

Session/Poster#

Presenter

C19

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Smoking Increases Rates of Readmission, Reoperation, and Comorbidity Status in Patients Undergoing Syndesmotic Fixation

Introduction: In America, the impact of smoking can be seen in postprocedural recovery of orthopedic procedures. The purpose of this study is to identify syndesmotic fixations and postoperative risk factors in smokers.

Methods: The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database in conjunction with CPT codes were queried for syndesmotic fixations between 2008 and 2016. Patients were categorized as smokers or non-smokers with information on 30-day postoperative outcomes, demographics, and comorbidities. 1:1 propensity score matching, univariate analysis, and multivariate logistic regression models were used to control for gender, age, and probability of morbidity while analyzing postoperative risk factors.

Results: 3358 patients were assessed. 2471 were non-smokers, while 887 smoked regularly. 778 patients were isolated through 1:1 propensity score match to account for covariates. Compared to non-smokers, smokers had a significantly lower BMI (31.7 vs. 32.9; $p=0.004$), higher rates of chronic obstructive pulmonary disease (3.8% vs. 1.3%; $p=0.001$), and lower rates of diabetes (6.6% vs. 9.4%; $p=0.041$). Smokers have significantly higher rates of postoperative complications (4.2% vs. 2.4%; $p=0.048$), readmission (3.0% vs. 1.1%; $p=0.008$), and reoperation (3.2% vs. 0.9%; $p=0.001$). Multivariate logistic regression models demonstrate smokers had higher rates of adverse events (OR 1.7 [1.0 - 2.9]; $p=0.034$) and postoperative complications (OR 2.1 [1.1 - 3.9]; $p=0.020$). Smokers showcased higher rates of readmission (OR 2.9 [1.3 - 6.3]; $p=0.009$) and reoperation (OR 4.0 [1.6 - 9.6]; $p=0.002$).

Conclusion: Smoking is associated with higher rates of readmission, reoperation, and comorbidities in syndesmotic fixation patients. Further studies include possible side effects and comorbidities amongst smokers to increase the likelihood of positive outcomes while carrying out procedures including but not limited to syndesmotic fixations.