

A28

Vinay Bijoor

Advisor(s): David Mai

Irritable Bowel Syndrome and Postoperative Medical Complications in Primary Total Knee Arthroplasty Outcomes

Introduction: The relationship between irritable bowel syndrome (IBS) and total knee arthroplasty (TKA) postoperative outcomes has not been thoroughly examined in past studies. The purpose of this study is to investigate the impact of IBS on TKA postoperative outcomes.

Methods: Data on admission from 2010 to 2019 in the National Inpatient Sample database was retrospectively analyzed to isolate primary TKA patients. 1,359,957 adult TKA patients were grouped into two cohorts based on IBS status (non-IBS: n=1,336,888; IBS: n=23,069). Patient demographics, hospital-related variables, discharge disposition (routine vs institutional), and postoperative outcomes (procedure-related surgical complications, other medical complications, revision, reoperation, admission mortality) were compared between the two cohorts. Additionally, logistic regression analysis was performed with covariates (age, gender, race, smoking status, Charlson comorbidity index) to evaluate the association of IBS with length of stay, total hospital charges, and postoperative outcomes.

Results: IBS patients were found to have increased total hospital charges (mean \$58,599 vs. \$55,628; p-value <0.001), postoperative blood loss anemia rates, and urinary tract infection rates, but decreased rates of acute kidney injury (all, p <0.001). Rates of procedure-related complications, revision, reoperation, mortality, and length of stay, were not found to be associated with IBS status (all, p <0.05; Table 1).

Discussion and Conclusion: This study found that IBS is a significant predictor of increased rates of some postoperative medical complications in adult primary TKA patients. These findings might enable orthopedic surgeons to better discuss the pros and cons of TKA surgery by considering their patients' prior medical backgrounds.