

Single lead cervical spinal cord stimulation in management of refractory postherpetic neuralgia

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Case Description

The Patient

- 82-year-old legally blind female with PMH SSS s/p PPM
- History of shingles complicated by postherpetic neuralgia
- Presented to pain management clinic with severe debilitating pain in the right neck, shoulder, and arm
 - Dermatomes: right C4 - C6, and T1
 - Pain Quality: "hot poker" and "electric-shock"
 - Prior treatments: topical creams and ointments, oral steroids, neuropathic agents, opioids, acupuncture, and cervical epidural steroid injections

The Intervention

- Right sided, percutaneous octapolar Medtronic dorsal column spinal cord stimulator lead to C4
- Trial resulted in >90% relief with improvement in function
- Permanent SCS implantation (**Medtronic Vanta™**)

The Outcome

- Two weeks following permanent implantation:
 - >90-100% relief with 0/10 pain on most days
 - No adverse effects
 - Occasional, non-painful paresthesias ("Tingling")
- Improved function and quality of life
 - Attend more social activities
 - Able to brush teeth and hair
- Sustained relief and functional improvement at 5 month follow up

Images

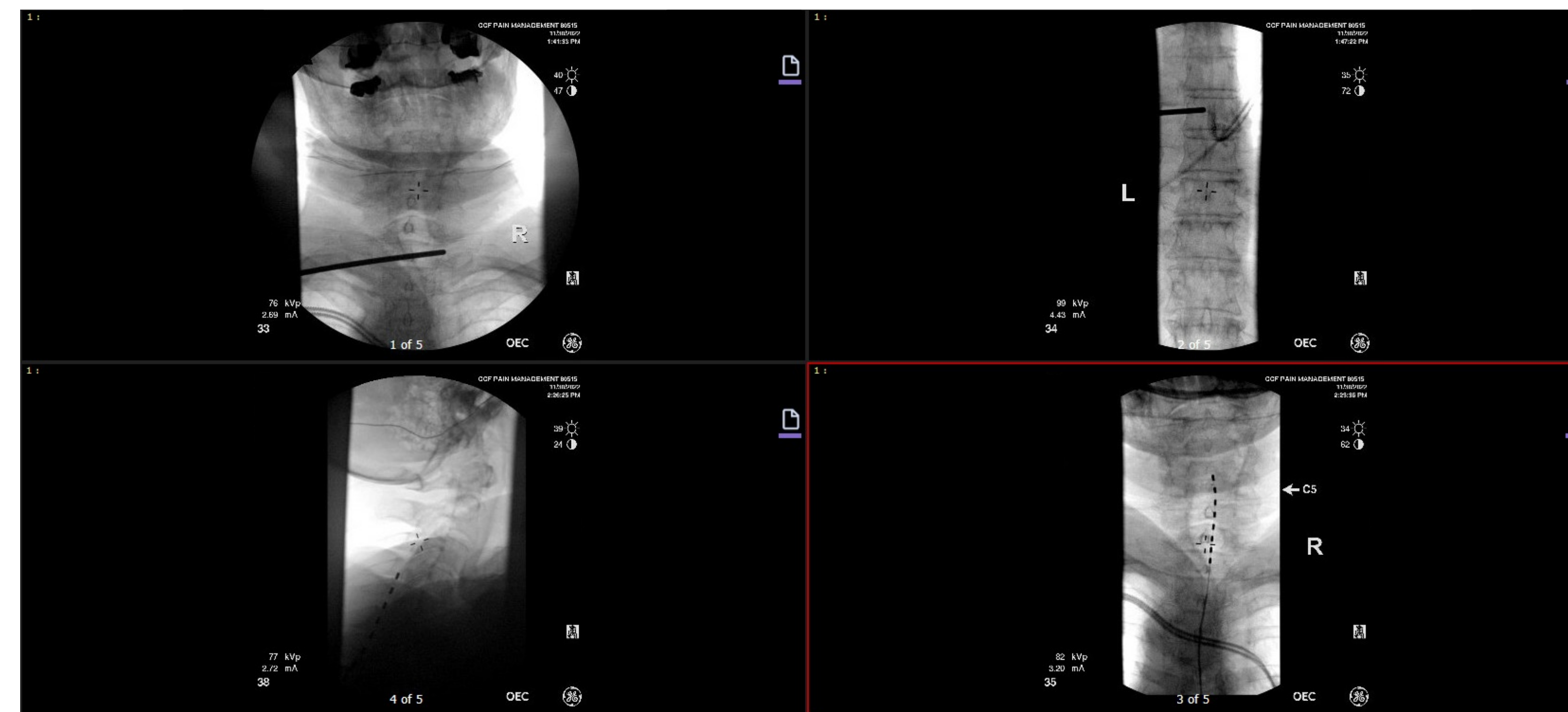


Image 1: SCS Trial

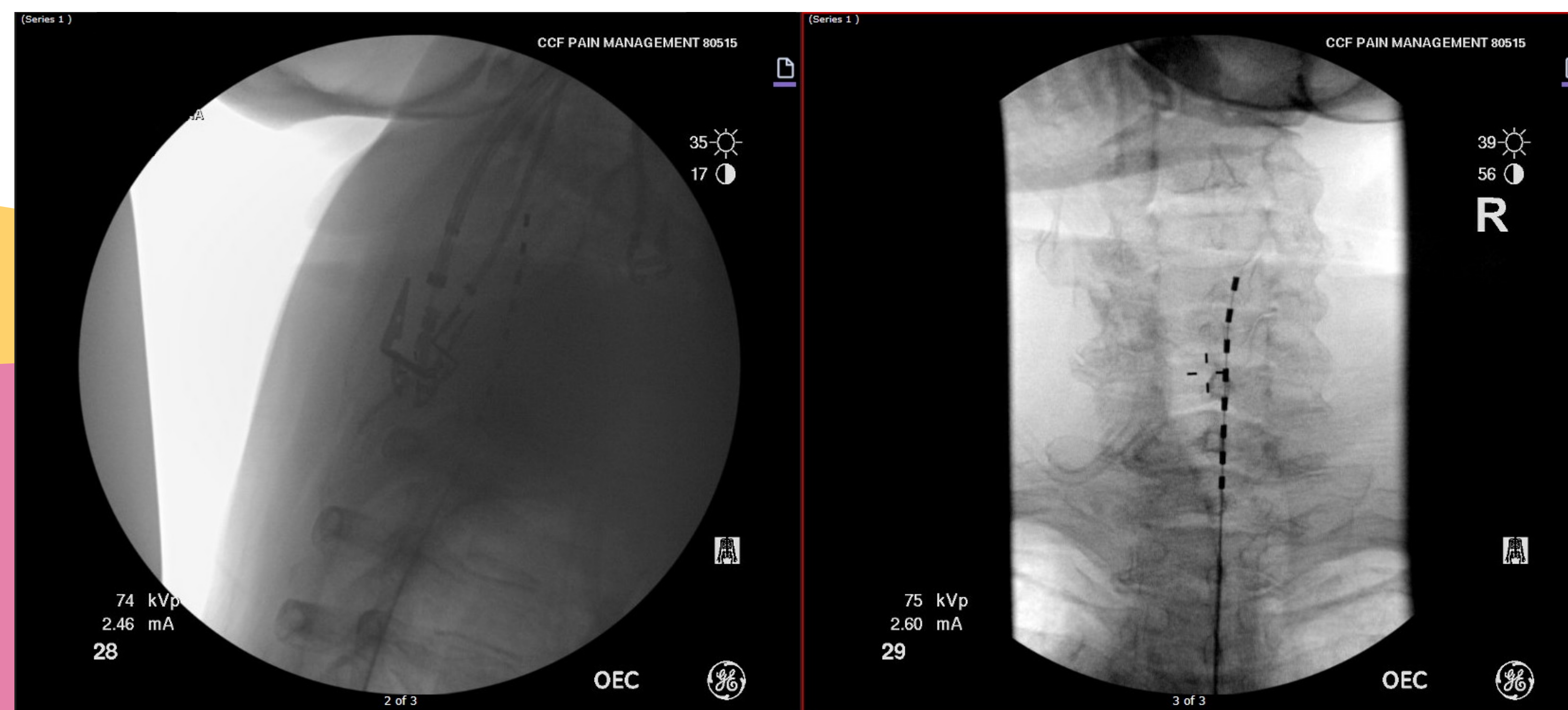


Image 2: SCS Implantation

Discussion

- Review of PHN patients treated with neuromodulation:
 - Large numbers of patients treated with traditional SCS (i.e., infrequent dorsal root ganglion stimulation, burst SCS, and high-frequency SCS)[1]
 - Long-term pain relief (67.9%), mean follow up of 12.85 months
 - PHN head and facial pain treated via placement of leads in cervical spine or cervicomedullary junction[2]
 - Satisfactory pain relief for a mean of 4.6 versus 4.2 years
- Benefit of spinal neuromodulation: lack of an external device
- Visually impaired patients can be ideal candidates
- Use of a non-rechargeable implantable pulse generator

References

- [1] Isagulyan E, Tkachenko V, Semenov D, et al. The Effectiveness of Various Types of Electrical Stimulation of the Spinal Cord for Chronic Pain in Patients with Postherpetic Neuralgia: A Literature Review. Pain Res Manag. 2023;2023:6015680.
- [2] Chivukula S, Tempel ZJ, Weiner GM, et al. Cervical and cervicomedullary spinal cord stimulation for chronic pain: efficacy and outcomes. Clin Neurol Neurosurg. 2014 Dec;127:33-41.