

Impact of Affective Disorders on 6-Week and 3-Month Narcotic Refills After Complex Spinal Fusion (≥ 5 Levels) for Adult Deformity Correction

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Introduction

There is a paucity of data identifying the impact affective disorders have on post-discharge narcotic refills. The aim of this study was to determine whether patients with affective disorders have greater narcotic refills after complex spinal fusion ($=5$ level) for deformity correction.

Methods

The medical records of 121 adult ($=18$ years-old) spine deformity patients undergoing elective, primary complex spinal fusion ($=5$ level) for deformity correction at a major academic institution from 2005 to 2015 were reviewed. We identified 43 (35.5%) patients with a clinical diagnosis of anxiety or depression (affective disorder) and 78 (64.5%) patients without an affective disorder. Patient demographics, comorbidities, intra- and post-operative complication rates, baseline and post-operative patient-reported pain scores, ambulatory status, and narcotic refills were collected for each patient. The primary outcome was the rate of 6-week and 3-month narcotic refills.

Results

Patient demographics and comorbidities were similar between both cohorts, including age, gender, and BMI. Pre-operative narcotic use was significantly higher in patients with an affective disorder (AD: 65.9% vs. No-AD: 37.7%, $p=0.0035$). The median number of fusion levels operated, length of surgery, estimated blood loss, and proportion of patients requiring blood transfusions were similar between both cohorts. There were no significant differences in the postoperative complication profiles between the cohorts. Patients with an affective disorder had significantly higher pain scores at baseline (AD: 6.5 ± 2.9 vs. No-AD: 4.7 ± 3.1 , $p=0.004$) and the at the first post-operative pain score reported (AD: 6.7 ± 2.6 vs. No-AD: 5.6 ± 2.9 , $p=0.049$). However, there were no significant differences in narcotic refills at 6-weeks (AD: 34.9% vs. No-AD: 25.6%, $p=0.283$) and 3-months (AD: 23.8% vs. No-AD: 17.4%, $p=0.411$) after discharge between the cohorts.

Conclusions

Our study suggests that while spinal deformity patients with affective disorders may have higher baseline perception of pain and narcotic use, the impact of affective disorders have on narcotic refills at 6-weeks and 3-months may be minimal after complex spinal fusions ($=5$ -levels).

Learning Objectives

By the conclusion of this session, participants should be able to: 1) Describe the importance of affective disorders on perception of health status, 2) Discuss, in small groups, psychological drivers to narcotic refills after surgery, 3) Identify an effective intervention to reduce over-use of narcotics after surgery.