

A retrospective, single-site evaluation into spinal cord stimulation for treating individuals with complex regional pain syndrome

B. Bretherton^{1,2}, G. Baranidharan^{1,3}

¹ Pain Management Department, Leeds Teaching Hospitals NHS Trust, Leeds, UK; ² School of Biomedical Sciences, Faculty of Biological Sciences, University of Leeds, UK; ³ School of Medicine, Faculty of Medicine and Health, University of Leeds, UK

Disclosures: BB has provided consultancy on medical writing and data analysis to Platform 14. GB has consulting agreement with Saluda, Nevro Corp, Abbott, Medtronic, Boston Scientific, Stryker and Mainstay Medical. GB had educational and research grants from Nevro Corp, Abbott and Boston Scientific. GB is on the advisory board for Abbott and Nalu Medical.

Introduction

Spinal cord stimulation (SCS) is an approved treatment for chronic neuropathic pain and research suggests it is effective and safe in complex regional pain syndrome (CRPS).

Aim: This retrospective, single-site evaluation aimed to explore the efficacy and safety of SCS for CRPS in our teaching hospital.

Results

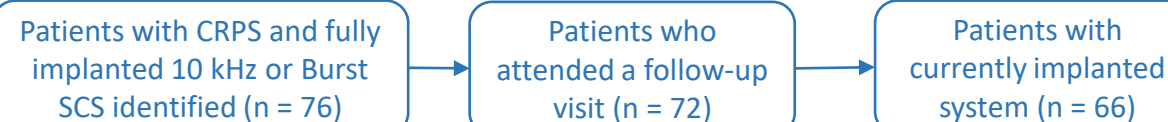
Average pain, worst pain and HRQoL were significantly improved at follow-up (24 ± 18 months) compared to baseline (*).

	Average pain (NRS, n = 64)	Worst pain (NRS, n = 61)	HRQoL (EQ-5D-3L, n = 61)
Baseline	7.38 (1.63)	8.95 (1.04)	-0.09 (0.33)
Follow-up	* 6.13 (1.97)	* 7.92 (1.94)	* 0.10 (0.46)
Mean (SD) change	-1.26 (2.30)	-1.03 (1.94)	0.19 (0.42)

≥30% reduction in average pain occurred in 31% (20 of 64) of patients.
Remission (0-3 average pain NRS) occurred in 11% (8 of 76) of patients.

18 patients (of 76, 24%) underwent a revision and the explant rate was 8% (6 of 76).

Materials and methods



Data collected included: age, gender, chronic pain diagnosis, SCS system; baseline and follow-up scores for average pain (numerical rating scale [NRS]), worst pain (NRS) and health-related quality of life (HRQoL, EQ-5D-3L); surgical revisions and explants.

Data were analysed by intention-to-treat and included descriptive statistics, paired t-tests/Wilcoxon signed-rank tests, counts and percentages.

Discussions

SCS in CRPS was associated with significant improvements in pain and QoL.

The evaluation of surgical revisions and explants also suggests this treatment is safe in this pain condition.

Conclusions

It is hoped findings will broaden insight into the clinical practice of SCS in CRPS and contribute to understanding the real-world outcomes of SCS in CRPS.