

Sustained Pain Relief with Sequential Unilateral PNS of Bilateral L4 Medial Branches in a Patient with FBSS

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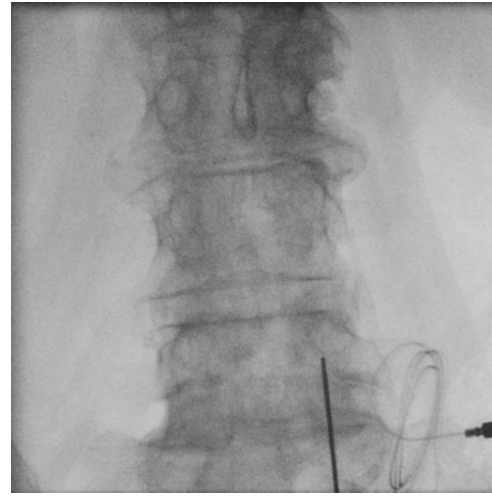
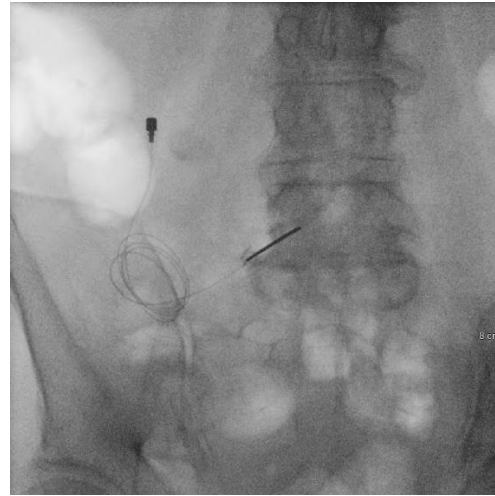


Introduction

Failed back surgery syndrome (FBSS) occurs in an estimated 10-40% of the 500,000 lumbar spinal surgeries performed annually in the United States,¹ generating an enormous medical burden for those affected. Peripheral nerve stimulation (PNS) is an implantable, minimally invasive, and drug free therapy that has been used for midline low back pain and may present as an alternative to conventional FBSS treatment.

Case Presentation

A 63-year-old female with complex medical history including FBSS following L3-L5 laminectomy was treated with sequential implantation of temporary 60-day PNS devices targeting the bilateral L4 medial branches at the L5 vertebral bodies, experiencing 100% low back pain relief, a dramatic reduction in medication burden, and increased activity levels.



Discussion

Literature on temporary PNS as a treatment for facetogenic low back pain is sparse, though prior case series from Gilmore² and Fiala³ demonstrate promise for decreased pain and disability, and increased quality of life. For this patient, the bilateral lumbar facet joints were determined to be the primary pain generators and the benefits of a temporary, targeted, minimally invasive implant were preferred over a permanent neuromodulation system. Future studies may seek to explore the effects of sequential vs. concurrent temporary PNS implantation in patients with facet-mediated low back pain.

Conclusion

Sequential unilateral peripheral nerve stimulation of the lumbar medial branches was an effective treatment of failed back surgery syndrome in a patient with three-level lumbar laminectomy. Peripheral nerve stimulation merits further consideration as a minimally invasive and opioid-sparing means of treating failed back surgery.

References

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