

Title of Abstract: Post Spinal Fusion Junctional Disc Herniation Syndrome Treated With Endoscopic Spine Surgery

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Introduction: Fusions of the cervical and lumbar spine are often followed within months or several years by protrusion of discs at the adjacent level or levels. Mobility lost at the fused levels is thought to be transferred to the adjacent segment/s increasing stress on the disc, resulting in early recurrent protrusion at that level. In a number of anterior cervical fusions (ACF) and lumbar fusions this occurs in both superior and inferior adjacent levels simultaneously.

Materials and Methods: Case reports 250 of post spinal fusion junctional disc herniations (360) (also called transitional discs, or adjacent segment failure) are reported, as well as a review of the literature to determine their frequency of occurrence following fusions of the lumbar and cervical spine.

Results: Average time to return to work was 14 days. At an average follow-up of 24 months. For single level, 92% had good to excellent symptomatic relief and spinal motion preservation. There were no intraoperative complications. Cervical and lumbar endoscopic minimally invasive spinal surgery (MISS) combined with laser thermodyskoplasty, is an ideal way to treat junctional discs to avoid a sequential recurrence. Treating protruded cervical and lumbar discs with MISS as the initial procedure of choice would avoid destabilizing adjacent segments, largely prevent post spinal fusion junctional disc syndrome and preserve spinal segmental motion.

Conclusion: MISS provides the optimal method to treat post spinal fusion junctional disc syndrome of the cervical and lumbar spine with minimal morbidity, and no threat of further junctional recurrence and at less cost. Its use as the initial treatment of choice would greatly lessen the incidence of this syndrome and preserve spinal segmental motion.

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