



Cervical Decompression for Tandem Spinal Stenosis: The Impact on Low Back Pain at One-Year Follow-Up

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Introduction

Tandem spinal stenosis (TSS) can present similarly to cervical spondylotic myelopathy, but often has a worse prognosis. Few studies have investigated outcomes and compared treatment approaches for patients with TSS. In the present study, we sought to determine the impact of cervical spine surgery on cervical and lumbar spine symptoms in patients with symptomatic tandem spinal stenosis.

Methods

Eighty-four patients with clinical and imaging evidence of TSS were identified between 2008 and 2013. Of those identified, 48 underwent cervical spine surgery alone, 20 underwent both cervical and lumbar spine surgery, and 16 received conservative treatment alone (conservative cohort). Quality of life (QOL) measures included the Visual Analogue Scale (VAS) for arm, neck, and back, Pain Disability Questionnaire (PDQ), Patient Health Questionnaire-9 (PHQ-9), and EuroQOL-5 Dimensions (EQ-5D) and were acquired at baseline (pre-operative), and 1 year postoperatively.

Results

Both surgical cohorts showed significant ($p < 0.01$) pre- to postoperative improvement for VAS neck and arm scores at 1-year post-op and significantly greater improvements than the conservative cohort. In addition, the cohort undergoing cervical spine surgery alone experienced significant improvement in the EQ-5D score whereas those undergoing both cervical and lumbar spine surgery did not. Low back pain remained the same or worsened for both surgical cohorts at both the initial postoperative visit as well as through the final follow-up.

Conclusions

Cervical spine surgery with or without follow-up lumbar spine surgery significantly improves neck pain in patients with TSS. In contrast, cervical spine surgery in these patients does not improve low back pain. Rather, it may unmask lumbar symptoms leading to subsequent lumbar spine surgery. In our cohort of TSS patients, lumbar surgery also did not improve low back pain or quality of life. Future prospective studies are necessary to confirm these findings and examine the impact of lumbar decompression alone on cervical spine symptoms in patients with TSS.

References

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Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of tandem spinal stenosis and when it should be considered as a diagnosis, 2) Discuss, in small groups, what treatment is the most appropriate relative to outcome, and 3) Identify reasons why decompression of one area of the spine may help resolve or worsen symptoms in the other area of the spine.

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