

Background

Despite favorable clinical outcomes associated with total joint arthroplasty (TJA), a subset of patients have postoperative complications including arthrofibrosis, instability, infection, malalignment, and mechanical failure. These are indications for secondary operations such as manipulation under anesthesia, arthroscopic washouts, implant exchange, explantation, or revision arthroplasty. This study aims to characterize the incidence, timing, and underlying etiologies of secondary procedures following primary TJA performed at an urban safety-net hospital from 2022 to 2024. This analysis may inform our understanding of operative trends in this population of patients.

Methods

A retrospective chart review was conducted on patients who underwent primary total joint arthroplasty (TJA) at our institution between January 2022 and December 2024, with the goal of identifying those who required secondary surgical procedures due to postoperative complications. Inclusion criteria consisted of patients who (1) underwent at least one subsequent surgical intervention (2) subsequent surgery on the same anatomical site as the original arthroplasty (3) had adequate documentation of operative details and clinical follow-up. All secondary procedures were recorded. Data was collected in the electronic medical record system, including the type of primary TJA (hip or knee), the nature and timing of the secondary procedure, and the documented reasons for revision. It was also recorded if patients experienced multiple complications or if more than one follow-up surgery was required.

Results

Between 2022 and 2024, a total of 741 primary joint arthroplasties (208 hip and 533 knee) were performed at our institution. Of the total number of primaries, 2.4% of hip operations needed reoperations and 11.3% of knee operations needed reoperations. Of the 5 hip reoperations, 3 were due to dislocation (60%), 1 from deep infection (20%), and 1 from a superficial infection (20%). There were no reoperations due to thigh pain. Of the 60 knee reoperations, 6 were deep infection (10%), 4 were superficial infection (6.67%), 4 were instability (6.67%), and 46 were arthrofibrosis (76.67%).

Conclusion

Analysis of data from our institution suggests that arthrofibrosis was the most prevalent indicator for a secondary procedure, and knee manipulation was the most commonly performed reoperation. Infection and pain were the other two indications. These findings emphasize the prevalence of postoperative stiffness in this population. Continued investigation is recommended to understand risk factors and preemptively lower the burden of secondary operations.