

## A Case of Contralateral Foot Drop in a Left-Sided Herniated Nucleus Pulposus: A Neurological Curiosity

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### INTRODUCTION:

Foot drop is described as a significant weakness of ankle and toe dorsiflexion. Consequently, it affects their quality of life. Although the most common cause is peripheral nerve disorder, spinal disorder is not uncommon. We report a rare case of left-sided L3/L4 disc herniation with contralateral foot drop.

### REPORT:

A 40-year-old male presented with right lower limb radiculopathy pain and numbness. Three days later he developed a right foot drop. The symptoms were preceded by history of sudden forward flexion. He only presented to us three weeks later after failing traditional treatment. He had a right foot drop with muscle power of 1, sensory reduction at level of L3 and L4, and reduced knee reflex on right side. Straight leg raising (SLR) test positive on right side, and the cross SLR test was negative. The other part neurological assessments were normal.

There is loss of lumbar lordosis with no other abnormality seen on plain radiograph (Figure 1). Lumbar magnetic resonance imaging (MRI) revealed circumferential disc bulge with narrowed spinal canal (0.3cm) at level of L3/L4. The nucleus pulposus protrusion was more directed to the left side and impinged the exiting L3 nerve root. The right L3 nerve root was free (Figure 2a). Circumferential disc bulges at the level of L4/L5 with a spacious canal (1.0cm) and both exiting L4 nerve roots impinged (Figure 2b). The L5/S1 canal was spacious (Figure 2c).

After intensive discussion with musculoskeletal radiologist, the patient was scheduled for left side L3/L4 open discectomy. Intraoperative revealed a large sequestered nucleus pulposus. Nerve roots were not inflamed. At six weeks

post-surgery, the patient was asymptomatic and had no foot drop.



Figure 1: Lumbosacral Radiograph

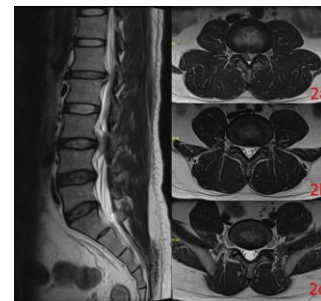


Figure 2: MRI Lumbosacral

### CONCLUSION:

A thorough clinical assessment and MRI analysis are crucial in managing a case like ours to prevent multiple surgeries.

### REFERENCES:

1. Wang Y, Nataraj A: Foot drop resulting from degenerative lumbar spinal diseases: clinical characteristics and prognosis. Clin Neurol Neurosurg. 2014, 117:33-9. 10.1016/j.clineuro.2013.11.018