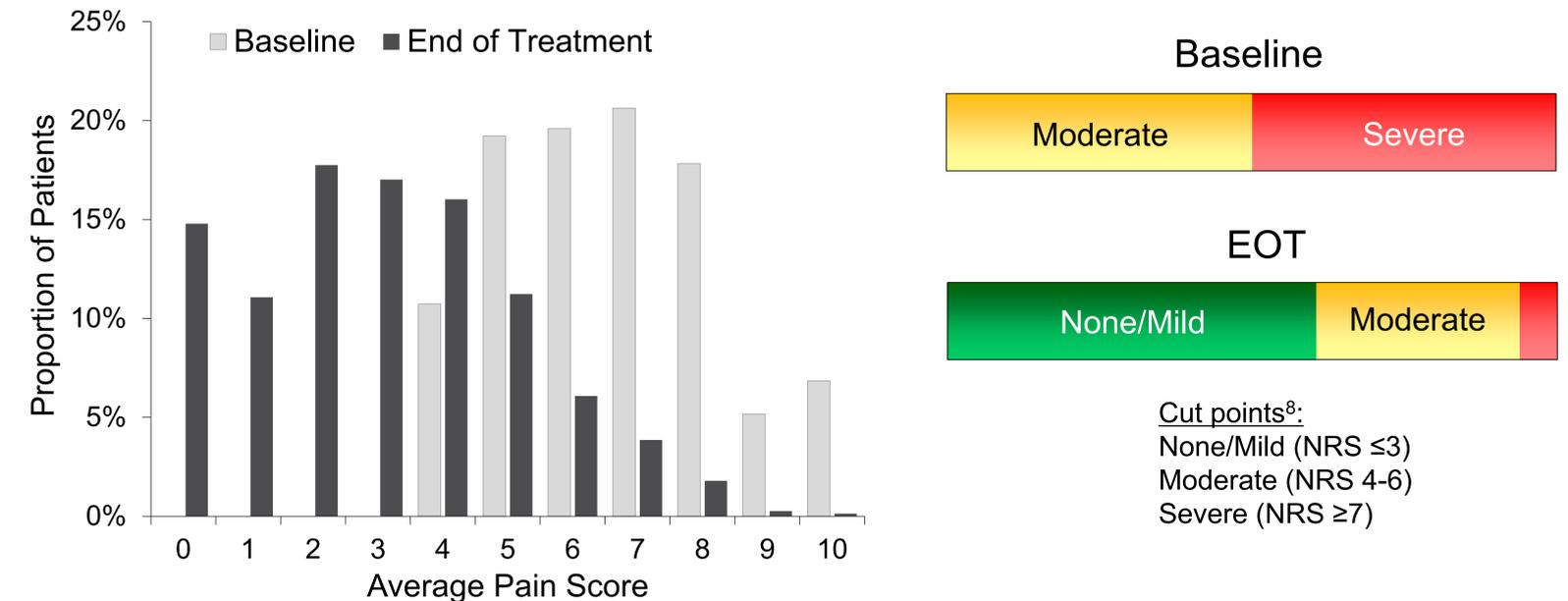


RESULTS & DISCUSSION



- 72% of patients (3215/4481) were responders at end of treatment (EOT) with $\geq 50\%$ pain relief and/or improvement in quality of life across nerve targets
- Mean percent pain relief among responders was $62.1 \pm 25.7\%$

Average Pain Score and Severity Among Responders:



- While safety was not directly analyzed in this review, published studies indicate the most common events are skin irritation due to adhesive bandages, pain or discomfort due to stimulation, and pain due to the lead placement procedure.

CONCLUSIONS

- Real world evidence highlights consistent outcomes across nerve targets in the extremities, back, trunk, and posterior head and neck, including substantial pain relief and improvements in quality of life in a majority of patients.
- Findings complement previous, published, prospective clinical trials demonstrating the potential for significant pain relief from 60-day PNS treatment for chronic pain.

REFERENCES

- Chakravarthy 2018; 2. Graham et al., 2018; 3. Gilmore et al., 2021; 4. Gilmore et al., 2020; 5. Wilson et al., 2014; 6. Deer et al., 2021; 7. Chae et al., 2013; 8. Woo et al., 2015
- Support for this study was provided by SPR Therapeutics. MH, NC, and JB are employees of SPR Therapeutics.