

Outcomes of a Large, Multicenter, Real-world Study Using an SCS System Capable of Engaging Surround Inhibition

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BACKGROUND

Given the established subjective and varying nature of the experience of pain, providing those implanted with a Spinal Cord Stimulation (SCS) device with multiple and patient-selectable neurostimulative programming options (that can be optimized for the individual) is increasingly recognized as an important aspect for enabling the most efficient and effective treatment for chronic pain.¹⁻³ A recently launched, commercially-available SCS device capable of full-body MRI can provide (within a single device) an array of paresthesia-based and sub-perception-based neurostimulation modalities that engage multiple mechanisms of action including fast-acting sub-perception therapy (FAST), combination therapy and other advanced waveforms/field shapes. In this report, we describe our real-world, observational experience and patient-outcomes using this new SCS system for use in the treatment of chronic pain.

METHODS

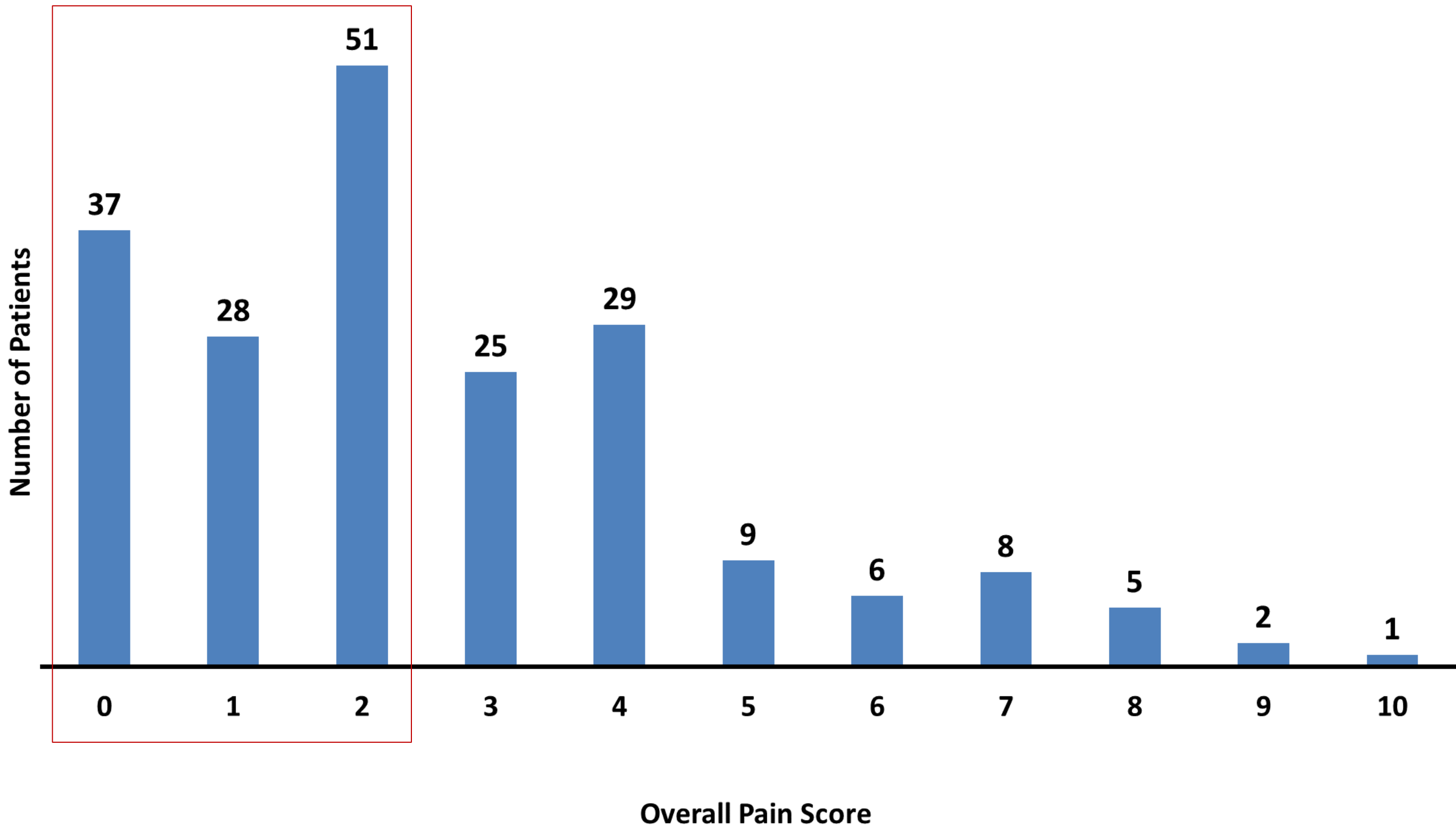
Study Design	Multicenter, Consecutive, Observational, Case-Series. Data collected by site personnel only.
Study Device	SCS System (WaveWriter Alpha, Boston Scientific): •Engage different mechanisms of action •Paresthesia-Guided Stimulation Field Targeting, Fast-Acting Sub-Perception Therapy (FAST) •Customized Field Shape Programming (Contour) •Illumina3D Algorithm with Multiple Independent Current Control (MICC)
Cohort	201 patients diagnosed with chronic pain

RESULTS

Baseline Characteristics (n = 201)

Gender - Females (%)	51.8% (104/201)
Age [Mean (SD)]	65.7 (12.6) years n = 199
Pain Location (%)	Low Back Pain (90.1%)
	Low Back and Legs (90.6%)
Baseline NRS [Mean (SD)]	7.7 (1.7) n = 201
Follow-up duration [Mean (SD)]	91 (122) days n = 201

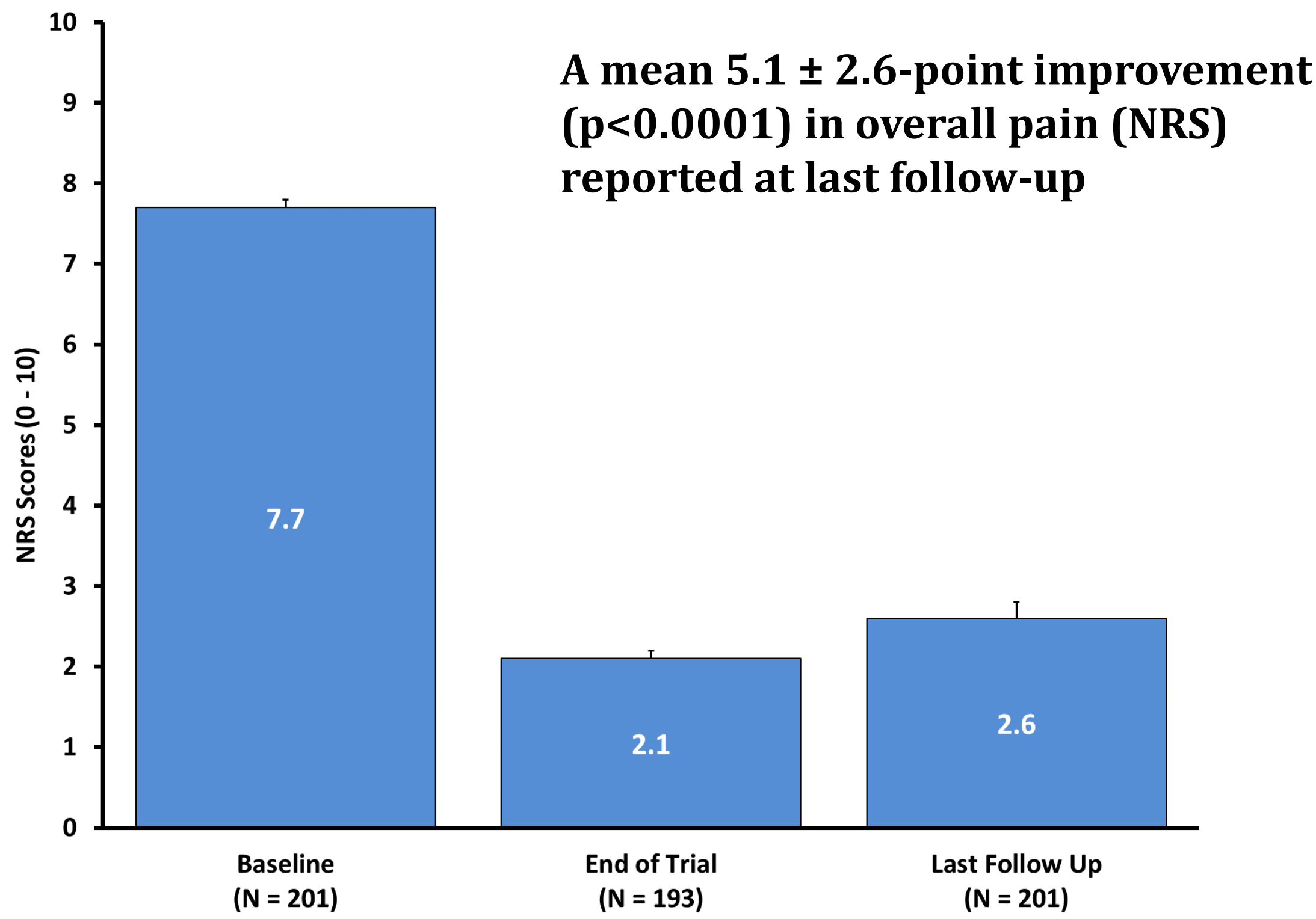
Distribution of Overall Pain Scores at Last Follow-Up (n = 201)



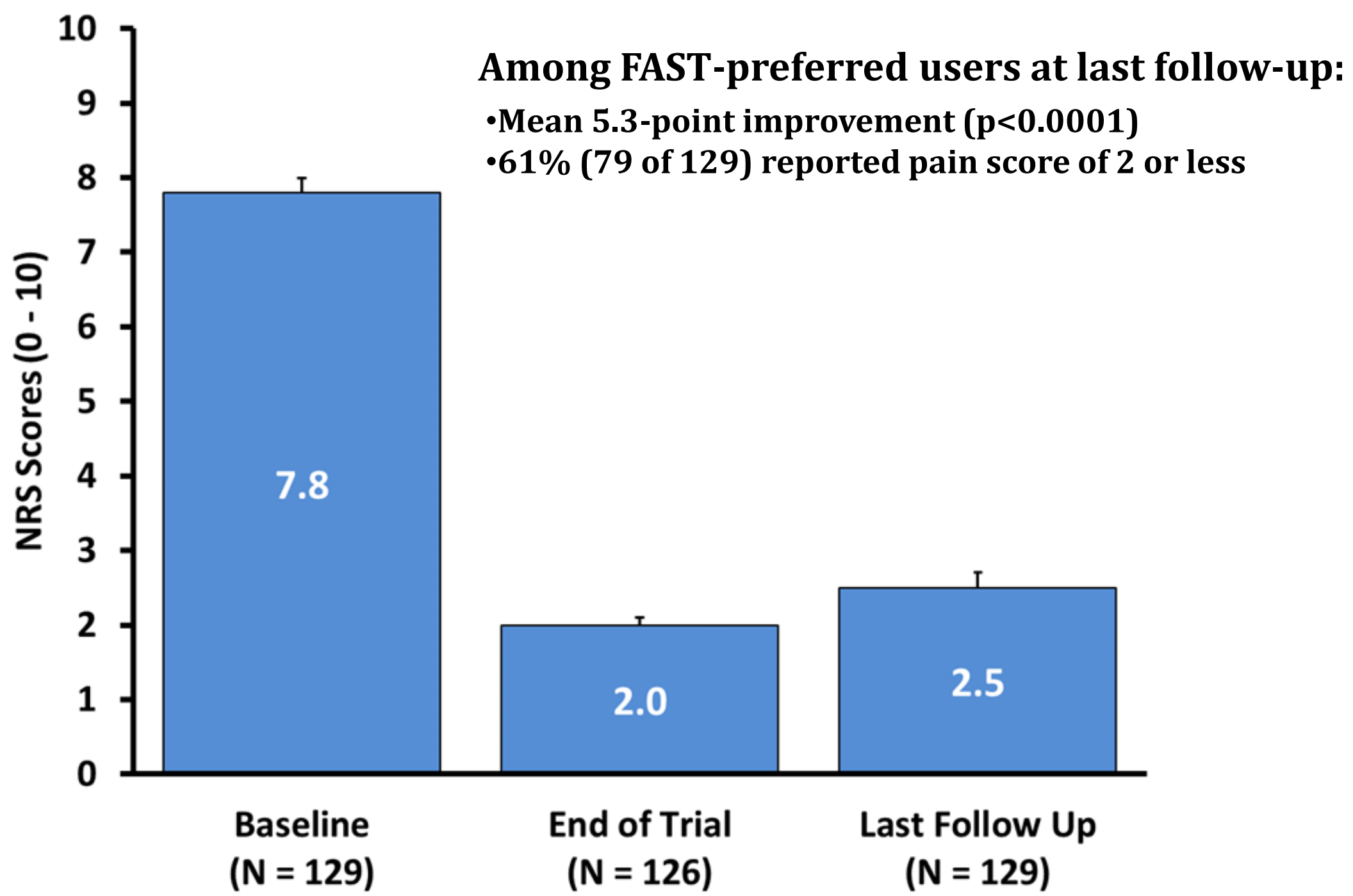
- At last follow-up:**
- 59% (119 of 201) reported a pain score of 2 or less
 - 18% (37 of 201) of subjects reported pain free (NRS = 0)

At last follow-up, 129 of 201 (64%) preferred FAST-SCS as their preferred program of choice

Overall NRS Pain Scores at Last Follow-up (n = 201)



Overall NRS Pain Scores at Last Follow-up: FAST-SCS preferred users



CONCLUSIONS

- Preliminary data from this multicenter, real-world, observational, case-series demonstrate significant improvement of chronic pain in patients with a new SCS system capable of providing multiple paresthesia-based and sub-perception-based modalities that engage multiple mechanisms of action.
- At last follow-up, of 201 patients,
 - 59% reported a pain score of 2 or less
 - 18% reported being pain free
- Most patients (64%) preferred FAST-SCS as their preferred therapeutic modality of choice to treat their chronic pain (129 of 201) and reported a 5.3-point NRS score improvement with 61% (79 of 129) being pain free (NRS = 0).

REFERENCES

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DISCLOSURES

Study sponsored by Boston Scientific. Drs. Ferro, Leier, Wilson and Newton have consulting agreements with Boston Scientific. Yu Pei and Edward Goldberg are employees of Boston Scientific.

