

L2 Retrolisthesis with L2/L3 Disc Herniation: Is Fusion Needed?

¹Zulkifli EM; ¹Chung WH; ¹Chiu CK; ¹Chan YW; ¹Kwan MK

¹Department of Orthopedic Surgery, University Malaya Medical Centre, Selangor, Malaysia.

INTRODUCTION:

Retrolisthesis may cause foraminal and central stenosis, and it is a significant cause of leg or back pain. When disc herniation is combined with retrolisthesis, it poses the question of whether discectomy or decompression alone is enough, or whether fusion is needed. This report highlights one such case.

REPORT:

A 63-year-old lady presented with one month of radiating right thigh pain with occasional mechanical low back pain.

Radiographs and CT showed a 4mm retrolisthesis of L2 over L3. MRI showed prolapsed disc at L2/L3 causing lumbar spinal stenosis and impingement of the right L2 exiting nerve root and right L3 traversing nerve root.

An open transforaminal lumbar interbody fusion (TLIF) of L2/L3 was done. Post-surgery, the patient was well, with reduced pain and numbness over the right thigh.

Compared to those without retrolisthesis, patient with retrolisthesis and disc herniation has worse pain and function up to 4 years after discectomy, but there is no difference at the 8-year follow-up. The initial worse pain and function are due to the hypermobility present in retrolisthesis, and the lack of difference later may be due to development of spondylotic changes that stop any more motion.

Another study suggests those presenting with radicular pain with no evidence of instability should be managed with discectomy alone while those with low back pain or those with instability should be managed with discectomy and fusion.

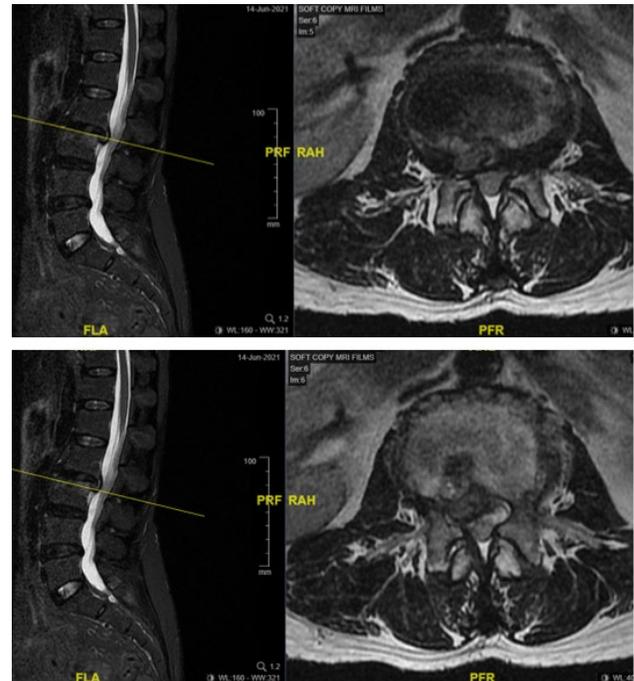


Figure 1: MRI showing L2/L3 disc herniation with central, right lateral, and right foraminal stenosis

CONCLUSION:

In this case study, the patient had L2 retrolisthesis with L2/L3 disc prolapse causing both foraminal and central stenosis. Therefore, a TLIF was done to address both the disc herniation and the retrolisthesis.

REFERENCES:

1. Kang K. Retrolisthesis and lumbar disc herniation: a postoperative assessment of patient function. *The Spine Journal*. 2013 Apr 1;13(4):367-72.
2. Shenoy K. Retrolisthesis and lumbar disc herniation: a postoperative assessment of outcomes at 8-year follow-up. *The Spine Journal*. 2019 Jun 1;19(6):995-1000.