A Novel Presentation of Lower Extremity Complex Regional Pain Syndrome (CRPS) following Lumbar Laminectomy

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INTRO

- A 44 yo woman with left sided lumbar radiculopathy underwent left L4–S1 laminectomy and discectomy.
- In PACU, she developed severe left lower extremity pain with erythema and edema.
- Deep venous thrombosis (DVT) was ruled out with duplex ultrasound.
- Due to the disproportionate pain and vasomotor changes, complex regional pain syndrome (CRPS) was suspected.

METHODS

- This observational case report describes the development of CRPS following lumbar spine surgery.
- Clinical information was obtained through review of the medical record and documented patient outcomes.
- Treatment outcomes were assessed based on reported pain relief and changes in lower-extremity swelling following conservative management and spinal cord stimulator (SCS) trial.

RESULTS

- Initially, she was treated with two left L4-S1 transforaminal epidural steroid injections, medication management, and physical therapy.
- But she continued to have significant pain despite these interventions.
- We proceeded with an SCS trial with Nevro high-frequency 10 kHz stimulation.
- She reported greater than 60% pain relief during the trial with improvement in swelling and edema of her lower extremity.

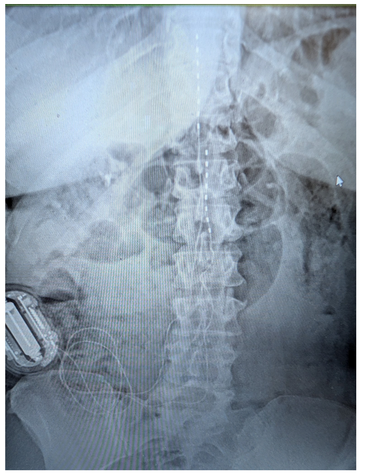
DISCUSSION

- Postoperative CRPS after lumbar laminectomy is rare complication of spine surgery.
- This case highlights the importance of maintaining a high index of suspicion in this subset of patients.
- Early recognition of CRPS and timely initiation of targeted therapy have been shown to improve symptom control and functional outcomes.
- Awareness of this rare presentation may help with earlier diagnosis and intervention.

Lower extremity CRPS is a possible post-operative complication of lumbar laminectomy.

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