

CRPS Successfully Managed with Peripheral Nerve Stimulation: A Case Report

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Background

- Complex Regional Pain Syndrome (CRPS) is characterized by greater than expected or prolonged pain, typically following a traumatic injury. [1]
- Currently, no universally accepted treatment regimen is available to patients with CRPS.
- Multimodal therapy includes patient education, lifestyle changes, physical therapy, medical therapy, and/or interventional procedures. [2]

Case

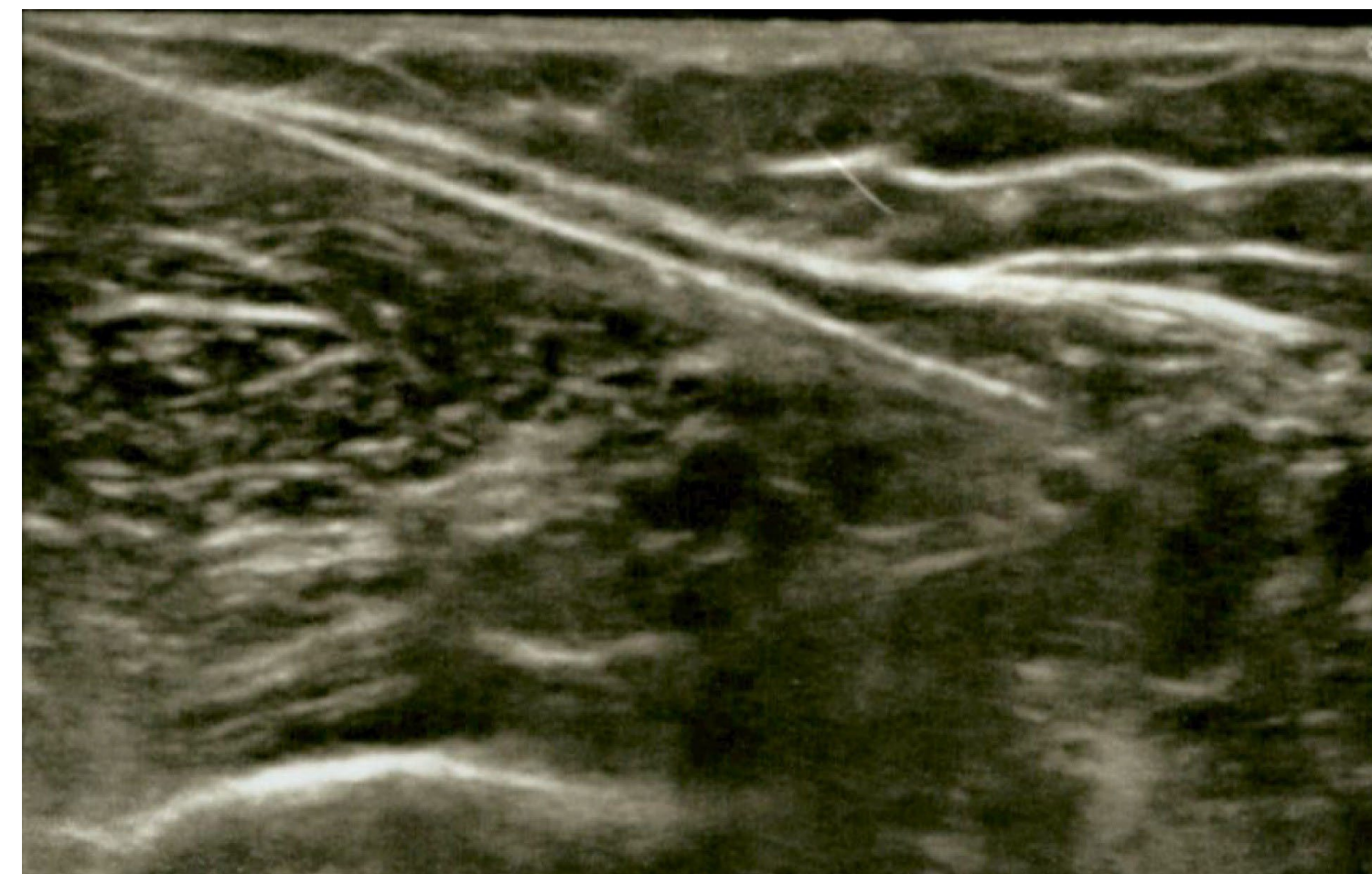
- 61-year-old with persistent left hand and wrist pain following traumatic injury and surgical fixation for a forearm fracture.
- Subsequently developed worsening pain, range of motion, and swelling in the left extremity.
- The patient tried and failed conservative measures, including NSAIDs, PT, narcotics, a TENS unit, and two stellate ganglion blocks.
- Proceeded with neuromodulator 60-day peripheral nerve stimulation (PNS) targeting median and radial nerves.

Results

- 2-week follow-up: Patient reported improved pain to 5/10
- 1-month follow-up: Pain 0/10 without using pain medications; reported decreased allodynia.
- 2-month follow-up: Pain 0/10 while proceeding with physical therapy to improve hand and wrist range of motion and strength.
- PNS trial extended beyond 60 days due to the patient's subsequent forearm hardware removal surgery – to mitigate the risk of CRPS recurrence.



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Conclusion

- Patients with CRPS who fail conservative measures can potentially benefit from PNS.
- Here we present a patient who had complete resolution of their pain following the intervention.

Citations
1 U.S. Department of Health and Human Services. (n.d.). *Complex regional pain syndrome fact sheet*. National Institute of Neurological Disorders and Stroke. Retrieved July 23, 2022, from <https://www.ninds.nih.gov/health-information/patient-caregiver-education/fact-sheets/complex-regional-pain-syndrome-fact-sheet>
2 Kessler, A., Yoo, M., & Calisoff, R. (2020). Complex regional pain syndrome: An updated Comprehensive Review. *NeuroRehabilitation*, 47(3), 253–264. <https://doi.org/10.3233/nre-208001>
3 https://commons.wikimedia.org/wiki/File:Median_Nerve.jpg > www.scientificanimations.com , CC BY-SA 4.0, via Wikimedia Commons