Blame the Opioids not the Spine Surgeon: Dislocation Risk is Associated with Preoperative Opiate Use in Lumbar Spine Fusion Patients after Total Hip Arthroplasty.

Ryland Phillip Kagan[1], Sebastian Welling[2], Mark Mildren, Travis Philipp, Spencer James Smith[1], Jung U Yoo[1]
[1]Oregon Health & Science University, [2]OHSU

INTRODUCTION:
Risk of dislocation after total hip arthroplasty (THA) related to prior lumbar spine fusion (LSF) is potentially related to decreased spine mobility. However, these patients also have elevated rates of opioid use. We evaluated the risk of dislocation after THA in patients with prior LSF comparing those with opioid use at THA to those without.
METHODS:
A retrospective review was performed (Medicare Standard Analytical Files from a large national insurance database) by querying International Classification of Disease, tenth revision procedure codes for LSF and THA. We identified postoperative hip dislocation and patients were stratified to opioid use at THA or not. Demographic data including age, sex, and obesity was collected. Multivariate analysis evaluated the association of opioid use and dislocation after adjusting for demographics.
RESULTS:
We identified 312,947 patients with THA from 2015-2020. A total 16,864 with LSF and THA, 9,341 with opioid use within 90 days before THA, and 7,523 without. There was no difference in demographics between the opioid use at THA group and those without. In patients with prior LSF there was increased risk for dislocation for opioid use at THA (OR = 1.82, 95% CI 1.75, 1.89, $p<0.00001$) compared to those without. There was no difference in risk of dislocation in LSF patients without opioid at THA compared to THA patients without prior LSF, (OR = 1.10, 95% CI 0.85-1.41, p 0.456).
DISCUSSION AND CONCLUSION:
There is an increased risk of dislocation LSF patients with opiate use at time of THA. However, in LSF patients without opioid use at time of THA they have similar risks for dislocation to patients without LSF. This suggests that the increased risk of dislocation in LSF patients is not fully explained by decreased spine mobility and is related to pain or altered sensorium related to opioid use.