

Knee osseous

Is the outcome of knee arthroplasty different for rheumatoid arthritis compared to osteoarthritis?

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Abstract

INTRODUCTION

Comparative studies of knee arthroplasty outcome for different disease processes show variation in both revision rates and objective clinical outcome measures. However, the focus has recently shifted towards patient reported outcome measures (PROMs) as the preferred tool to define arthroplasty results. Currently there is very little information as to the variation in PROMs between different disease processes, and whether consistent results are reported when using different PROM tools.

OBJECTIVES

This study compares knee arthroplasty outcomes using PROMs, to identify variations between osteoarthritis (OA) and inflammatory arthritis (RA). It also examines how the use of different outcome variables influences the apparent outcome.

METHODS

We analysed prospectively collected outcome data (OKS, EQ5D, satisfaction score, and revision) on 2182 primary total knee arthroplasty patients. Patients were categorised according to their disease process; inflammatory arthritis (RA, n=88) or osteoarthritis (OA, n=2094). Oxford Knee Scores and EQ5D were analysed preoperatively, and postoperatively at 6 months and 2 years. Both absolute scores and post-operative change in scores were calculated and compared between groups. Satisfaction scores (0-100) were analysed at 6 months. Parametric data was analysed using ANOVA, and Mann-Whitney test for non-parametric data. Kaplan-Meier analysis was performed to describe revision rates at 2 years.

CONCLUSION

This study demonstrates that RA patients achieve an excellent early outcome following knee arthroplasty, with high levels of satisfaction, and postoperative PROMs comparable to those seen in the OA group, despite a significantly poorer preoperative status. Furthermore, the change in scores shows that the postoperative improvements are significantly superior to the OA group. This also highlights the complexities of measuring and interpreting arthroplasty outcomes, and the potential to reach misleading conclusions when using postoperative scores in isolation.