

Alcohol-Use on Complication and Readmission Rates After Elective Spinal Fusion (2 Levels) for Adult Spine Deformity

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Introduction

Alcohol use has been shown to affect surgical outcomes. However, it is unknown what effect alcohol use has on postoperative complications or readmission rates in spinal fusion surgery. The aim of this study is to determine the impact of preoperative alcohol use on 30-day readmission rates or the complications profile after adult elective spinal fusion for deformity correction (=2 levels).

Methods

The medical records of 1010 adult patients undergoing elective spinal fusion (=2 levels) for spinal deformities at a major academic institution from 2005 to 2015 were reviewed. We identified 317 (31.4%) patients who used alcohol preoperatively and 693 (68.6%) patients who had no alcohol use preoperatively. Patient demographics, comorbidities, intra- and 30-day post-operative complication and readmission rates were collected for each patient. The primary outcome investigated in this study was the rate of 30-day readmissions and postoperative complication rates.

Results

Baseline characteristics were similar between both cohorts, Table 1. Intraoperative variables and the immediate postoperative complications profile were mostly similar between both cohorts, with the exception of estimated blood loss, number of transfusions, length of stay, and admissions to the intensive care unit, Tables 2 and 3. Overall, there was no significant difference between the 30-day readmission rates or complications profile between the two cohorts, Table 4.

Conclusions

Our study suggests there is no significant difference in 30-day readmission or complication rates among adult patients with or without preoperative alcohol use undergoing elective correction of spinal deformities.

Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the impact of alcohol use on surgical outcomes after spine surgery, 2) Discuss, in small groups, whether the physiological implications of alcohol use should be addressed prior to surgery, 3) Identify an effective treatment to reverse impact that alcohol use has preoperatively on surgical outcomes.

References