

Hip

Oral 3497

The prognosis of total hip arthroplasty (THA) in patients younger than 50 years of age. Results of 14,610 primary THA

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Abstract

INTRODUCTION: Revision rate after THA in the younger age groups is still unacceptably high and might reach up to 20% after 10 years. The aim of this investigation is to evaluate risk factors for later revision in patients younger than 50 years at surgery based on the NARA database (Nordic Arthroplasty Register Association). **MATERIALS AND METHODS:** 14,610 primary THA from Denmark, Sweden, and Norway, operated from 1995 to 2007, were included. 49.4% were males, the diagnosis was idiopathic osteoarthritis (OA) in 46%, childhood disease in 26%, inflammatory arthritis (IA) in 12%, non-traumatic osteonecrosis in 9% and fracture in 6%. 49% of the THA's were uncemented, 27% cemented, 14% hybrid, and 8% were reverse hybrid THA's. Cox multiple regression, adjusted for diagnosis, age, gender, calendar year and surgical approach, was used to calculate prosthesis survival with any revision as end-point. RR= relative risk (CI= confidence interval). **RESULTS:** The overall 10-year survival was 83%. There was no difference between gender (RR=0.94 (0.82-1.07)). IA had a 37% reduced risk of revision compared with OA (RR=0.67 (0.54-0.84)), whereas there was no difference between childhood disease and primary osteoarthritis. Overall, cemented, uncemented and reverse hybrid THA had a better survival than hybrid THA. Hybrid THA had 24% increased risk compared with cemented (RR=1.24 (1.04-1.49)). There were no differences between cementless and cemented (RR=1.07 (0.92-1.26)). Interestingly, the reverse THA had a lower revision rate than cemented THA in men (RR=0.50 (0.25-0.99)). The risk for revision due to aseptic loosening was lowest in cementless THA and reduced to RR=0.55 (0.44-0.69) compared with cemented THA. **DISCUSSION AND CONCLUSION:** Choice of prosthetic concept for younger patients is still of debate. The present study including only patients younger than 50 years of age, showed that overall cemented, uncemented and reverse hybrid THA, had better survival than traditional hybrid. The risk for revision due to aseptic loosening was higher in cemented than cementless THA.

