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Long Term Follow-Up of Outpatient L5-S1 Lumbar Interspinous Fixation for Degenerative Spinal Stenosis Using The INSPAN Device

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ABSTRACT

Background: Interspinous devices (IPD) have been demonstrated to treat spine degenerative pathology acting a spacer during lumbar extension. There is minimal literature with the use of distraction and fixation device at the level of L5-S1. We aim to demonstrate the long-term outcomes of IPD at L5-S1.

Study design: We evaluated patients with spinal stenosis and degenerative disc disease who were treated with open decompression and distraction of the spinous processes at L5-S1 using a novel interspinous device. This is a retrospective review of prospectively collected data under an IRB approved study cohort.

Methods: The charts of patient undergoing lumbar decompression with Interspinous Distraction, Fixation using Inspan (INSPAN LLC) in the were reviewed over a five- year period. A total of 43 patients had interspinous device placed at L5-S1.

Results: 122 surgical cases of lumbar decompression with interspinous fixation, spanning between the timeframe of September 2011 to October 2016. A total of 43 patients had instrumentation at L5-S1. Total female population was 72%. The median age of the patients included in the population was 46.7+/-9.1 years with a median BMI of 26.5+/-10.8 kg/m². Two-year VAS and ODI showed significant improvement form 8.5+/-2.2 to 2.2+/-1.6 and 45.3+/-13.4 to 16.8 +/-4.4. All surgeries took less than one hour. There was a total of 2 revision cases, one patient requiring only removal and other patient converted to a L5-S1 fusion with pedicle screws. No other revisions were noted up to five year follow up and no complications.

Conclusion: Long term outcome demonstrated improved outcomes in patients who underwent Interspinous distraction decompression in an ambulatory surgery center using the INSPAN IPD at L5-S1 for Degenerative Spinal Stenosis. There were two revisions, one was an implant removal and converted to hemilaminectomy. The second was converted to removal and fusion with pedicle screws and interbodies. There were no complications or blood transfusions.

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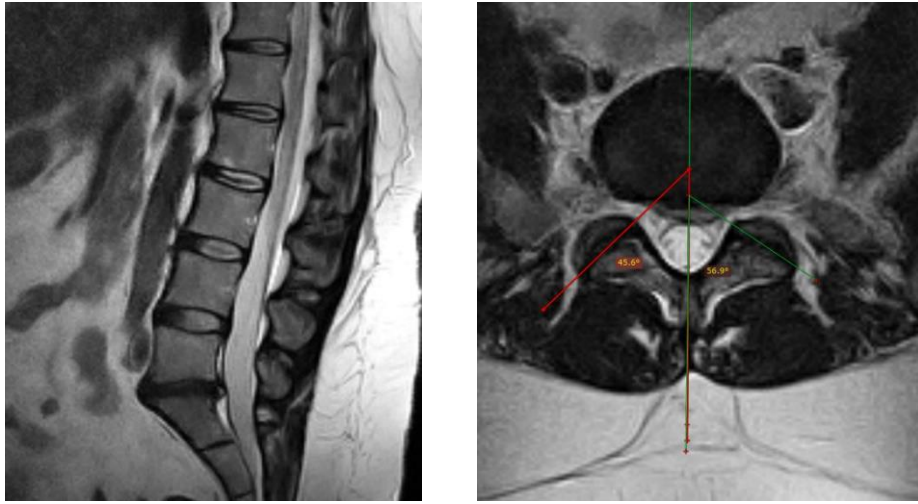


Fig. 1. Preoperative MRI Scan

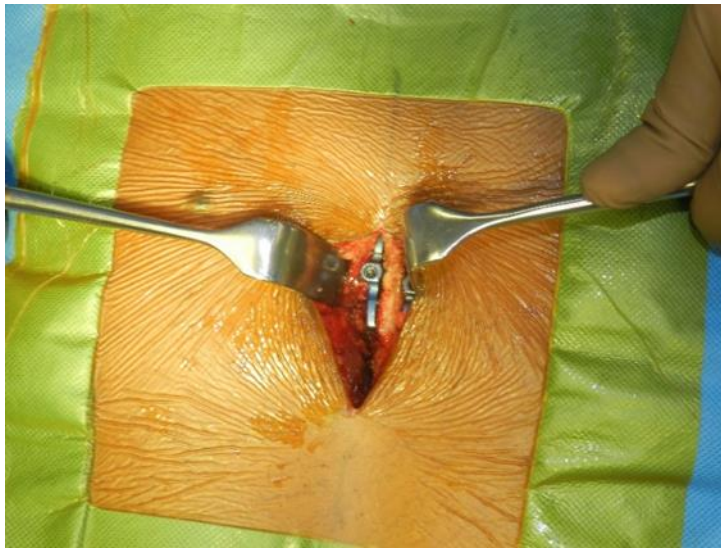


Fig. 2. Intraoperative photo

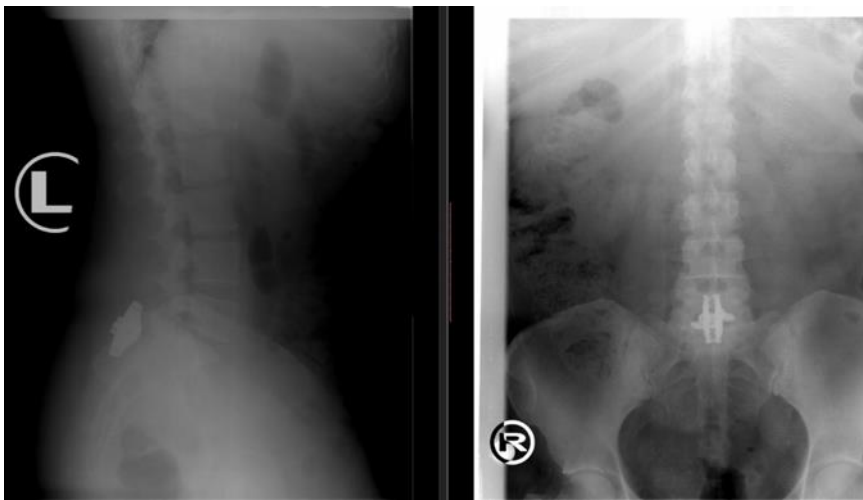


Fig. 3. Postoperative X-rays