



Preoperative Activity Level Does Not Effect Postoperative Outcomes with a Contemporary Revision Total Knee System

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Notes

Introduction: As the population requiring revision total knee arthroplasty (rTKA) continues to expand, varying preoperative conditions need to be considered when analyzing postoperative outcomes. Factoring in preoperative activity levels can help manage the expectations of patients. The purpose of this study was to analyze the outcomes of low and high activity patients receiving a contemporary rTKA.

Methods: One hundred and eighty rTKA patients enrolled in a prospective, multicenter study were evaluated through 2 years postoperative. Patients were divided into groups based on preoperative activity level using the Lower Extremity Activity Scale (LEAS). Patients scoring between 1-7 were classified as 'Low Activity' (LA, N=104) and patients scoring 8-18 were classified as 'High Activity' (HA, N=76). Clinical outcomes were evaluated, with an additional quality of life analysis completed utilizing SF-6D scores obtained through a method described by Brazier et al. and analyzed for effect size.

Results: There were no differences in age or BMI between groups, with 64% females in the LA group and 58% males in the HA group. Postoperative improvement in both groups were similar in the KSS, but the LA group showed larger increases in the KSS Functional assessment at 6 weeks (16.2) and 2 years (34.8). There was a statistically significant large effect (0.96, p=0.0006) seen in the LA group at 1 year, in conjunction with a higher SF-6D outcome.

Conclusions: The current study population displayed significant improvement in functional patient outcomes following rTKA regardless of preoperative activity level and function. Patients with lower preoperative activity levels demonstrated greater cumulative functional and quality of life improvements. This suggests that a lower preoperative activity level may be related to a poorly functioning knee and that rTKA has the potential to improve overall activity levels and function.