

Ten-Fold Increased Risk of Manipulation under Anesthesia (MUA) following Total Knee Arthroplasty (TKA) when Previous Contralateral TKA Required MUA

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INTRODUCTION:

Stiffness remains a common complication after primary total knee arthroplasty (TKA). Manipulation under anesthesia (MUA) remains the gold standard for treatment of early postoperative stiffness. Both patient specific and surgical risk factors have been identified for stiffness, but there remains a paucity of data on patients undergoing primary TKA if they have had a prior contralateral TKA in which underwent an MUA. This study aims to evaluate whether prior MUA in primary TKA is predictive of contralateral MUA after TKA in patients undergoing staged bilateral TKA.

METHODS:

We performed a retrospective review of 3,102 patients who had staged primary TKAs at a single institution between 2016-2021. The mean BMI was 33 kg/m² and mean age was 67 years. There were 1,950 females (63%). Mean preoperative range of motion for the first TKA was 1.7° (range, -30° to 50°) to 104.4° (range, 5° to 145°) and for the contralateral TKA was 1.0° (range, -15° to 45°) to 106.7° (range, 20° to 180°). We compared frequency of MUA following first and second primary TKAs.

RESULTS:

The rate of MUA after the first primary TKA in this cohort was 2.6% (n=83/3,102) while the rate of MUA after the contralateral second primary TKA was 1.3% (n=40/3,102). Of the 83 patients who underwent a MUA after their first TKA, 11 (13.3%) underwent an MUA after their second TKA compared to 0.9% of patients (29/3,109) that did not undergo a first TKA MUA (p<0.0001).

DISCUSSION AND CONCLUSION:

In patients undergoing staged bilateral TKA, patients who undergo MUA following the first primary TKA are more than 10-fold more likely to undergo an MUA following contralateral primary TKA than those who did not have a first MUA. Patients and surgeons should be counseled accordingly and take all possible steps to mitigate postoperative stiffness in these patients.