

Significant and sustained relief of shoulder pain following 60-day PNS treatment:

A real-world retrospective review

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BACKGROUND

- Chronic shoulder pain commonly results in disability and reduced quality of life.¹⁻²
- Current treatment options for chronic shoulder pain are often limited or lack efficacy.³
- Temporary percutaneous peripheral nerve stimulation (PNS) has shown significant and sustained relief in clinical trials.⁴⁻¹¹
- The present work is the first real-world, retrospective review of patient outcomes through 6 months following the start of a 60-day PNS treatment for chronic shoulder pain.



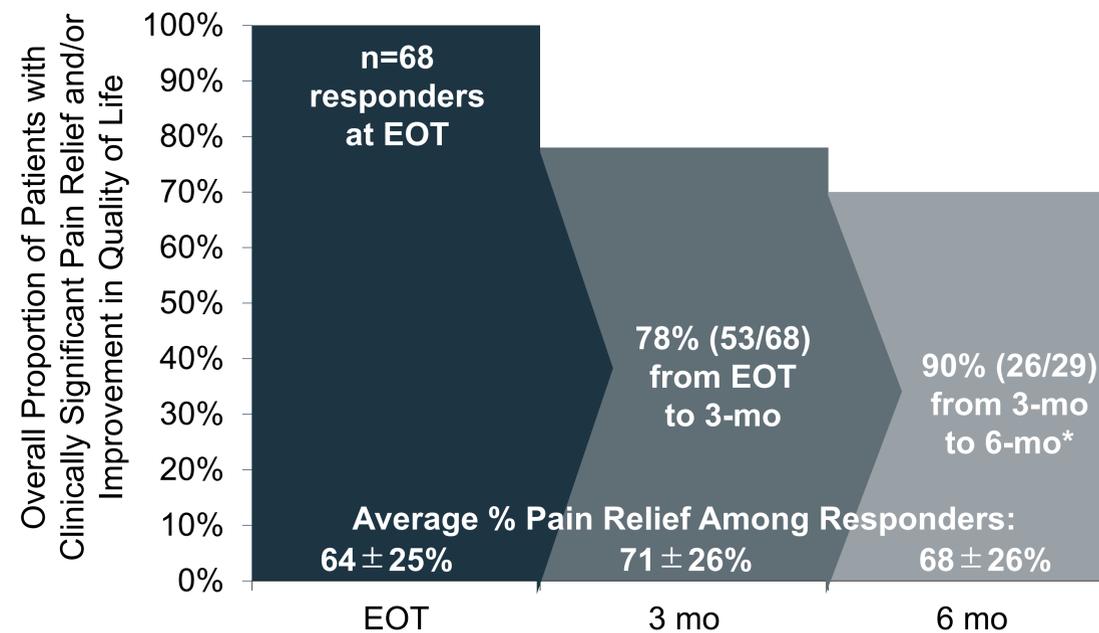
METHODS

- Goal:** evaluate the potential for sustained improvement in patients who were initially responders at the end of a 60-day PNS treatment
- Anonymized records reviewed from a national real-world database of patients who:
 - Previously underwent commercial implantation of 60-day PNS leads for shoulder pain
 - Opted in to provide data to the device manufacturer
 - Were responders at end of treatment and were at least 6 months from the start of the 60-day treatment
- Responders = clinically significant improvement in pain ($\geq 30\%$) and/or quality of life as measured by Patient Global Impression of Change (PGIC)
- Responders at EOT were followed up at 3 months. Those still responding at 3 months were followed up at 6 months.



RESULTS & DISCUSSION

70% Overall Rate of Sustained Improvement Among Responders at 6 Months after Start of Treatment



*among those with data available at 6 months. EOT = end of treatment

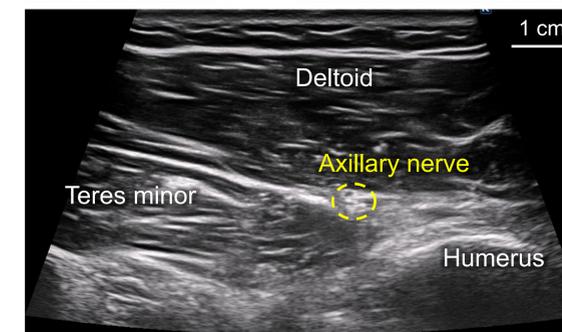
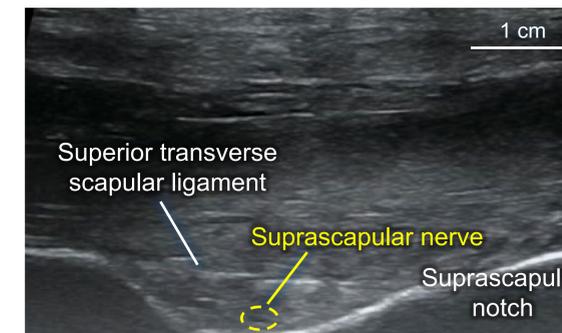
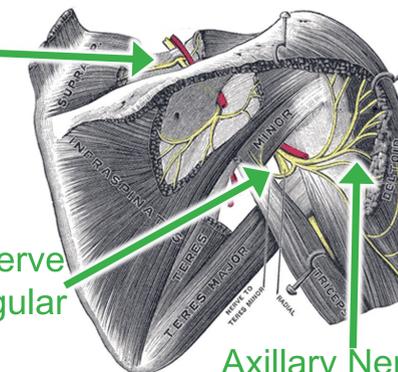
- Previous analysis found that 81% (660/818) of patients receiving temporary PNS for shoulder pain had substantial pain relief and/or clinically significant improvement in quality of life at EOT.¹²
- While safety was not directly analyzed here, published studies indicate the most common events are skin irritation due to adhesive bandages, pain or discomfort due to stimulation, and pain due to the lead placement procedure.

Suprascapular Nerve

The most common targets for PNS were the suprascapular and axillary nerves.

Axillary Nerve (quadrangular space)

Axillary Nerve (terminal branches)



Example ultrasound approaches to suprascapular nerve at the suprascapular notch and axillary nerve at the quadrangular space.

CONCLUSIONS

- A substantial majority of patients who responded to 60-day PNS for shoulder pain continued to have improvement through at least 6 months from start of treatment.
- This real-world evidence supports prior reported outcomes from prospective studies that a 60-day PNS treatment can provide significant, extended relief from chronic pain.

REFERENCES

- Chillemi et al., 2013; 2. Buckwalter et al., 2004; 3. Millett et al., 2008; 4. Wilson et al., 2011; 5. Wilson et al., 2012; 6. Chae et al., 2013; 7. Wilson et al., 2014; 8. Wilson et al., 2018; 9. Gilmore et al., 2019; 10. Gilmore et al., 2020; 11. Gilmore et al., 2021; 12. Huntoon et al., ASPN 2022

Support for this study was provided by SPR Therapeutics. SS, NS, and SE are consultants to SPR Therapeutics. CZ, NC and JB are employees of SPR Therapeutics.