Reverse "C" Prone Positioning for Infraneural Lumbar Transforaminal ESI in Severe Degenerative Foraminal Distortion: A Case Report

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INTRO

- Advanced lumbar spondylosis limits safe transforaminal access for lumbar transforaminal epidural steroid injection (TFESI) by narrowing the neural foramen and obstructing standard needle trajectories.
- This is a case demonstrating how reverse “C” positioning of the patient while prone can distract and open the ipsilateral neural foramen for better needle trajectory.

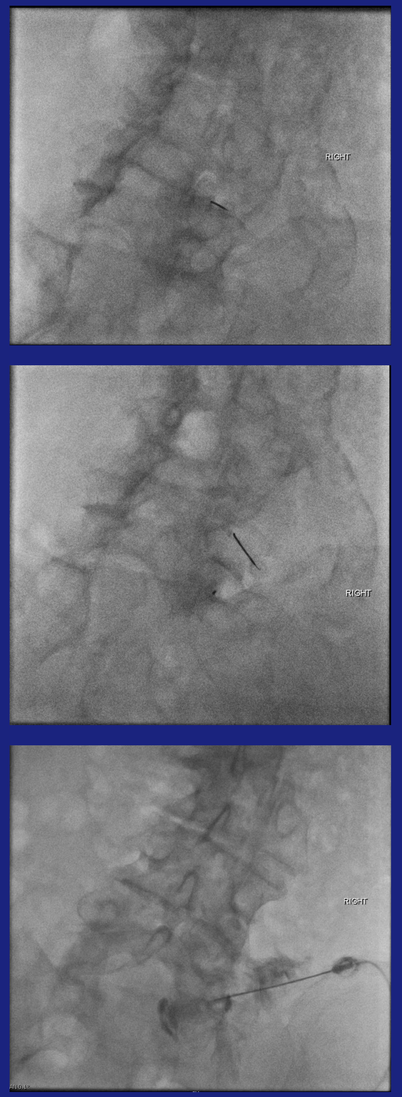
METHODS

- This is a single, retrospective case report.

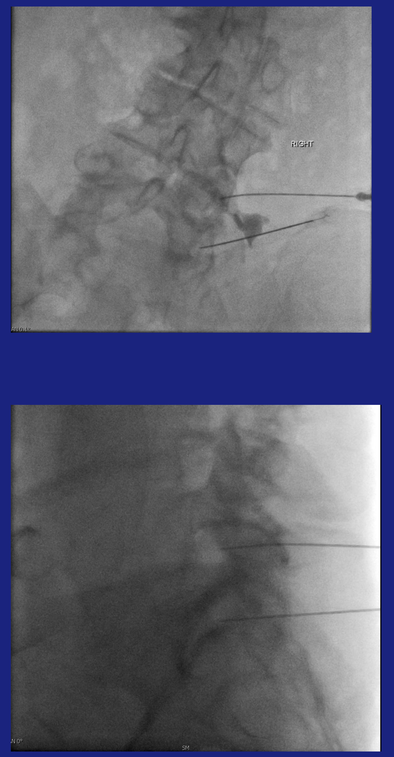
RESULTS

- 85 year-old male with intermittent right low back pain pain radiating to the right buttock and lateral hip.
- Patient failed conservative therapy.
- MRI revealed diffuse multilevel facet arthropathy, central canal stenosis and neural foraminal narrowing at L1-L5 with nerve root compression at levels L1, L3, L4 and L5.
- L4-5 and L5-S1 TFESI was pursued.
- Under routine prone positioning and ipsilateral oblique fluoroscopy, the inferior foramen could not be adequately profiled due to hypertrophic osseous anatomy.
- Patient was repositioned by sidebending away from the side of injection, creating a gentle reverse “C” shape through the thoracolumbar axis, improving fluoroscopic visualization of the inferior neural foramen and transforaminal working corridor.

Because hypertrophic bony anatomy kept the inferior foramen from being profiled with routine prone positioning and ipsilateral oblique fluoroscopy, the patient was side-bent away from the injection side into a gentle reverse "C" curve through the thoracolumbar spine, which improved visualization of the inferior neuroforamen and the transforaminal working corridor.



Figures 1-5. Fluoroscopic guidance for right TFESI. The sequence illustrates stepwise needle advancement and confirmation of appropriate epidural/perineural contrast spread under fluoroscopy at levels L4-5 and L5-S1.



DISCUSSION

- This case highlights patient positioning as an important technical adjunct in difficult lumbar TFESI. Sidebending the patient away from the injection side while prone functionally opens the ipsilateral neural foramen, reduces bony overlap, and facilitates safer needle access in severe degenerative distortion.
- This maneuver may be useful in patients with asymmetric spondylosis, facet arthropathy, osteophytic encroachment, or foraminal collapse as seen in this case.

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