

Resurface It Or Respect It? Reassessing Patellar Resurfacing In Two-Stage Revision For PJI

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INTRODUCTION:

The decision to resurface the patella during a two-stage exchange procedure for total knee arthroplasty (TKA) periprosthetic joint infection (PJI) remains controversial. While some studies support resurfacing to improve joint function and reduce complications, others report favorable outcomes and lower fracture risk without resurfacing. This study compares the outcomes of patellar resurfacing versus non-resurfacing in the context of two-stage exchange for PJI, focusing on infection control, function, pain levels, and complications.

METHODS:

All patients who underwent two-stage exchange for PJI following TKA between January 2017 and December 2022 at a single academic institution, were retrospectively reviewed. Inclusion criteria required a minimum of one year of clinical and radiographic follow-up. Patients who underwent patellar resurfacing were compared to those who did not with respect to patient-reported outcome measures (PROMs), Visual Analog Scale (VAS) for pain, as well as range of motion (ROM). Additionally, radiographic patellar displacement and/or dislocation was assessed by a blinded observer, and the prevalence of these findings was compared between groups. Finally, survival was compared across cohorts.

RESULTS:

106 patients met inclusion criteria. At 1-year postoperatively, there were no statistically significant differences between groups in KOOS (P = 0.80), VAS pain scores (P = 0.18), or range of motion (P = 0.73). The non-resurfaced group demonstrated a significantly higher prevalence of patellar subluxation/dislocation (49% vs. 27%, P = 0.034). Furthermore, overall complication rates were higher in the non-resurfaced group (53%) compared to the resurfaced group (29.5%, P = 0.015). However, when reinfections were excluded, complication rates were no longer different between groups. Furthermore, the rate of extensor mechanism complications (P = 0.33) and reinfections (P = 0.13) were similar among groups. Survival was comparable between groups (P = 0.10)

DISCUSSION AND CONCLUSION:

At 1-year postoperatively, patients who underwent patellar resurfacing at the time of reimplantation had significantly lower rates of patellar subluxation or dislocation compared to non-resurfaced patients in two-stage TKA for PJI. Yet despite these radiographic outcomes, no difference in ROM, PROMs, or VAS pain, nor the prevalence in extensor mechanism-related complications were observed. In conclusion, our findings suggest that resurfacing the patella during a reimplantation procedure is desirable to optimize patellar tracking. However, when confronted with high risk scenarios (poor bone stock, limited range of motion), surgeons should feel assured that 'respecting' or leaving the patella alone will not lead to poorer functional outcomes, pain scores, ROM, or survival.

