Paper #38

Is There a Problem with Modular Dual Mobility Components in Revision THA at Mid-term Follow-up?

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Introduction: Modular dual mobility (MDM) acetabular components are often used to prevent dislocation in revision total hip arthroplasty (THA). As there is insufficient data on these components, the outcomes were evaluated in a cohort with a mean follow-up time greater than five years.

Methods: Using the database of a single academic center, 126 revision THAs (117 patients) with one MDM were retrospectively reviewed. There were 94 hips in 88 patients with a mean follow-up time of 5.5 years. Survivorship analysis was performed with the endpoints of dislocation, reoperation for dislocation, cup revision for aseptic loosening, and cup revision for any reason. The secondary endpoints were perioperative complications and radiographic review.

Results: The overall rate of dislocation was 11%, with a 6-year survival of 91%. Reoperation for dislocation was performed in 7 patients (7%), with a 6-year survival of 94%. The dislocations were early (mean 33 days) in 6 patients, and late (mean 4.3 years) in 4 patients. There were 3 intraprosthetic dissociations. An outer head diameter of 48 mm or greater was associated with a lower risk of dislocation (p=0.013). Four hips (4%) were revised for aseptic cup loosening, and 14 (15%) cups were revised for infection. Two hips had visible metallic changes of the backside of the cobalt chromium liner.

Conclusions: Using this MDM component in revision THA, at mean follow-up time of 5.5 years, there was a higher rate of dislocation (11%) than previously reported. Outer bearing size was related to the risk of dislocation. There was a low rate of aseptic cup loosening. Longer follow-up of this MDM component and evaluation of other designs is warranted.

Notes