Minimally Invasive Posterior Cervical Discectomy, Preliminary Results and Complications

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Study design: Retrospective analysis of data of all patients treated by minimally invasive posterior discectomy for cervical radiculopathy between January 2004 and February 2008.
Objective: To describe our technique and report the outcome of minimally invasive posterior cervical discectomy (MI-PCD) using the MetRx tubular retractor system and surgical microscope.
Summary of background data: Although several studies have been published on posterior minimally invasive approaches to cervical radiculopathy, most have focused on decompression of the nerve root by laminoforaminotomy only without removal of the offending disc.
Methods: The hospital charts, MRI studies and follow up records of all the patients were reviewed. Outcome was assessed by neurological status, visual analog scale (VAS) for neck and arm pain and via the Short Form-36 Health Survey Questionnaire (SF-36).
Results: Thirty two patients were included in this study. The follow up time was 20 to 67 months (mean 39 months). Muscle weakness improved in all patients; sensory deficits resolved in 21 patients and improved in 7 patients. Analysis of the mean VAS for radicular pain, VAS for neck pain and all eight domains of the SF 36 showed significant improvement. Complications included one case of incidental dural tear without postoperative CSF leakage and one case of longstanding neck pain.
Conclusion: Minimally invasive posterior cervical discectomy is safe and effective in the management of lateral cervical disc herniation manifested by radiculopathy. In addition to eliminating some of the disadvantages of open surgical approaches, it may also have swifter symptoms resolution compared to laminoforaminotomy without discectomy.