The Impact of Pancreatitis on Postoperative Outcomes in Total Knee Arthroplasty with Minimum Two Year Surveillance

Introduction: Pancreatitis (PA) is a common condition affecting the Western population. However, the relationship between pancreatitis and postoperative surgical outcomes for total knee arthroplasty (TKA) is poorly characterized. This study aimed to identify the impact of pancreatitis on 2-year postoperative outcomes following total knee arthroplasty.

Methods: The New York Statewide Planning and Research Cooperative System database was queried to identify all patients who underwent TKA surgery with at least a 2-year follow-up between 2009-2013. Differences in postoperative outcomes were compared between patients with pancreatitis and patients without pancreatitis after controlling for variables such as age, sex, and obesity designation. Demographics and 2-year postoperative surgical and medical complication rates were compared between the two cohorts utilizing Chi-Square, T-test, and logistical regression analysis.

Results: 622 patients were identified (pancreatitis: n=311; non-pancreatitis: n=311). Pancreatitis and non-pancreatitis patients had comparable ages (64.2 vs. 64.0 years) and sex (64.3% vs. 64.3% female) distributions. Pancreatitis patients within two years post-operation had higher rates of medical complications, acute renal failure, and readmission, but an overall decrease in reoperation rate (all, p<0.05). These patients had a higher risk of medical complications (1.6 [1.1-2.3]; p=0.013), acute renal failure (2.3 [1.3-3.9]; p=0.002), and readmission (16.2 [8.0-32.9]; p<0.001), but a decreased risk in reoperation (0.6 [0.4-0.9]; p=0.017).

Conclusion: Patients with pancreatitis experienced higher rates of postoperative medical complications, acute renal failure, and readmissions than patients without pancreatitis undergoing TKA in New York State. These findings should be taken into consideration when operating on patients with pancreatitis.