

Dynamic stabilization for spinal canal stenosis and spondylolisthesis due to a cyst

SYMPTOMS

A 58-year-old male patient who had already had chronic intermittent spinal claudication symptoms presented to the hospital. He had high-grade left foot flexor paresis for which he came to the hospital on an acute basis.

DIAGNOSIS

The standing functional X-ray image demonstrated a stable 2-mm offset consistent with a grade I Meyerding spondylolisthesis at L3/4 with suspected spinal canal stenosis with a joint or ligamentum flavum cyst. Decompression of the spinal canal and removal of the cyst was decided upon together with the patient. Due to the listhesis, it was decided to perform posterior stabilization using a dynamic screw-rod system.

THERAPY

After an approximately 10-cm long midline skin incision and visualization and incision of the paramedian fascia bilaterally, the paravertebral muscles were mobilized using a periosteal preparation technique. After mobilization of the muscle extending laterally to joints L2/3 and L3/4, identification of the points of entry and placement of the pedicle screws.

After partial hemilaminectomy of L3 and 4, ablation of the base of the spinous processes and transection as well as removal of the ligamentum flavum. A perfused ligamentum flavum cyst was

seen and it was subsequently sharply dissected away from the dura. In addition, the ligaments also had to be mobilized from the contralateral side using undercutting on the opposite side in order to decompress the spinal canal bilaterally. After decompression of the recess stenoses, neuroforaminal stenoses and neurolysis of the L4 nerve roots bilaterally, the dural tube and the afferent nerve roots were also adequately decompressed. After introducing the curved rods and securing them using the locking screws, careful hemostasis, drainage and wound closure in layers.

“The patient demonstrated discrete signs of instability and for this reason, simple decompression of the spinal canal stenosis with removal of the cyst carried the risk of being additionally destabilizing. Because of the listhesis, we decided on additional dynamic stabilization with cosmicMIA™.”



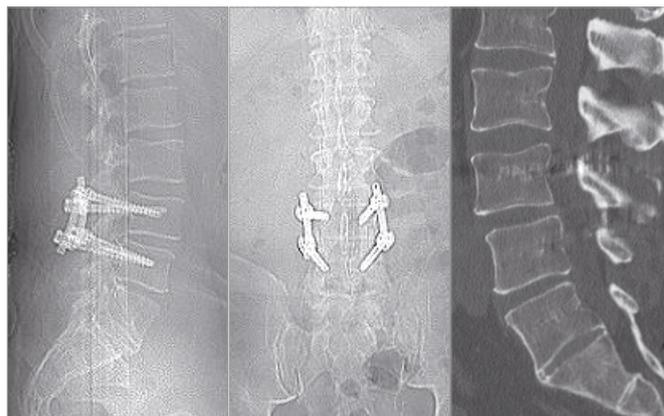
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Pre-op: Listhesis L3/4 during reclination, inclination and MRI



Pre-op: Reclination Pre-op: Inclination Pre-op: MRI

Post-op: Dynamic stabilization of L3/4 with cosmicMIA™



Post-op: Stabilization of L3/4 Post-op: Stabilization of L3/4 Post-Op: MRI



For more information visit:
www.ulrichmedical.com/de/cosmicMIA.html