

The Mid-Term Results of High Tibial of Osteotomy Over the Age of 65 are Comparable to that of Under 55: A Propensity Score Matched Analysis

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INTRODUCTION: The results of medial open-wedge high tibial osteotomy (MOWHTO) according to age is inclusive. This study aimed to compare the clinical outcomes and failure of MOWHTO in patients <55 years and >65 years.

METHODS: Consecutive patients who underwent MOWHTO from July 2009 to August 2020 were retrospectively analyzed. In total, 205 patients were considered for analysis. We performed a 1-to-1 propensity score matched analysis to assess clinical outcomes scores (International Knee Documentation Committee subjective score and Lysholm score), complication, and TKA conversion between patients > 65years and patients < 55years. Patients were followed up for up to 50 months, postoperatively.

RESULTS:

There was no significant difference in the preoperative and postoperative Hip-Knee-Angle, preoperative and postoperative Weight Bearing Line ratio, preoperative and postoperative posterior tibial slope, and preoperative and postoperative Insall-Salvati ratio between the two groups. The arthroscopic evaluation of cartilage using the ICRS grading system did not show any statistically significant differences between the two age groups. There was no significant difference in the preoperative and postoperative IKDC score and Lysholm score. Regarding clinically relevant values of the MCID, in the older group 16 of 62 patients (26%) showed a IKDC score exceeding 12.5; 28 of 62 patients (45%) revealed a Lysholm score exceeding 8.9. In the younger group, 15 of 62 patients (24%) showed a IKDC score exceeding 12.5; 22 of 62 patients (35%) revealed a Lysholm score exceeding 8.9. There were no significant differences in the two groups in the percentage of patients that exceeded MCID for both IKDC and Lysholm scores. There were 7 cases of TKA conversion in patients > 65years whereas no TKA conversion in patients < 55 years. ($P=0.007$)

DISCUSSION AND CONCLUSION:

MOWHTO is an appropriate joint preservation procedure that is valid for medial compartment OA even in patients over age 65. Given that the baseline characteristics are similar, the mid-term results were comparable between younger and older age group. HTO may be a viable option in older patients if proper indications are met. However, the risk of TKA conversion must be considered preoperatively and discussed with patients.