

Spinous process distraction and fusion for degenerative lumbar stenosis: a large case series at a single institution



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Introduction

Interspinous process distraction devices have been used in patients with lumbar stenosis and neurogenic claudication with limited success. The sp-fix (Globus Medical Inc., Audubon, PA) is a device that combines distraction with a fusion scaffold. This alteration may ameliorate the weaknesses of the early device due to added biomechanical stability.

Methods

We report a retrospective case series of 102 consecutive patients who underwent surgery for placement of the SP-Fix device for degenerative lumbar stenosis with neurogenic claudication (with and without scoliosis and/or spondylolisthesis) and analyze our institution's experience in patient-reported symptomatology (using the Oswestry Disability Index [ODI]), complication rate, and reoperation rate in this population.



Image of SP-Fix device. Permission from Globus Medical.

Results

Of the 102 patients, 44% had spondylolisthesis, 5% had scoliosis, 5% had both scoliosis and spondylolisthesis, and 46% had spinal stenosis without deformity. 8.8% of patients required reoperation (5 for spinous process fracture, 2 for infection, and 2 for failure of symptomatic improvement). Forty-eight patients completed preoperative and postoperative ODI surveys at the 3-month followup, with a mean improvement of 34%. On 91 patients in which data was available, 82% self-reported improvement in leg pain

Conclusions

The case series suggests that patient who undergo placement of the sp-fix experience short-term symptom improvement and lower rates of reoperation than prior generation spinous process distraction devices. Long-term follow up is required to validate the use of this device as an alternative to traditional lumbar laminectomy with or without fusion as a treatment for lumbar spinal stenosis with neurogenic claudication

Learning Objectives

By conclusion of this session, participants should 1) gain better insight into use of interspinous fixation devices 2) understand the indications for sp-fix placement 3) discuss the benefits and drawbacks of sp-fix placement when compared to traditional approaches.



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