

Treatment of Pain Using Cervical Radiofrequency Ablation: Outcomes from an International, Prospective Multicenter Study (RAPID)

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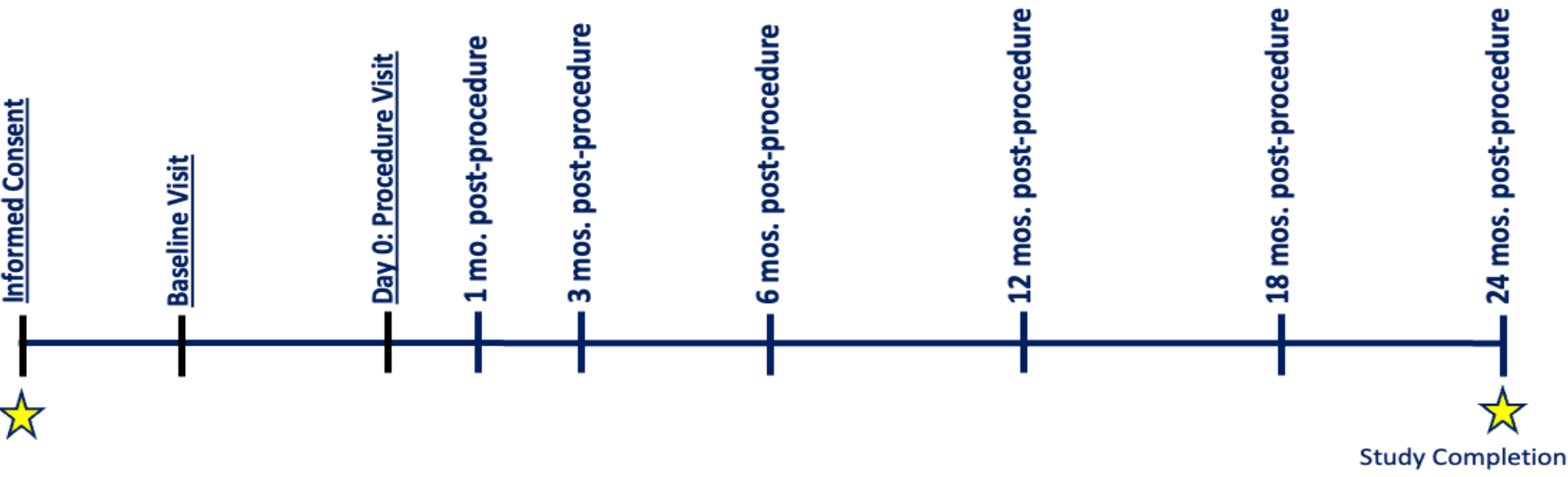
BACKGROUND

Chronic axial neck pain with or without headache and/or upper extremity pain is increasingly noted as a source of enduring disability and medical costs, and one of the leading causes of healthcare burden.¹ Several clinical studies, including RCTs and observational studies have demonstrated positive outcomes using radiofrequency ablative (RFA) techniques for a range of chronic neck pain indications.²⁻⁶ Further, a recent meta-analysis of 20 previously published studies showed that evidence collectively published supports the use of therapeutic radiofrequency (RF) techniques for the effective management of chronic neck pain.⁷ In light of the on-going opioid epidemic and the need to provide better care to chronic pain patients, recent guidelines (HHS 2019 Best Practices report and 2022 CDC guidelines) have highlighted the need to incorporate interventional techniques including neuromodulation and RF.⁸⁻⁹ Thus it is important to continually assess and document clinical effectiveness of contemporary RF devices in real-world patients with chronic neck pain, headaches and proximal upper extremity pain. We assessed patients diagnosed with chronic cervical facet joint pain who were treated with RFA as part of a prospectively-enrolled, real-world, multicenter, international study.

METHODS

Study Design	Multicenter, Prospective, International Outcomes Study with consecutive enrollment
Study Device	Commercially-approved RFA Systems (Boston Scientific)
Subjects	71 patients with cervical facet joint pain
Study Eligibility Criteria	Key Inclusion Criteria: Study candidate is scheduled to be treated with a commercially approved Boston Scientific RF system for pain per local Directions for Use (DFU) Key Exclusion Criteria: Meets any contraindications per locally applicable Directions for Use (DFU)

STUDY SCHEMATIC



RESULTS

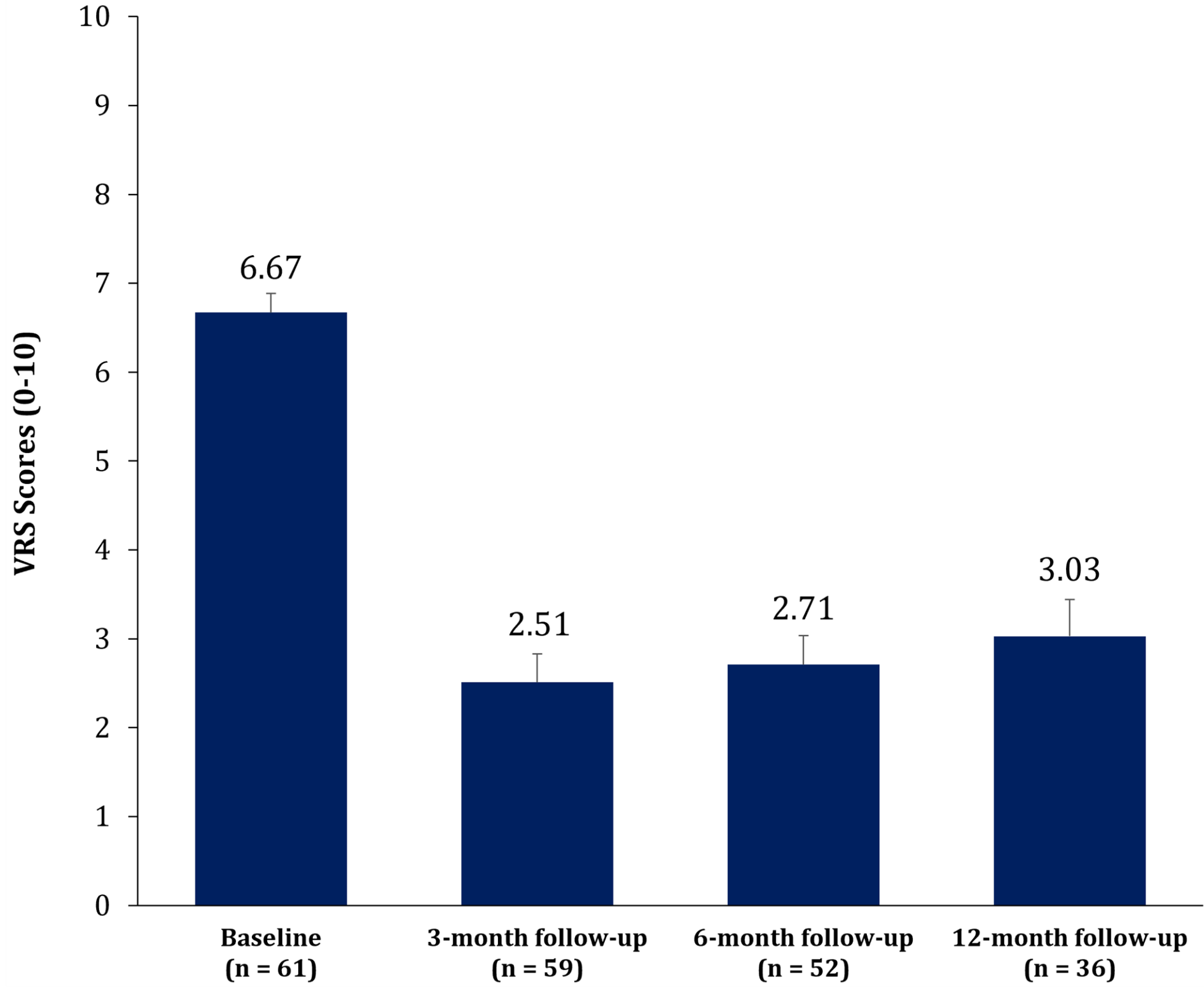
A total of 71-enrolled subjects with cervical facet joint pain in the prospective, multicenter, real-world study received radiofrequency treatment.

Baseline Characteristics (n = 71)

Gender - Females (%)	60.5 % (n = 43/71)
Age (years) [Mean (SD)]	59.65± 11.3 years (n = 71)
Pain Duration (years) [Mean (SD)]	13.82 ± 11.3 years (n = 71)
Baseline Targeted Pain Score [Mean (SD)]	6.67 ± 1.61 (n = 61)

Targeted Pain is the area of pain intended to be treated with Radiofrequency (RF).

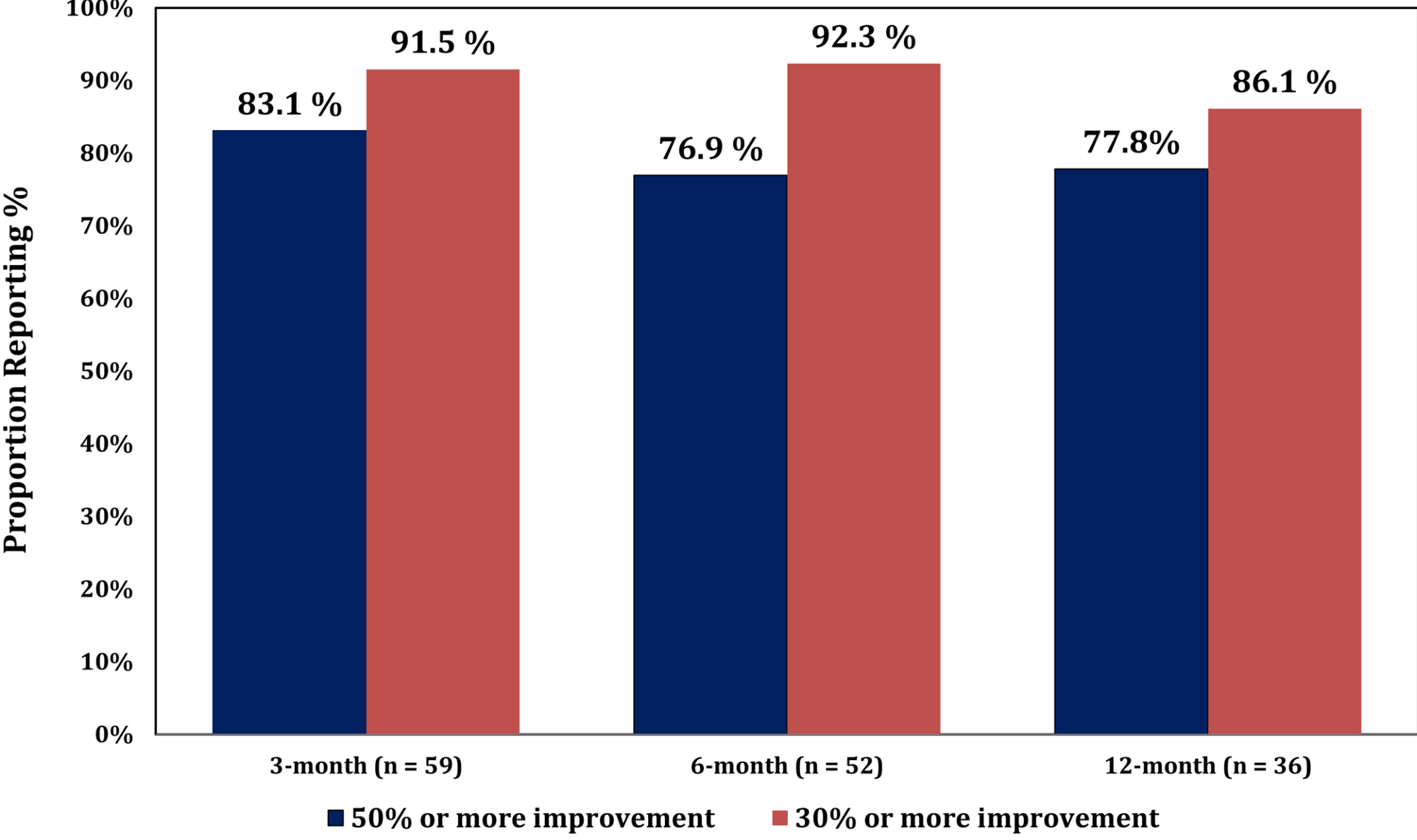
Targeted Pain Scores up to 1-year post-procedure



At 12-months, significant improvement ($p < 0.0001$) in pain scores was noted.

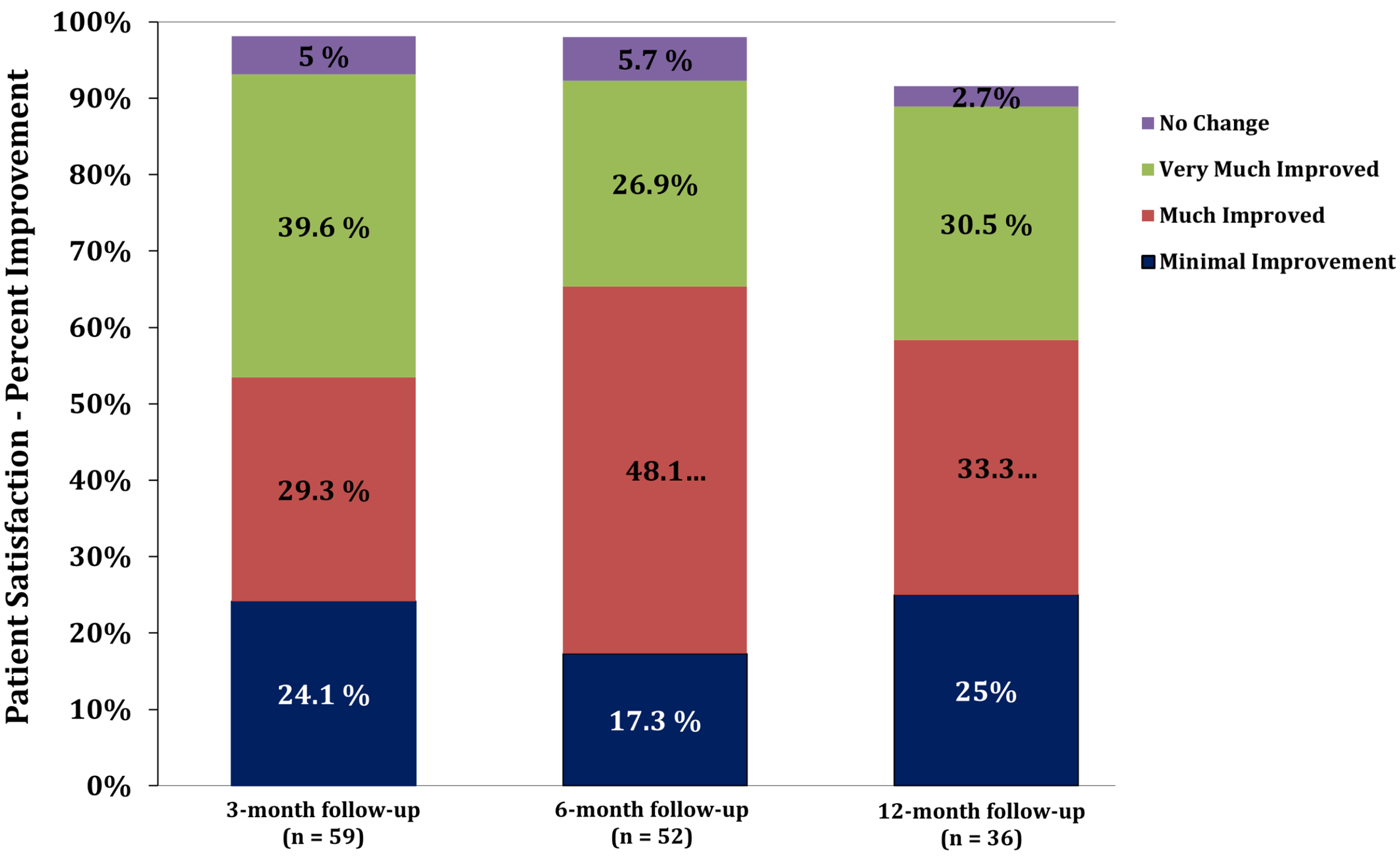
- 4.1-point NRS score improvement ($6.7 \rightarrow 2.5$) at 3-months and sustained long-term

Responder Rates (Targeted Pain) post-procedure



High responder rates (>75%) among patients receiving RF for cervical pain up to 12-months post-procedure.

Patient Satisfaction (PGIC) post-procedure



88% of patients (cervical RFA) reported improvement (very much, much, or minimally improved) up to 12-months post-procedure.

CONCLUSIONS

- Treating cervical facet joint pain with radiofrequency ablation can result in significant pain relief and over all satisfaction and these results are consistent with published reports (Hurley et al, 2022, Manchikanti et al., 2022)
- Preliminary sub-analysis from an ongoing, prospective, multicenter, real-world outcomes RF study of 71 patients with cervical pain shows significant improvement in pain scores up to 12-months post-procedure.

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- 88% reported improvement (i.e., very much, much or minimally improved)

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DISCLOSURES

This study is sponsored by Boston Scientific. Drs. Atallah, Shah, and Provenzano have consulting agreements with Boston Scientific. Yu Pei and Nilesch Patel are employees of Boston Scientific...

