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Spinal Cord Stimulation Has Comparable Efficacy in Common Pain Etiologies

[1]Krames ES, [2]Oakley JC, [3]Foster AM, [4]Henderson J, [5]Prager JP, [6]Rashbaum RR, [7]Stamatos J, [8]Weiner RL.
[1]Pacific Pain Treatment Center, San Francisco, CA; [2]Yellowstone Neurosurgical Associates, Billings, MT;
[3]Boston Scientific Neuromodulation, Valencia, CA; [4]Stanford University Medical Center, Stanford, CA;
[5]California Pain Medicine Centers, Los Angeles, CA; [6]Texas Back Institute, Plano, TX;
[7]North Shore University Hospital, Syosset, NY; [8]Dallas Neurosurgical Associates, Dallas, TX.
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Purpose

- To evaluate the predictive value of pain etiology on short and long term clinical success with Boston Scientific Precision® spinal cord stimulation (SCS) systems.

Methods

- Prospective, multi-center trial
- Boston Scientific Precision SCS system and Linear™ percutaneous leads
- Enrolled 65 patients (60% male, mean age 52 yrs) from 7 geographically diverse US clinical pain management sites
  - FBSS (n=40, baseline VAS 7.89±0.23)
  - CRPS (n=9, baseline VAS 8.11±0.40)
  - Other (n=16, baseline VAS 7.60±0.35)
- VAS scores collected during the SCS trial period and at 2-week, 3, 6, 12, and 18 months post-implant; only 4 patients completed

Results

- No differences in VAS scores between pain etiology groups.
- 75% patients proceeded to permanent SCS implantation.
- Half of FBSS patients who proceeded to permanent implant reported ≥50% pain relief for 343 days after implant (Kaplan-Meier survival analysis).
- Majority of patients with CRPS or other pain etiologies reported >50% pain relief at all follow-up appointments.

Author Conclusions

- Success during the trial is likely independent of diagnosis of pain etiology.
- The results suggest that Precision SCS is a durable therapy and may provide 50% pain relief for a majority of patients for a year or more.
- The etiology of pain held no predictive value for outcome with SCS.

Note: Equivalence across pain etiologies may be a result of insufficient powering of the study as the group sizes were small and unequal between pain types (40 FBSS, 9 CRPS, 10 Other). Small numbers of subjects included in later time points preclude rigorous hypothesis testing.

Results from case studies are not predictive of results in other cases. Results in other cases may vary.

Article Summary

Failed Back Surgery Syndrome and Complex Regional Pain Syndrome

Discussion Point

- In this study, Precision Plus™ SCS therapy with SmoothWave™ Technology provides long lasting and clinically significant pain relief in patients with FBSS, CRPS and other pain etiologies.

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Neuromodulation
25155 Rye Canyon Loop
Valencia, CA 91355 USA

866.360.4747 Toll-free
877.464.2940 Fax
ControlYourPain.com