



Clinical outcomes in older patients after posterolateral lumbar fusion

Spine J. 2007 Sep-Oct;7(5):547-51. Epub 2007 Jan 9

Glassman SD, Carreon LY, Dimar JR, Campbell MJ, Puno RM, Johnson JR.  
Department of Orthopaedic Surgery, University of Louisville School of Medicine and the  
Leatherman Spine Center, 210 East Gray Street, Suite 900, Louisville, KY 40202, USA.  
tallgeyer@spinemds.com

**BACKGROUND CONTEXT:** Older patients are often advised that their age is a contraindication to lumbar fusion surgery. There is, however, limited available data to support or contradict this assertion. Although prior studies of surgical treatment for lumbar degenerative disease suggest that older patients obtain symptomatic pain relief, an evaluation of fusion outcomes based on modern Health-Related Quality of Life (HRQOL) measures is lacking. **PURPOSE:** The purpose of this study was to document clinical outcomes based on standardized HRQOL measures in patients over 65 years of age treated by lumbar decompression and fusion surgery. **DESIGN/SETTING:** This study was a retrospective review of prospectively collected patient reported outcomes data. **PATIENT SAMPLE:** Ninety-seven consecutive patients over 65 years of age treated by lumbar decompression and fusion between 2000 and 2004 were enrolled in a prospective health status outcomes protocol. Eighty-five patients (88%) had complete data at a minimum 2-year follow-up. **OUTCOME MEASURES:** Medical Outcomes Study Short Form 36v.2 (SF-36), Oswestry Disability Index (ODI), numeric rating scales (NRS) back and leg pain scores. **METHODS:** Patients over 65 years of age treated by lumbar fusion were evaluated based on HRQOL measures at a minimum of 2 years postoperatively. Variables including history of prior surgery and occurrence of a perioperative complication were evaluated. A comparison group of patients 50 to 64 years of age was also analyzed. **RESULTS:** In patients over 65 years old, mean improvement of 6.21 points in SF-36 Physical Composite Score and 5.75 points in SF-36 Mental Composite Score was observed. There was a mean 16.38-point improvement in ODI, 3.08-point improvement in back pain NRS, and 2.65-point improvement in leg pain NRS. SF-36 subscale scores showed improvement for all parameters except general health, where there was a small but statistically significant decline. There was no difference in outcomes at 2 years postoperatively based on the occurrence of a perioperative complication. Patients undergoing a primary lumbar surgical procedure had consistently better outcomes than patients undergoing a revision procedure.

**CONCLUSIONS:** The results of this study support the efficacy of lumbar decompression and fusion in selected patients over 65 years of age. Occurrence of a perioperative complication did not adversely affect clinical outcome. Patients undergoing a revision procedure should be counseled with regard to the more limited benefits seen with revision surgery.

PMID: 17905316 [PubMed - indexed for MEDLINE]