

Study on Functional Outcome, Complication and Readmission Rate in Bilateral Simultaneous versus Staggered versus Staged Total Knee Replacement

Vishal Ashokraj Pusshkarna* and A V Gurava Reddy

*Department of Orthopedics, Gujarat Adani Institute of Medical Sciences, India.

Published April 07, 2022

ABSTRACT

Background: An important source of debate in orthopedic practices is the choice of performing simultaneously, staggered or staged bilateral total knee arthroplasty (BTKA). Many studies are available which compare Bilateral simultaneous Vs staged TKA in terms of functional outcome. But still there are no studies which include staggered BTKA (Done in a single hospital stay) and compared their functional outcome, associated complication with a 90-day readmission rate.

Methods: A retrospective review of 300 TKAs patients who underwent bilateral TKA. Patients were divided into three groups with 100 patients each in simultaneous, staggered, staged group. We use hospital electronic health records database to compare the complication and readmission rates in all three groups. Functional outcome was evaluated preoperatively using knee society score (KSS), Western Ontario and McMaster Universities Arthritis Index (WOMAC), Oxford Knee score (OKS) Kujala score and range of motion (ROM).

Results: The study consists of 234 females and 66 males, among which maximum females were in a simultaneous group while male were more in staggered group. Mean age group in our study was 62.25%. ASA score of 3 was significantly more in staged group. Patient in the staggered group had a better KSS and Kujala score with better range of motion and less readmission and complication rate. Simultaneous BTKA had slightly higher complication rate.

Conclusion: This study demonstrates that there is not big significant in functional outcome when comparing simultaneous, staged and staggered bilateral TKA, but still staggered group shows better postoperative functional outcome.

Keywords: Simultaneous, Staged, Staggered, BTKA, Total knee replacement, WOMAC, KSS, OKS

Corresponding author: Vishal Ashokraj Pushkarna, Department of Orthopaedics, Gujarat Adani Institute of Medical Sciences, India, E-mail: vishalpusshkarna@hotmail.com

Citation: Pushkarna VA & Reddy AVG. (2022) Study on Functional Outcome, Complication and Readmission Rate in Bilateral Simultaneous versus Staggered versus Staged Total Knee Replacement. Int J Surg Invasive Procedures, 5(S1): 10.

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