

What are the Rates of Recurrent Dislocation and Re-Revision after Revision THA for Instability?

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INTRODUCTION:

Instability after total hip arthroplasty (THA) can require surgical treatment with revision THA (rTHA). This study used a modern cohort of patients undergoing rTHA for instability to 1) determine rates of recurrent dislocation and re-revision after rTHA and 2) determine if patient-specific or surgical techniques associated with recurrent dislocation or re-revision.

METHODS:

Patients who 1) underwent primary THA at our institution from 2016-2024 and 2) underwent rTHA for a primary indication of instability were included. There were a total of 242 patients, including 227 patients (93.8%) who underwent posterolateral (PL) approach primary THA and 15 patients (6.2%) who underwent direct anterior (DA) primary THA. Patient-specific variables, perioperative data, recurrent dislocation events, and re-revisions were collected prospectively. Chart review was performed to collect any incomplete data. Patient groups were compared using Chi-square or independent t-test as appropriate.

RESULTS:

There were 36 patients (14.9%) who had at least one dislocation after rTHA. There were 27 patients (11.2%) who required repeat revision surgery after a mean of 1.3 dislocations at a median of 126 days from index rTHA. Surgical technique at time of index rTHA included 106 head-liner exchanges (43.8%), 83 both component revisions (34.3%), 51 acetabular component revisions (21.1%), and 2 femoral component revisions (0.8%). Patients who had head-liner exchange only had similar rates of dislocation (17.1% vs 13.1%; $P=0.4$) and re-revision (14.3% vs 8.8%; $P=0.2$) as patients who had one or components revised at time of revision. Patients who had rTHA performed using computer navigation or robotic had similar rates of dislocation (10.5% vs 15.2%; $P=0.4$) and re-revision (11.4% vs 7.9%; $P=0.5$) as patients who underwent rTHA using manual technique.

DISCUSSION AND CONCLUSION:

In this modern cohort of patients undergoing rTHA for instability, there was a 11.2% rate of re-revision and 14.9% rate of recurrent dislocation. Use of technology and surgical technique at the time of rTHA did not associate with recurrent dislocation. Further study is needed to understand which patients are most at risk for recurrent instability and re-revision after rTHA for instability.