

Total Hip Replacement In Patients Under 30 Years Of Age: Results And Complications

Orthopaedics / Pelvis, Hip & Femur / Joint Replacement - Primary

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Background

Total hip replacement (THR) is not a commonly offered procedure in young patients. This could be related to concerns about implant survival and lack of data regarding functional outcomes in this age group.

Objectives

To analyse the clinical outcomes of THR in patients under 30 years of age in a third-level hip unit.

Study Design & Methods

A retrospective study was conducted on a cohort of patients younger than 30 years that received a THR between 2010 and 2024. Thirty-five patients were included (40 THR in total). A minimal follow-up period of 6 months was required. Medical records were reviewed for demographics, underlying diagnosis, operation details, implant revision, and other complications.

Results

Mean age was 21.55 (13-29) and 45% of patients were female. The most frequent underlying diagnosis was Perthes' disease (27.5%), followed by avascular necrosis (20%). Forty-two percent of patients had undergone at least one previous hip surgery. Mean follow-up time was 49.6 months (0-163). Four patients (10%) required an implant revision. Underlying rheumatic conditions were associated with a higher implant failure rate (28.57%). No differences on implant failure rate were found regarding age, gender, prior hip surgery, approach and implant selection. Revisions were due to infection (1 case), dislocation (1 case), ceramic insert failure (1 case), and aseptic loosening (1 case). The implant survival rate was 92.5% at 5 years and 90% at 10 years. Five (12.5%) patients suffered other complications, including 2 nerve palsies, 2 intraoperative prosthesis fractures, and one infection.

Conclusions

Despite the risks of early implant revision and complications, THR in patients under 30 years of age is associated with good implant survival rates.