Abstract

INTRODUCTION: The Covid-19 pandemic halted elective surgeries in hospitals around the world during the onset of the pandemic. Elective operations have now successfully resumed at most institutions, with many studies focused on complications of a Covid-19 infection in surgical patients. Few studies have assessed the incidence of Covid-19 infections in patients undergoing elective surgery. This study aims to evaluate the incidence of Covid-19 in the postoperative period of patients who underwent elective Total Joint Arthroplasty (TJA) in the first year of the pandemic.

METHODS: A retrospective review of the PearlDiver patient records database included patients 85 years old and younger undergoing primary elective total hip or knee arthroplasty from April 2020 to April 2021 with at least 90 days of follow up. TJA patients were compared with a matched control group of patients diagnosed with hip or knee osteoarthritis who did not undergo elective surgery during the same period. Multivariate logistic regressions were used to determine the independent effect of TJA on Covid-19 incidence at 7, 30, and 90 days postoperatively.

RESULTS: This study included 583,938 patients (TJA: 97,323; control: 486,615). The elective TJA group had 71, 390, and 1244 patients were diagnosed with Covid-19 at 7, 30, and 90 days, respectively. The control group showed 657, 2956, and 8201 Covid-19 diagnoses at the same intervals. No significant difference in incidence of Covid-19 was observed between the elective TJA group and the control group at 7 days (0.1% vs. 0.1%), 30 days (0.4% vs. 0.6%), or 90 days (1.2% vs. 1.7%).

DISCUSSION and CONCLUSION: The present study demonstrates no increased risk of contracting COVID-19 after elective TJA when compared with patients of similar demographics and comorbidities. This information supports the continuation of elective joint arthroplasty surgery in the current environment and is reassuring that postoperative patients do not appear to be at increased risk for contracting this viral illness.