



Paper #25

The Cumulative Risk of Re-dislocation After Revision THA Performed for Instability Increases to Close to 35% at 15 Years

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Introduction: The purpose of this study is to 1) report the cumulative risk of re-dislocation and subsequent revision in a large series of revision THA performed for instability and 2.) to identify the patient and surgical related variables that are associated with redislocation and re-revision THA.

Methods: A retrospective analysis was conducted on 539 hips (528 patients) undergoing revision THA done for instability between 1995 and 2005. Patient demographics, etiology for instability, and surgical strategies aimed at treating the instability were identified from medical records. The cumulative risk of re-dislocation and revision was calculated using Kaplan-Meier method and risk factors were identified using Cox proportional-hazard regression.

Results: The cumulative risk of dislocation at 1, 5, 10, and 15 years was 6.8%, 15.4%, 23.7, and 34.5% respectively and the cumulative risk of re-revision at 1, 5, 10, and 15 years was 5.1%, 17.9%, 33.2%, and 45.9% respectively. In the multiple variable analyses, history of 2 or more revisions was a risk factor for re-dislocation (HR 1.936) and revision (HR 1.801); while the use of head size 36 or greater (HR 0.388, 0.376) and acetabular component revision (HR 0.454, 0.675) were identified as protective factors against subsequent dislocation and revision. The use of a constrained liner was protective against re-dislocation (HR 0.299) but was associated with subsequent revision.

Conclusion: The cumulative risk of dislocation after a revision of an unstable THA is close to 7% during the first year and rises constantly during the life of the arthroplasty to an incredibly high rate of almost 35% at 15 years. Use of a head size 36 or larger, cup revision and constrained liners were protective strategies against re-dislocation, however use of a constrained liner was associated with need for revision when dislocation occurred.
