

C14

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Systemic Sclerosis in Primary Total Knee Arthroplasty Patients is Associated With Increased Rates of Postoperative Outcomes

Past studies poorly document the relationship of Systemic Sclerosis (SS) and postoperative outcomes after primary total knee arthroplasty (TKA) surgery. The purpose of this study is to analyze the association of SS with TKA outcomes. Data from the national inpatient system database from 2010-2019 was retrospectively analyzed to isolate TKA patients. Patients above the age of 18 were included and those admitted for revision or had incomplete information were excluded. Total of 1,359,224 patients underwent TKA and 733 contained SS. Revision, reoperation, admission mortality, discharge disposition, length of stay, procedure related complications, and other medical complications were compared between the two groups. To evaluate the association of SS with postoperative outcomes after TKA surgery, data was adjusted for confounding variables via multivariable regression and odds ratios were calculated. Length of stay and total charge were kept as continuous variables and reported as mean and standard deviation in a univariate table. Chi-square or fisher tests were used for categorical variables and the Wilcoxon rank sum test was used for continuous variables. Statistical significance was set at the 0.05 level. SS patients were found to have a longer length of stay in the hospital (3.09 days vs. 2.74 days, $p < 0.001$) than non-SS patients. There was also an increase in the procedure related complications of sepsis, septicemia, and septic shock (all, $p < 0.05$). SS patients were associated with other medical complications such as blood loss anemia when compared to non-SS patients (27% vs. 19%, $p < 0.001$). SS patients had a higher odds of being discharged to a rehabilitation center than non-SS patients (OR=1.1817). Through this retrospective study SS has been found to be associated with increased rates of postoperative outcomes in patients undergoing TKA surgery. The results help orthopedic surgeons better understand the potential risks involved in a TKA surgery with SS patients.