



Is Age Associated With Increased Complications Rates in Adult Scoliosis Surgery? A Review of 5,591 Cases from the Scoliosis Research Society Database 2004-2007

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Introduction

Increasing life expectancy and advances in medical sciences have led to more aggressive treatments being offered to the elderly including adult scoliosis surgery. A few studies have identified advanced age as a risk factor to develop complications following long spinal fusion. However, these reports are often limited by relatively small number of study subjects. The purpose of this study was to evaluate advanced age as a risk factor for developing complications following adult scoliosis surgery.

Methods

The Scoliosis Research Society Morbidity and Mortality database was queried for all adult scoliosis surgeries from 2004-2007. Patient demographics, diagnoses, and complications were analyzes. Two-tailed t-test and chi-square test were performed.

Results

Of 5,591 patients, 746 (13.3%) had complications. Patients with complications were 4.0 years older (55.3 years vs. 51.3 years, $p<0.001$). Mortality rate was 0.27%. Patients who died were 14.8 years older than those who did not have complications (66.1 vs. 51.3 years, $p<0.001$).There was a trend toward increasing complication rates with advance age for both idiopathic and degenerative adult scoliosis subtypes. Patients > 50 years were 1.5 times more likely to experience complications ($p=0.001$).

Conclusions

Advanced age was associated with increased complication rates including mortality following adult scoliosis surgery. Other factors such as medical comorbidities may also influence surgical outcome and merit further investigation.

Learning Objectives

1)Identify age as a risk factor in adult scoliosis surgery

References

Scoliosis Research Society Morbidity and Mortality Database 2004-2007