



Case Report

Posterior epidural migration of a lumbar disc herniation

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ABSTRACT

Background: Posterior epidural migration of a lumbar disc fragment (PEMLDF) refers to the dorsal migration of disc material around the thecal sac that can lead to radiculopathy and/or cause a cauda equina syndrome. It is rare and the diagnosis is often just established intraoperatively.

Case Description: A 50-year-old male with a chronic history of low back pain and psychosis presented with PEMLDF originating at the L4–L5 level.

Conclusion: Lumbar disc herniations rarely present as PEMLDF resulting in symptoms varying from radiculopathy to cauda equina syndrome. These should be included among the differential diagnostic considerations for dorsolateral epidural lesions.

Keywords: Disc herniation, Epidural migration, Lumbar, Posterior

INTRODUCTION

Posterior epidural migration of a lumbar disc fragment (PEMLDF) may migrate dorsolaterally around the thecal sac and contributes to symptoms and signs ranging from mild radiculopathy to flagrant cauda equina syndrome. Here, we present a 50-year-old male with a chronic history of low back pain and psychosis, who suddenly developed bilateral lower extremity paresthesias, and weakness; on examination, he was paraparetic with perineal numbness and urinary retention (i.e., Frankel Grade C), and the lumbar magnetic resonance imaging (MRI) showed severe canal stenosis at the L4–L5 level, a mild L4–L5 disc bulge, and a large hypointense dorsal-lateral epidural mass resulting in severe thecal sac/cauda equina compression [Figure 1].

Surgery

As the patient exhibited an acute cauda equina syndrome, he underwent an emergent L4–L5 laminectomy. At surgery, a large posterior epidural disc fragment was identified; it had extruded/sequestered from the L4-L5 intervertebral disc, erupted through the posterior longitudinal ligament, and migrated posterolaterally, displacing the dura anterolaterally toward the left [Figure 2]. Postoperatively, the patient's leg pain and saddle anesthesia immediately improved, and within 2 months, he was fully intact.

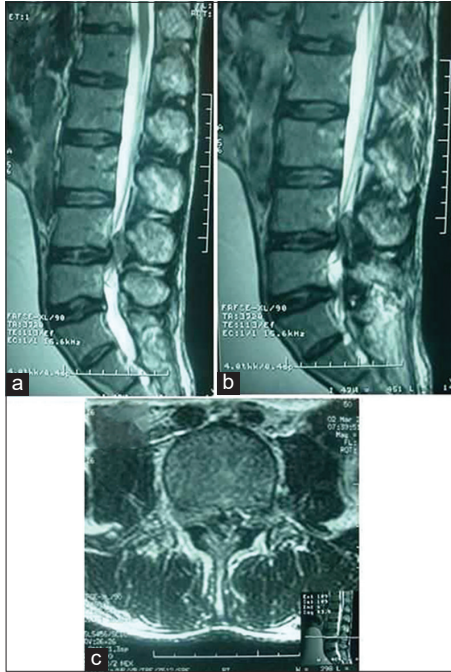


Figure 1: Spinal magnetic resonance imaging in T2-weighted sequences, sagittal (a and b) and axial (c) views demonstrating severe lumbar canal stenosis by a sequestered disc fragment at the level of L4–L5.

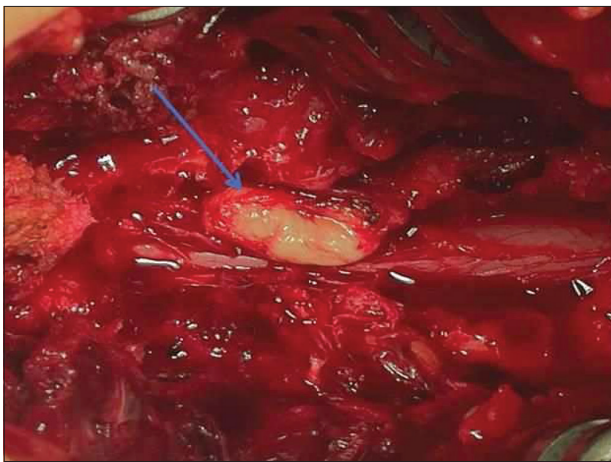


Figure 2: Intraoperative view demonstrating the right posterolateral epidural disc herniation (arrow) severely compressing the dural sac.

DISCUSSION

PEMLDF is rare and most commonly encountered in adults averaging 53 years of age; there is a clear male predominance.^[1,2] Due to the marked dorsolateral

migration of lumbar disc herniation^[3], it is usually associated with an acute cauda equina syndrome in more than 50% of patients.^[4] Here, MRI studies best demonstrate the dorsolateral disc migration; the disc is isointense on T1, hypointense on T2, and peripherally enhances with contrast, a finding attributed to inflammation/neovascularization encircling the sequestered fragment.^[4] These fragments can be readily removed utilizing a routine laminectomy/hemilaminectomy and the prognosis is typically good (e.g., 74% of full recovery after surgery).^[4]

CONCLUSION

Lumbar disc herniations are rarely presenting as PEMLDF resulting in symptoms varying from radiculopathy to cauda equina syndrome. These should be included in the differential diagnosis considerations for lumbar spinal dorsolateral lesions.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms.

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Conflicts of interest

There are no conflicts of interest.

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