

Successful Management of a Symptomatic Lumbar Facet Joint Cyst Using Fluoroscopic Aspiration

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INTRODUCTION

Lumbar facet (synovial) cysts are fluid-filled sacs that may compress adjacent nerve roots, leading to radicular pain or other neurologic symptoms. While surgical excision with decompression and fusion is a common treatment, it carries risks such as infection, bleeding, and extended recovery. Image-guided aspiration or rupture has emerged as a viable, minimally invasive alternative.

IMAGING

- A)** MRI T2 Dixon sagittal showing prominent right sided facet joint cyst.
B) MRI T2 lumbar spine axial measures cyst at 0.3x1x1.4 cm, impinging the exiting right L4 nerve root within neural foramen.
C) OR fluoroscopy guided needle imaging with location of cyst aspiration.

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CASE DESCRIPTION

We describe a 61-year-old female with a history of breast cancer and MVC twenty years ago with subsequent disc herniation, who presented with progressive right lower back pain radiating down the right leg with intermittent tingling. MRI revealed a right L4-5 facet joint cyst compressing the L4 nerve root. Conservative management for a few months, including acetaminophen, NSAIDs, methocarbamol, and lifestyle modification, provided minimal relief. An epidural steroid injection resulted in temporary symptom improvement, and she subsequently underwent fluoroscopic-guided cyst aspiration.



A 22G 3.5" spinal needle was incrementally advanced under intermittent fluoroscopy until the facet joint was reached. 0.5 ml of contrast was injected to confirm intraarticular spread and no vascular runoff. Aspiration yielded fluid, most likely originating from the cyst. The injectate of 1cc of 40 mg of triamcinolone acetonide plus 1cc of 0.25% Bupivacaine was then given. The patient reported relief of up to 80% immediately following the procedure. At 1-month follow-up, she reported sustained improvement in lower back and radicular symptoms with no procedure related complications.

CONCLUSION

CT-guided aspiration has demonstrated rapid symptom relief in many patients, with sustained benefits at one- to two-year follow-ups and minimal complications. Similarly, fluoroscopic-guided aspiration offers equivalent outcomes with quicker access and lower cost. Further, this fluoroscopic approach allows real-time visualization and precise needle placement with minimal tissue disruption. In this case, a fluoroscopic-guided aspiration of a symptomatic L4-5 facet cyst provided significant and sustained pain relief following the failure of conservative therapies. This outcome supports fluoroscopic aspiration as a potential first-line treatment for selected patients, particularly those unfit for or desiring to avoid surgery. Incorporating such minimally invasive procedures into clinical practice may reduce surgical burden while maintaining high efficacy in managing synovial cyst-induced radiculopathy.

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