

BACKGROUND

Persistent pain after lumbar instrumentation can be difficult to localize because multiple pain generators may coexist after lumbar surgery. **Painful spinal hardware** is a recognized cause of postoperative pain but **confirming hardware as the primary pain generator is challenging.**

CASE

- **62-year-old man** with persistent lumbar pain localized to his instrumentation
- **Lumbar fusion/laminectomy (2000)**
  Spinal cord stimulator: placement 2008 → replacement 2020 → removal 2023
- **Revision lumbar surgery (2023)**
- Persistent symptoms despite conservative management

PROCEDURE

- Targeted fluoroscopically guided peri-hardware injections at **L3, L4, and L5**
- At each level: 4 mL **lidocaine** + 1 mL **ketorolac** 15 mg/mL + 1 mL **dexamethasone** 4 mg/mL

Ketorolac and dexamethasone were used off-label for this indication.

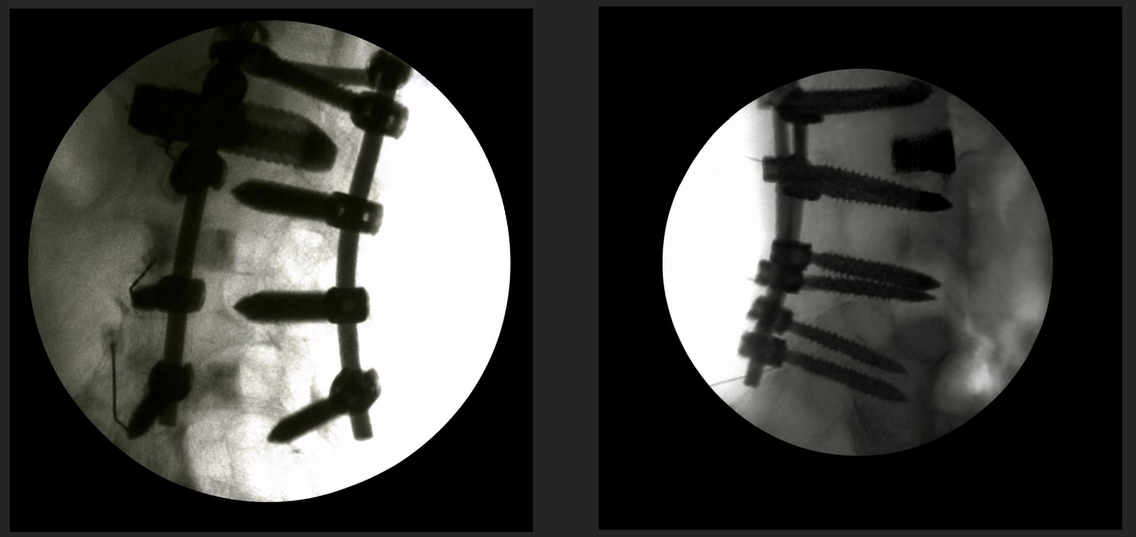


Diagnostic Peri-Hardware Injection for Suspected Painful Spinal Hardware in a Patient with Persistent Postoperative Pain

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Targeted L3–L5 peri-hardware injections reduced pain from 10/10 to 1/10 immediately.

Pain remained **2/10** the next day, with improved sleep and meaningful relief lasting about **1 month.**



Representative fluoroscopic views demonstrating lumbar instrumentation and targeted peri-hardware injection adjacent to the L3–L5 hardware.

Patient consent obtained. All protected health information was de-identified.





KEY OUTCOMES

- Residual pain was **less harsh and more manageable**
- **Sleep improved**
- Clinically meaningful relief persisted for **~1 month**
- Repeat injections produced **reproducible symptomatic benefit**
- Prior peri-hardware injections provided **consistent symptomatic relief**, with **repeat procedures** performed when pain recurred

CLINICAL TAKEAWAY

A **significant response to targeted peri-hardware injection** may support spinal instrumentation as a **potential pain generator** in selected patients with persistent postoperative pain.

REFERENCES

1. DePalma MJ, Ketchum JM, Saullo TR. Etiology of chronic low back pain in patients having undergone lumbar fusion. Pain Med. 2011;12(5):732-739.

2. Wild A, Pinto MR, Butler L, Bressan C, Wroblewski JM. Removal of lumbar instrumentation for the treatment of recurrent low back pain in the absence of pseudarthrosis. Arch Orthop Trauma Surg. 2003;123(8):414-418.

