

Long-Term Outcomes were Similar between Hybrid and Cemented Total Knee Arthroplasties Performed on Paired Knees at a Minimum 15 Years of Follow Up

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INTRODUCTION:

This study is to compare long-term clinical and radiographic results and survival rates between hybrid and cemented total knee arthroplasties (TKAs) performed on paired knees.

METHODS:

Seventy-two patients with hybrid and cemented TKAs performed on paired knees with cruciate-retaining prostheses were retrospectively reviewed after a minimum 15 years of follow up. Mean follow-up period was 17.5 years. Preoperative alignment deformity and range of motion (ROM) were not different between groups. The Knee Society score, Western Ontario and McMaster Universities Osteoarthritis Index, and ROM were evaluated. Radiographically, change in joint space width, component loosening, and osteolysis were evaluated. Implant survival rate was analyzed.

RESULTS:

There were no significant differences in clinical results between hybrid and cemented TKAs performed on paired knees of 72 patients at last follow up. No significant difference was observed in change in joint space width between two groups at last follow up (medial=0.3 mm vs. 0.4 mm; lateral=0.1 mm vs. 0.2 mm). One hybrid TKA showed tibial component loosening, for which revision was performed. There was femoral osteolysis in one hybrid and one cemented TKA, and tibial osteolysis in eight hybrid TKAs and seven cemented TKAs (n.s., respectively). The 20-year survival rate was 97.7% for hybrid TKAs and 100% for cemented TKAs (n.s.).

DISCUSSION AND CONCLUSION:

The long-term outcomes were similar between hybrid and cemented TKAs performed on paired knees at a minimum 15 years of follow up. The method of femoral component fixation did not have a significant effect on long-term TKA success.