A PILOT STUDY TO SEE THE EFFECTIVENESS OF HIGH DOSE SPINAL CORD STIMULATION FOR INTRACTABLE LUMBAR RADICULOPATHY ON VIRGIN-BACKS

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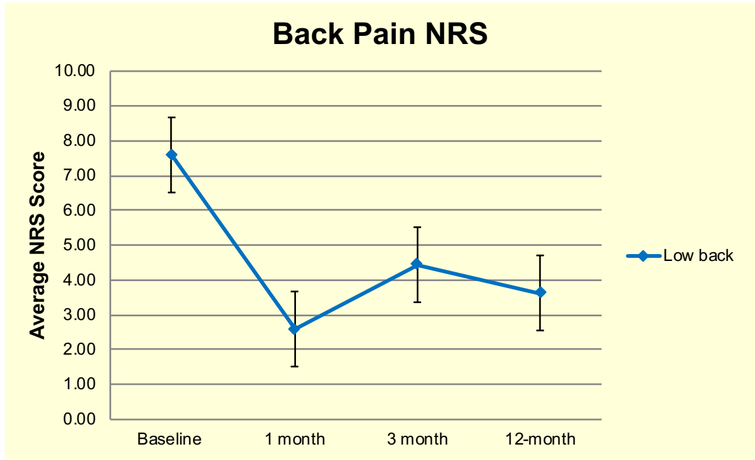
Objectives

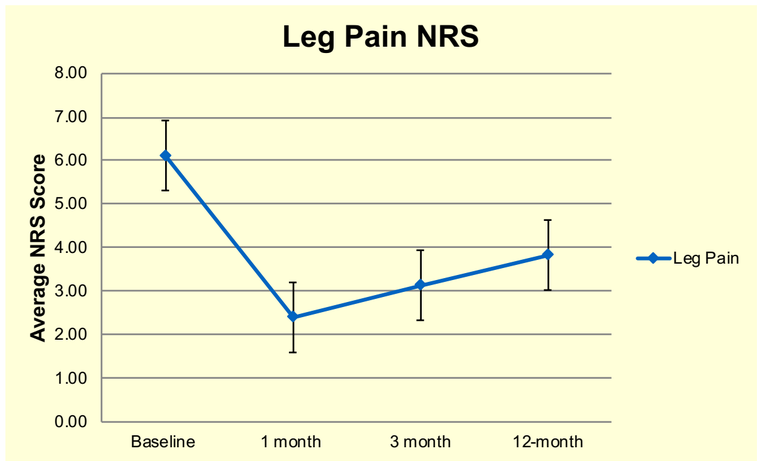
Spinal Cord Stimulation (SCS) is increasingly being used in patients with intractable neuropathic pain who have not undergone previous spinal surgery; however, data in the use of paraesthesia-free stimulation in this population is limited.
We aim to investigate the clinical response following SCS implant with High Density programming and the effect on quality of life.

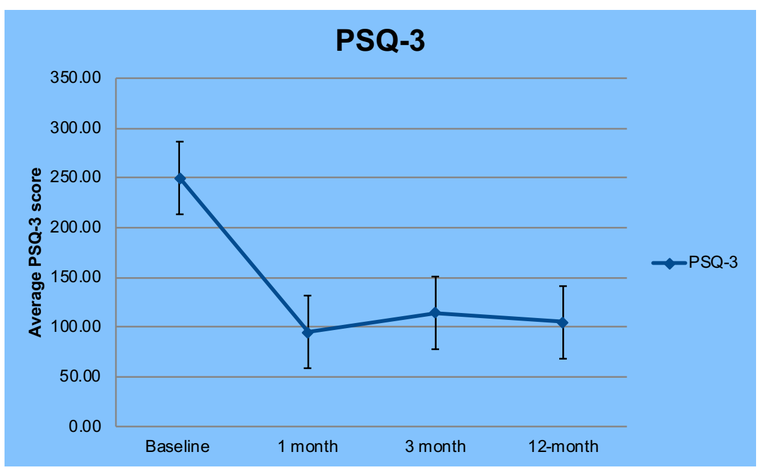
Methods

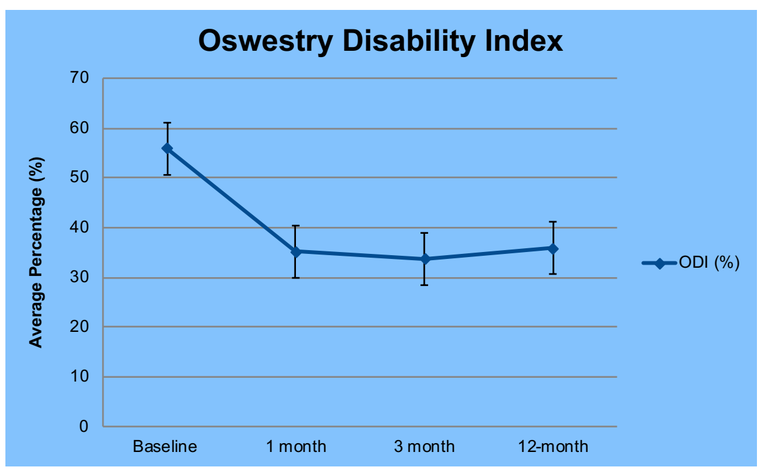
An open label, single-centre pilot study.
This study is recruiting patients with intractable neuropathic pain (n=20) due to undergo SCS with Medtronic RestoreSensor™ as part of their standard NHS treatment.

The following self-report data will be collected pre-implant and at 1, 3 and 12 months post-implant:
•Numerical Rating Scale (NRS) (for leg and back)
•Oswestry Disability Index (ODI) for low back pain
•Pain and Sleep Questionnaire (PSQ-3)









Interim Results

14 patients (13 female, 1 male) have been enrolled with on going recruitment.
At **baseline** (n=14), the mean NRS score for lower back pain and leg pain were 7.59±1.23 and 6.12±2.02 respectively.

1-month (n=14), post-implant - the average reduction in lower back pain is 5.00±3.15 (−63.47% vs. baseline) and 3.72±2.71 (-59.05% vs. baseline) for leg pain.

3-months (n=12), post-implant - average back pain reduction is 3.17 ± 3.24 (-38.92% vs. baseline) and 2.89 ± 3.76 (-38.80% vs. baseline) for leg pain.

12-months (n=10) post-implant - average back pain reduction is 4.03 ± 3.66, ***p* = 0.001** (-49.87% vs. baseline) and 2.97 ± 2.67, *p* = 0.107 (-50.84% vs. baseline) for leg pain.

Conclusion

Currently, the interim data of this study demonstrates High Density SCS may be an effective therapy to reduce lower back and leg pain, improve sleep and quality of life in patients who have not previously undergone spinal surgery.

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