No Difference in 90-day Complications Between Surgical Approaches for Isolated Femoral and Both-Component Revision Total Hip Arthroplasty

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INTRODUCTION: The direct anterior approach (DAA) is increasingly utilized for revision hip surgery, but there is limited evidence regarding patient outcomes for revisions that involve the femoral component. The aim of this study was to compare outcomes for patients undergoing isolated femoral revision or both component revision through the DAA to posterolateral (PLA) and direct lateral (DLA) surgical approaches.

METHODS: All patients undergoing either an isolated femoral component revision or both-component revision THA from January 2017 to December 2023 by fellowship-trained surgeons at a single-institution were included. Patient demographics, revision indication, surgical approach, perioperative complications, and 90-day postoperative outcomes were retrospectively reviewed from our prospectively maintained revision arthroplasty database. Patients were stratified by type of revision (femoral or both-component) to compare complications and 90-day outcomes between surgical approach.

RESULTS: 421 patients underwent an isolated femoral component revision while 611 patients underwent a both-component revision. In the femoral component cohort, 109 patients were revised via DAA, 187 patients via DLA, and 125 patients via PLA. There were no significant differences when comparing between femoral component revisions done via DAA, DLA, and PLA for inpatient complications (11.9% vs. 10.7% vs. 9.60%, p=0.848), 90-day postop complications (23.9% vs. 19.8% vs. 25.6%, p=0.452), and readmission rates (21.1% vs. 16.0% vs. 24.8%, p=0.156). In the both-component cohort, 128 patients were revised via DAA, 196 patients via DLA, and 287 patients via PA. There were no significant differences between both-component revisions using DAA, DLA, and PLA for inpatient complications (10.9% vs. 15.3% vs. 15.3%, p=0.455), 90-day postop complications (24.2% vs. 24.0% vs. 25.1%, p=0.958), and readmission rates (19.5% vs. 18.9% vs. 21.3%, p=0.800)

DISCUSSION AND CONCLUSION:

Isolated stem revision and both component hip revision surgery can safely be performed utilizing the surgeon's preferred surgical approach. Larger, prospective studies should be undertaken to compare functional and long-term patient outcomes.