

Survival of Cementless and Cemented Porous-coated Anatomic Knee Replacements: Retrospective Cohort Study

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Aim. To evaluate the effect of cement use in porous-coated anatomic (PCA) total knee prosthesis on its survival.

Methods. The study was a retrospective analysis of 142 PCA total condylar arthroplasties performed in 124 patients from 1985 to 1991. Uncemented prosthesis was used in 87 knees, the prosthesis was cemented in 44 knees, and hybrid prosthesis components were used in 11 knees. The average follow-up time was 88 months (range 66-140). The survival of the prosthesis was assessed using the Kaplan-Meier's method. The Baltimore score was evaluated as a measure of clinical performance in 115 replacements.

Results. The overall cumulative survival rate of the PCA total knee prosthesis was 77% at an average follow-up time of 88 months. No significant differences in survival rates could be demonstrated among cementless, cemented, or hybrid fixations. The survival rate of the prosthesis in patients with rheumatoid arthritis (82.5%) was significantly higher than in patients with osteoarthritis (73.8%). Revision was necessary in 29 (20.4%) replacements.

Conclusion. The survival of PCA endoprosthesis, regardless of the components used for implantation, is not satisfactory.

Key words: *arthritis, rheumatoid; arthroplasty, replacement, knee; knee prosthesis; knee replacement, total; osteoarthritis; prosthesis implantation*