

# Primary Total Hip Arthroplasty Outcomes for Labral Tears are Noninferior compared to Advanced Osteoarthritis

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## INTRODUCTION:

There is a paucity of evidence in literature with regard to outcomes following total hip arthroplasty (THA) in patients older than 50 years old with only moderate osteoarthritic (OA) changes and symptomatic degenerative labral tears. We hypothesize that such patients would exhibit similarly favorable outcomes following primary THA, compared to patients who receive THA for advanced osteoarthritis.

## METHODS:

We performed a retrospective investigation of all THAs between January 2018 and July 2022. Patients were included in the study cohort if they had THA due to failure of nonsurgical treatment of a degenerative labral tear without advanced arthritic changes (Kellgren-Lawrence (KL) Grades 1-3). One-hundred-eleven patients met the inclusion criteria, and these patients were matched to an equal cohort of patients who underwent THA for advanced OA (KL Grade 4). Demographic variables of age, gender, race, and BMI and patient-reported outcomes (PROs) alongside complication rates and length of stay (LOS) were collected. Student's t-test and Chi-square analysis were used to compare the continuous and categorical variables between the two cohorts. A multivariate logistic regression model was used to assess correlations with PROs.

**RESULTS:** The average age for the labral tear cohort was 59.7 years, with 50.58% female, compared to 70.2 years ( $p < 0.001$ ), and 49.44% female ( $p = 0.93$ ) in the OA cohort. There were no statistically significant differences in race, BMI, or preoperative PROs between the cohorts. There were no differences in complications or LOS between groups. There were statistically significant differences across most PROs between the cohorts. The labral tear cohort had less improvement in WOMAC-S (24.32 vs. 34.01,  $p = 0.005$ ) and WOMAC-F (26.32 vs. 36.01,  $p = 0.005$ ) at 12 months and greater improvement in WOMAC-P at 12 months (38.33 vs. 34.68,  $p = 0.04$ ). In the multivariate analysis, the change in WOMAC-P at 12 months was significantly better for labral tear patients (OR 7.47,  $p = 0.008$ , CI [6.85-8.14]).

## DISCUSSION AND CONCLUSION:

Overall, our study showed that patients with symptomatic degenerative labral tears have comparable outcomes to those patients with advanced OA following primary THA. Given suboptimal outcomes with hip arthroscopy for labral tear in the setting of early arthritis, primary THA can be a reasonable treatment modality for patients failing nonsurgical treatments.

