

Anterior Approach Is Associated With Lower Dislocation Risk for Isolated Head-Liner Exchange

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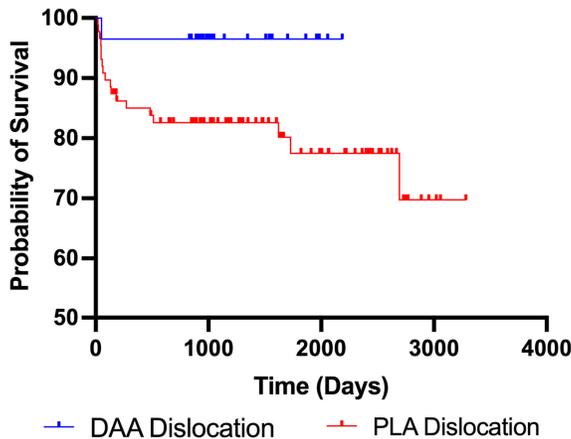
INTRODUCTION: Isolated head-liner exchange (HLE) can be utilized as a less invasive option for specific indications in revision total hip arthroplasty (THA). Historically, the most common complication following HLE is dislocation. The objective of this study was to determine if the direct anterior approach (DAA) with medial capsule preservation results in a lower incidence of dislocation when compared to the posterolateral approach (PLA) for HLE.

METHODS: A retrospective review identified 117 patients undergoing isolated HLE revision THA (88 PLA and 29 DAA) for polyethylene wear between 2016-2023. Cases that had a previous periprosthetic joint infection (PJI) or previous instability were excluded. Kaplan Meier curve demonstrated the probability of survival in reoperation and dislocation by Anterior versus Posterior group over time. Differences in survival probability between groups were assessed using the log-rank test.

RESULTS: Femoral head size was increased in 53% of PLA and 35% of DAA. Elevated liners were placed in 36% of PLA HLE versus 7% of DAA, and dual mobility construct (DMC) or a constrained liner in 10% and 6% of PLA, respectively, but in none of the DAA cohort. Dislocation occurred following HLE in 18/88 PLA hips versus 1/29 DAA hips ($p=0.049$). The 1 dislocation in the DAA cohort had no subsequent instability events, while 8 of the PLA cohort dislocated more than once (range, 2-4). There were 11 reoperations, all in the PLA cohort (12.5% vs 0%, $p=0.061$). Indications for reoperations included recurrent instability ($n=7$), PJI ($n=2$), periprosthetic femur fracture ($n=1$), and wound dehiscence ($n=1$).

DISCUSSION AND CONCLUSION: Use of the DAA with medial capsule preservation for isolated HLE was associated with a lower rate of dislocation, despite less frequent use of DMC, larger heads and elevated liners in the DAA cohort. Surgeons may consider DAA for isolated HLE to reduce the risk of postoperative instability.

Survival: Days to Dislocation



Survival: Days to Reoperation

