

Session/Poster#

Presenter

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Impact of Diabetes on Postoperative Outcomes of Syndesmotic Fixation: An ACS NSQIP Analysis 2008-2016

Introduction: The prevalence of diabetes mellitus has continuously been on the rise and has impacted patient care in many ways. Due to the comorbidities related to diabetes, a significant amount of risk can be introduced while carrying out orthopedic procedures, such as syndesmotic fixations. This study aims to evaluate the impact of diabetes on syndesmotic fixations postoperatively and highlight important risk factors.

Methods: The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) database between 2008-2016 was evaluated for patients with diabetes who underwent syndesmotic fixations. A 1:1 propensity score match was performed to control for age, gender, and estimated probability of mortality. Univariate analysis and multivariate logistic regression models were used to assess the implications of diabetes and risk factors on postoperative complications.

Results: A total of 556 propensity score-matched patients were identified (Diabetes: n=278; no-Diabetes: n=278). Patients with diabetes had higher probabilities of experiencing adverse events (p=0.011), postoperative complications (p=0.044), wound complications (p=0.012), and bleeding requiring transfusion (p=0.007). These patients had higher probabilities of developing postoperative complications (OR 2.0 [1.0 - 4.0]; p=0.047), particularly wound complications (OR 3.1 [1.2 - 8.0]; p=0.017) and bleeding requiring transfusion (OR 6.2 [1.4 - 28.1]; p=0.017). There were no significant differences in rates of renal or pulmonary complications.

Conclusion: Patients with diabetes experienced higher rates of postoperative complications, adverse events, and associated comorbidities than patients without diabetes undergoing syndesmotic fixations. Due to these complications, further investigation and increased caution are necessary while operating on patients with diabetes.