

Introduction

Ilioinguinal neuralgia is an uncommon, but debilitating pain condition with many etiologies. Current treatment modalities include local corticosteroid infiltration, pulsed radiofrequency ablation, nerve decompression, neurectomy, peripheral nerve stimulation, and spinal cord stimulation, but outcomes after these interventions are frequently unsatisfactory. Dorsal root ganglion (DRG) stimulation is an emerging technique that may have a role in the treatment in many pain conditions. This case series reports on six patients treated with (DRG) stimulation at a large academic tertiary referral center.

Methods

This case series includes all patients with chronic groin pain treated with DRG stimulation through 8/15/17 performed by one surgeon at a single site. Subjects were identified through departmental records and chart review. DRG stimulation was performed by the standard two-stage trial-implant technique. Final placement of the permanent implanted electrode was confirmed with intraprocedural fluoroscopy. Subjects received a combination of T12, L1, and/or L2, stimulation depending on the anatomic distribution of their pain. Two subjects received bilateral stimulation. Subjects self-reported outcomes in the follow-up period. Addtional data was derived from chart review.

Image 1. Lead Placement



Image 1. Confirmatory Imaging of Permanent Stimulator Electrodes at the Dorsal Root Ganglia of Subject 1

Results

Four of six subjects in this series had previously diagnosed ilioinguinal neuralgia. The other two subjects had less well defined chronic neuropathic penis and groin pain. Mean age at implant trial was 51.5 years old, and all subjects were male. Five subjects proceeded with permanent implantation. At follow up, all five reported 80% or greater pain relief. One subject (ID 3) with atypical chronic penis pain failed the trial. Six months later, one subject (ID 2) reported new onset back pain and the return of symptoms without radiographic evidence of electrode migration.

Conclusions

DRG stimulation is a promising technique for the treatment of ilioinguinal neuralgia and chronic neuropathic groin pain. Further investigation is warranted to be define the long-term effectiveness of this intervention amongst a wider ranger subjects and indications.

Learning Objectives

By the conclusion of this session, participants should be able to 1) consider the future role of DRG stimulation in ilioinguinal neuralgia and chronic neuropathic groin pain.

Table 1. Case Descriptions

ID	Sex	Diagnosis	Percutaneous trial	Permanent Implant	Percent Relief
1	M	Ilioinguinal Neuralgia	Left T12 – L1	Left T12 – L1	80 - 90%
2	M	Ilioinguinal Neuralgia	Bilateral T12	Bilateral T12, Left L1	80 - 90%
3	M	Penile Pain	Bilateral T12 – L1	Failed Trial	0%
4	M	Ilioinguinal Neuralgia	Left T12 – L1	Left T12 – L2	90 - 100%
5	M	Groin Pain	Bilateral L1	Bilateral L1	95%
6	M	Ilioinguinal Neuralgia	Left T12 – L1	Left T12 – L1	95 - 100%

Table 1 - Case Series of Dorsal Root Ganglion Stimulation for Ilioinguinal Neuralgia

References

Schu, S., Gulve, A., ElDabe, S., Baranidharan, G., Wolf, K., Demmel, W., . . . Liem, L. (2015). Spinal cord stimulation of the dorsal root ganglion for groin pain-a retrospective review. Pain Pract, 15(4), 293-299.

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