

Interlaminar Approach Endoscopic Lumbar Decompression Surgery in Recurrent Lumbar Spinal Stenosis after Posterior Spinal Instrumentation Fusion

¹Lim WK;¹Hezery H;¹Fadzrul A;¹Lim TS

¹Orthopaedic Department, Hospital Sultan Abdul Aziz Shah, Persiaran Mardi-UPM, 43400 Serdang, Selangor, Malaysia.

INTRODUCTION:

Adjacent segment disease and recurrent lumbar stenosis are the long-term sequelae for lumbar spine decompression surgery. Reoperation is usually required to decompress the spinal canal and nerve root.

REPORT:

An 80-year-old lady, with history of lumbar spine L3 and L4 total laminectomy, posterior instrumentation and fusion at lumbar spine L3-L5 20 years ago, presented with chronic low back pain and bilateral lower limb radicular pain which recurred after many years of her prime operation. Her symptoms were not improving with physiotherapy and facet joint injection. Clinical examination had no significant finding. Imaging showed adjacent segment disease with lumbar spinal stenosis. Interlaminar approach endoscopic laminotomy and decompression of bilateral L4/L5, L5/S1 was done. Intraoperatively noted abundant fibrous tissue at previous operation site and thickening of remaining ligamentum flavum at the L4/L5 facet joint. Post-decompression, the spinal canal, shoulder and axillar of exiting nerve root bilateral L4 and L5 were clearly visualised and free from adhesion or compression. Post operatively, her radicular symptom lessens. No post-operation complication noted.

Adjacent segment disease with recurrent lumbar spine stenosis are the complications for lumbar spine decompression and fusion surgery. Study showed that 11.65% of patients who underwent spinal stenosis surgery required reoperations. The causes for reoperation are inadequate decompression or instability¹. Interlaminar approach endoscopic decompression is more favorable in view of minimally invasive and allowed us to access the lamina and facet joint without impeded by the implants in previous surgery.



Figure 1: X-ray lumbosacral noted fused L3-L5 vertebra, narrowed disc space with end plate sclerosis at L2/L3 and L5/S1.

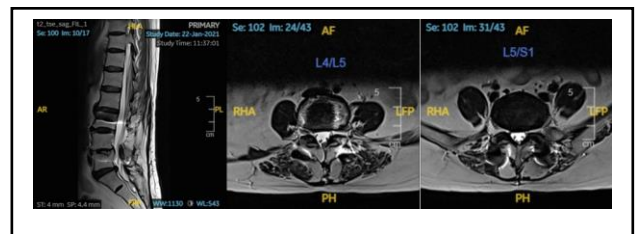


Figure 2: MRI lumbosacral noted foraminal stenosis at bilateral L4/L5, L5/S1 with thickening ligamentum flavum and facet hypertrophy.

CONCLUSION:

Interlaminar approach endoscopic decompression is an ideal surgery for recurrent lumbar stenosis as it is minimally invasive yet able to achieve sufficient decompression.

REFERENCES:

1. Goel SA, Modi HN. Reoperations Following Lumbar Spinal Canal Stenosis. Indian J Orthop. 2018 Nov-Dec;52(6):578-583.