

Patellofemoral OA Severity is Not Correlated to PROMS in TKA with Selective Patella Resurfacing

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INTRODUCTION:

The severity of patellofemoral osteoarthritis (OA) acceptable when selectively leaving the patella unresurfaced in total knee arthroplasty (TKA) remains unknown. This study evaluated the effect of patellofemoral OA severity on patient-reported outcome measures (PROMs) in primary TKAs with unresurfaced patellae.

METHODS:

872 consecutive primary TKAs performed without patellar resurfacing were retrospectively reviewed. 667 (76%) had an aggressive lateral patellar facetectomy. Preoperative patellofemoral OA severity was graded on severity, marginal osteophytes, and joint space narrowing using accepted grading systems for both the medial and lateral patellar facets. Patellar tilt and displacement were measured radiographically. PROMs were evaluated at latest available follow-up (mean 15.2 months range, 1-85) and statistically analyzed with $P \leq 0.05$ as significant.

RESULTS:

The patient cohort was 63% female with a mean age and BMI of 65 years and 35 kg/m², respectively. Patients with preoperative OARSI osteophyte grades ≥ 2 on the medial patellar facet had greater improvement from baseline in KOOS-JR ($P=0.047$), reported their knees more frequently felt "sometimes or always" normal (89 versus 80%, $P<0.001$), and had greater satisfaction (82 versus 76%, $P=0.093$) with numbers available compared to grades ≤ 1 . Patients with a lateral patellar facetectomy had significantly less (i.e., more neutral) postoperative patellar tilt compared to those without ($P=0.004$).

DISCUSSION AND CONCLUSION:

Contrary to modern anecdotal contention, patients with more severe preoperative radiographic patellofemoral arthritis, particularly in the medial facet, demonstrated superior knee-specific PROMs in patients with selectively unresurfaced patellae after modern primary TKA. In addition, the use of an aggressive lateral patellar facetectomy may optimize postoperative patellar tracking, which may reduce patella-related complications. Results support the clinical finding that patients with more severe preoperative OA have optimized outcomes, irrespective of patella resurfacing.