

SURGICAL RESULTS OF SINGLE-LEVEL ANTERIOR DECOMPRESSION AND FUSION IN ELDER PATIENTS WITH CERVICAL SPONDYLOTIC MYELOPATHY BASED ON THE INTRAOPERATIVE ELECTRONEUROGRAPHY FOR THE ASSESSMENT OF LEVEL OF OPERATION

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In anterior decompression and fusion surgery for elder patients with cervical spondylotic myelopathy (CSM), we decompress only the site demonstrating the electrophysiological findings of conduction block in spinal cord evoked potentials (SCEPs) that is compatible with both neurological and MRI findings. In this study, we want to report surgical results of single-level anterior surgery for elder patients with CSM who were followed for a minimum period of two years. **PATIENTS:** Of 83 patients with CSM who had anterior surgery from 1990 to 2005, 73 patients had single-level anterior surgery and 10 patients had two-level anterior surgery. We have recorded SCEPs recorded from needle electrodes inserted through intervertebral disk after epidural stimulation with catheter electrodes inserted into dorsal epidural space at upper lumbar or lower thoracic level. **RESULTS:** Average age at the time of operation and follow-up period was 76.9 years and 4.2 years. Average number of dural indentation on MRI T2 image was 3.2 segments and 68 patients (93.2%) had multilevel dural indentations. JOA score increased significantly from 8.2 points before surgery to 13.0 points at final follow-up. The recovery rate of JOA score was 53.0% at final follow-up. **CONCLUSION:** Surgical result of single-level anterior surgery decompressing only the level of conduction block for 73 patients was satisfactory. We should decide the level of operation in patients with CSM based on the findings of nerve conduction study using SCEP in addition to both neurological and MRI findings.