

Background

- Epidural steroid injections (ESIs) are commonly utilized interventions for managing chronic pain, particularly in cases of lumbar spinal stenosis.
- Traditionally, ESIs are performed in the prone position, and occasionally in the lateral position to facilitate anteroposterior and lateral X-ray images.
- The two views with injected contrast media verify proper positioning of the needle tip and contrast/medication spread[1].
- Positioning issues necessitate alternative approaches for ESI's to be performed safely and effectively.
- These positioning challenges decrease accessibility of care to some patients with the greatest need.

Case

- The patient is an 88-year-old female with severe spinal canal stenosis with 10/10 pain who was unable to lie prone, or lateral due to pain and difficulty breathing.
- She was referred to our clinic for epidural as she was not a surgical candidate.
- After careful planning we were able to perform a lumbar epidural steroid injection in the seated position with AP and lateral imaging for confirmation as seen in figures 1-3.

Images

Fig. 1.



Fig. 2.



Fig. 3.



Discussion

- ESIs are essential tools in managing chronic pain associated with lumbar spinal canal stenosis and associated neurogenic claudication
- ESIs can be performed blind, using a loss of resistance technique, but there is no definitive way to confirm the level or adequate epidural spread by palpation alone as this is often unreliable [1].
- This case demonstrates a seldom used solution, wherein a fluoroscopic guided ESI was safely and effectively executed with the patient in the sitting position.
- Positioning at the end of the fluoroscopy table was the only position which allowed us to get both necessary views for successful execution of the procedure while still allowing for the proceduralist to place the epidural.
- Patients who have similar limitations should be evaluated for this alternate approach as it can be done safely and effectively.
- To improve access to patients with significant positioning limitations more case reports are needed
- Hopefully, this approach can be added to chronic pain literature as a viable alternative to lateral or prone positioning when these approaches are not feasible.

References

1. Bartynski WS, Grahovac SZ, Rothfus WE. Incorrect needle position during lumbar epidural steroid administration: inaccuracy of loss of air pressure resistance and requirement of fluoroscopy and epidurography during needle insertion. AJNR Am J Neuroradiol. 2005 Mar;26(3):502-5. PMID: 15760856; PMCID: PMC7976494.