

Failure Rates and Complications of Interspinous Process Stabilization: A European Multicenter Study

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Introduction

Spacers placed between the lumbar spinous processes represent a promising surgical treatment alternative for a variety of spinal pathologies. They provide an unloading distractive force to the stenotic motion segment and have the potential to relieve the symptoms of degenerative disc diseases. We reviewed the complications and failure/reoperation rates in a series of 776 patients who underwent placement of seven different interspinous devices.

Methods

The medical records of patients who underwent placement of the Interspinous Device were retrospectively evaluated, and demographic information, diagnosis, and preoperative pain levels were recorded. Preoperative and postoperative clinical assessment of the patients were based on VAS scale. After a minimum of three years after IPD placement, information on long term outcomes was obtained from additional follow up or patient medical and radiological records.

Results

776 patients affected by symptomatic single- or two-level segmental lumbar spine degenerative disease underwent placement of interspinous device. The complication rate was 11%. The ultimate failure rate requiring additional surgery was 23%.

Conclusions

The interspinous device is not a substitute for a more invasive three column fusion procedure in cases of major instability and spondylolisthesis. Overdistraction, poor bone density, poor patient selection may all be factors in the development of complications. Careful attention should be paid preoperatively to bone density, appropriate implant size and optimal patient selection.

Learning Objectives

By the conclusion of this session, participants should be able to pay attention to the optimal patient selection, appropriate implant size and be aware of possible complications.

References

- 1) Degenerative lumbar spinal stenosis with neurogenic intermittent claudication and treatment with the Aperius PercLID System: a preliminary report. Galarza M, Fabrizi AP, Maina R, Gazzeri R, Martínez-Lage JF. Neurosurg Focus. 2010 Jun;28(6):E3.
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Interspinous device migration at L4-L5 level

