

# Pain Management of a Grade IV Spondylolisthesis Post-Surgery

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### Introduction

A spondylolisthesis is when a vertebral body slips forward in relationship to the vertebra beneath it, most commonly occurring at the L5/S1 level. Spondylolisthesis occurs in approximately 6% of the population. The condition is graded 1-4 based on the increased percentage of slippage at the vertebral level.

Spondylolistheses are often asymptomatic but can cause chronic low back pain with radicular pain such as numbness, tingling, and muscle weakness. Many patients are sufficiently treated conservatively, while others require surgical intervention.

### Case Report

A 49-year-old female reported experiencing back pain with numbness and tingling down the back of both legs and into the feet, which started in April 2019. The pain is worse down the right leg compared to the left, and the pain continued to worsen despite using Tramadol. X-ray of the lumbar spine showed L5 displaced inferiorly to S1 with only 22 mm of vertebral body overlap. Final diagnosis was a severe grade IV spondylolisthesis (>75% displacement) and essential dislocation of L5/S1. In October 2019, she underwent an L4-S1 laminectomy and fusion to stabilize the spine. The spondylolisthesis was not reduced due to concerns about increasing spinal pressure. The patient reported increased pain after surgery, described as a bilateral stabbing and pressure like pain from the lower back down both legs, rated as 8/10. At this point, she presented to pain management in an effort to better control her pain and symptoms.

### References:

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### Discussion

In an effort to control the patient's pain, bilateral L5 and S1 transforaminal epidural steroid injections were performed. One round of injections resulted in 80% improvement of axial back and leg pain, and resolved the ongoing numbness and tingling. However, the patient still reported back pain with prolonged sitting. A second round of bilateral L5 and S1 transforaminal epidural steroid injections was performed, which only resulted in 60% of pain relief. At this time, the patient did not report much pain, but her major issue was ongoing numbness in the right lower back, right foot, and left posterior thigh. The patient was given information about spinal cord stimulators and referred to a company representative, but has declined to pursue this at this time.

### Conclusion

Spondylolisthesis are often asymptomatic, but can present with acute or chronic lumbar pain, numbness, paresthesias, and muscle weakness. Treatment goals include reducing pain, and preventing disease progression. Even if surgical stabilization is successfully accomplished, patient's will likely still need further pain management. Pain management should start with oral analgesics, and progress to steroid injections as needed. If prior treatment fails, a spinal cord stimulator trial can be offered to help maintain pain.

### References cont'd:

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