

Similar Proportions Return to Work Following Fusion and Decompression Alone for Degenerative Grade 1 Lumbar Spondylolisthesis, Though the Trajectories Differ: An Analysis of the Quality Outcomes Database

Andrew Kai-Hong Chan MD; Erica Fay Bisson MD MPH FAANS; Mohamad Bydon MD; Steven D. Glassman MD; Kevin T. Foley MD FACS FAANS; Eric A. Potts MD; Christopher I. Shaffrey MD, FACS; Mark Edwin Shaffrey MD, FAANS, FACS; Domagoj Coric MD; Michael Y. Wang MD, FACS; John J. Knightly MD; Paul Park MD; Kai-Ming G. Fu MD, PhD; Jonathan

Introduction

Low back pain is a leading cause of work-related disability in the US and results in significant costs, including up to \$20 billion annually due to lost productivity of the gainfully employed. Thus, return to work (RTW) is an important metric in the comparison of fusion versus decompression alone for grade 1 degenerative lumbar spondylolisthesis (DLS).

Methods

This was a retrospective analysis of a prospective registry. 599 patients underwent surgery for grade 1 DLS at twelve high-enrolling sites. Baseline variables were collected. Employment was defined as being employed and actively working or employed and on leave at time of surgery. RTW was assessed at 3 and 12 months following surgery.

Results

At baseline, 264 patients (44.1%) were employed. At baseline, there were a higher proportion of patients in the fusion cohort (219/462; 47.4%) that were employed compared with the decompression alone cohort (45/137; 32.8%; $p=0.003$). At 3 and 12 months, for patients eligible for RTW, 62.6% and 74.3%, respectively, were able to do so. In a subgroup analysis of the decompression alone cohort, 64.1% demonstrated RTW at 3 months with a rate that was similar at 12 months (65.0%) ($p=0.94$). In the fusion cohort, 62.3% demonstrated RTW at 3 months with rates that continued to increase at 12 months (75.8%) ($p=0.01$). There were no significant differences in RTW between the decompression alone and fusion cohorts at 3 and 12 months ($p=0.83$ and $p=0.30$, respectively).

Conclusions

At 12 months, the overall return to work rate was equivalent between the decompression and fusion cohorts. The decompression alone cohort reached peak RTW at 3 months, which remained stable at 12 months. Though the fusion cohort showed similar RTW at 3 months, the proportion continued to rise at 12 months. Further study is required to determine RTW rates in longer follow up.

Learning Objectives

By the conclusion of this session, participants should be able to 1) Understand that decompression alone and fusion for degenerative grade 1 lumbar spondylolisthesis is associated with similar rates of return to work 12 months following surgery 2) Identify that return to work trajectories differ by procedure, with those receiving fusion demonstrating higher rates of return to work at 12 months compared to 3 months. On the other hand, the decompression alone cohort demonstrated return to work rates that plateaued between 3 and 12 months.

References

Anderson JT, Haas AR, Percy R, Woods ST, Ahn UM, Ahn NU: Return to work after diskogenic fusion in workers' compensation subjects. *Orthopedics* 38:e1065-e1072, 2015

[Default Poster]