

Paraspinal Ketorolac Injection for Chronic, Refractory Lower Back Pain: A Case Report



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INTRO

- Over 80% of adults will experience low back pain in their lives.¹
- Low back pain is associated with both high healthcare costs and indirect costs due to lower productivity and missed work.
- Review of literature suggested that non-steroidal anti-inflammatory drugs (NSAIDs) are effective for short-term symptomatic relief in patients with acute and chronic low back pain without sciatica.^{2,3}
- However, limited research has been performed on the effectiveness of injection of NSAID for treatment of acute low back pain.

CASE DESCRIPTION

Chief Complaint:

- 73-year-old male with acute on chronic low back pain.

History and Physical Exam:

- Patient presented with **8/10 intractable low back pain without radicular symptoms** that worsened with ambulation.
- Inspection revealed hypolordosis of the lumbar spine.
- There were **palpable trigger points, tight paraspinal musculature with tenderness to palpation at the L4-L5 levels bilaterally** with significantly reduced range of motion.

Imaging:

- Lumbosacral radiograph was significant for degenerative changes.

Prior Treatments:

- Physical therapy was not completed due to severity of pain.
- Tylenol, Robaxin, and Gabapentin no longer provided adequate relief.

Intervention:

- **Ketorolac 30mg (1cc) + Lidocaine 1% (4cc) trigger point injection (TPI) with peppering technique** was administered to the **L4-L5 lumbar paraspinals** bilaterally.

RESULTS

- **1-week post-injection, the patient reports 80% improvement of his pain. He also endorsed substantial functional improvement in mobility, reporting ability to ambulate around his house without an assistive device.**

Intramuscular paraspinal ketorolac injections as an adjunct to trigger point injections can provide short-term and extended pain relief with functional improvement for patients with acute myofascial lower back pain.

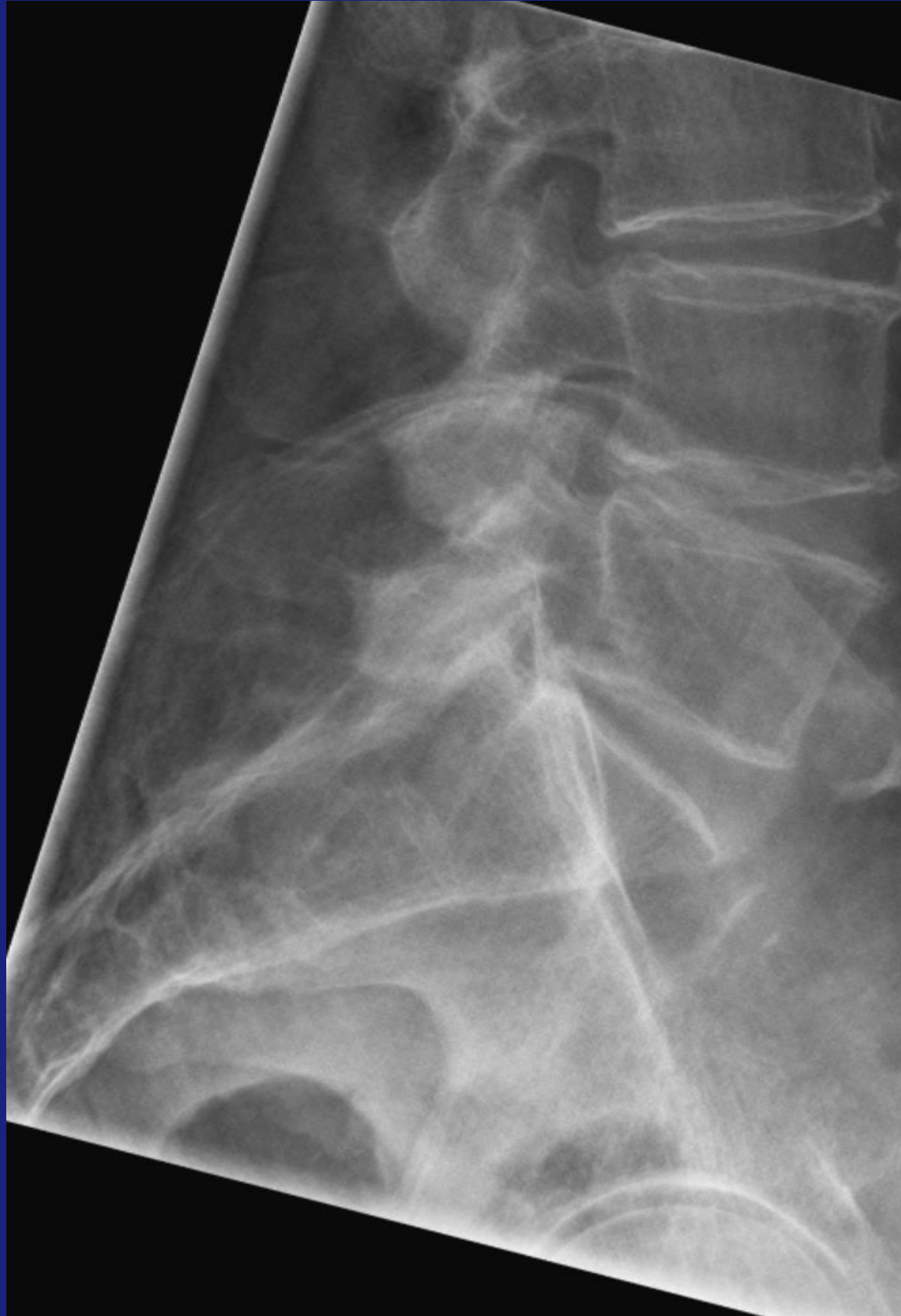


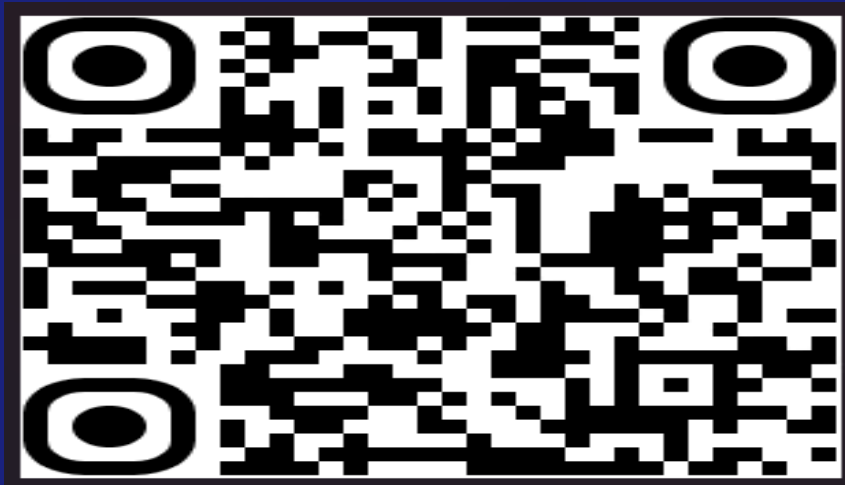
Figure 1.
Lateral view of lumbosacral spine. Facetogenic and discogenic degenerative changes at L3-S1.



Figure 2.
Lateral view of lumbar spine. Facetogenic and discogenic degenerative changes at L2-L5.



Figure 3.
AP view of lumbosacral spine. Facetogenic and discogenic degenerative changes at L spine and bilateral SI Joint.



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DISCUSSION

- While systemic NSAID administration has been shown to provide short-term pain relief in patients with low back pain, localized administration of NSAIDs provide a more effective response.
- Multiple studies have demonstrated the effectiveness of TPI, a local, targeted treatment approach, in relieving back pain.^{4,5}
- However, few studies have evaluated the efficacy of direct NSAID administration into the lumbar paraspinals in combination with TPI peppering technique for treatment of acute myofascial pain in the lumbar spine.
- **While the therapeutic effect of Ketorolac has been shown to last for up to 33 hours, our case report revealed improvements in symptoms and function up to 1 week post injection.**
- Further studies are needed to gain a better understanding of the efficacy of the combined treatment of NSAID injection with TPI in treating lower back pain.

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