

Paresthesia Coverage and Pain Relief in the Low Back for Patients Implanted with a Precision Spinal Cord Stimulator System

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Purpose

- To determine if new spinal cord stimulation (SCS) technology is capable of targeting low back pain and maintaining coverage.

Methods

- Retrospective patient survey from a single Australian clinic
- Patients (n=32) with primary complaint of chronic low back pain implanted with a Precision™ Plus SCS system were contacted by telephone to quantify pain relief and paresthesia coverage.
 - Responses were received from 27 patients.
- Stimulator usage data downloaded at routine programming sessions.

Results

- 70% were satisfied with paresthesia coverage.
- Patients stated 85% (median) of back pain area was treated with stimulation (mean: 71±38%).
- VAS decreased from 8.3±1.3 to 4.3±2.4 (56% median reduction).
- 6 month follow-up data (n=12):
 - 87±18% back pain covered.
 - Reported 58±20% pain score reductions
- Pain therapy maintained at 4 and 10 months post-implant.
- Used stimulation an average of 16 hours/day but varied greatly between patients.

Author Conclusions

- New SCS technology was able to capture low back pain in most patients, with a 56% median reduction in pain scores.

Discussion Points

- Using technology available in 1993, Barolat et al. was able to induce paresthesia in the low back at most **30% of the time**¹.
- Patients treated by Verrills et al. were able to induce paresthesia and capture **71% of the low back pain using Precision™ Plus SCS systems.**

1. Barolat G, Massaro F, He J, Zeme S, Ketcik B. Mapping of sensory responses to epidural stimulation of the intraspinal neural structures in man. *J Neurosurg.* 1993 Feb;78(2):233-9.

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