

Labral Refixation versus Debridement for Symptomatic Femoroacetabular Impingement: A Matched Analysis at Mean 10-Year Outcomes in a Prospective, Multicenter Cohort

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INTRODUCTION:

Labral injury at the time of open and arthroscopic hip preservation surgery for symptomatic femoroacetabular impingement (FAI) is managed with debridement versus refixation by the treating surgeon based on tear pattern, tissue quality, and hip morphology. While refixation has been favored based on mid-term outcomes in some series, differences in the long-term patient-reported outcomes (PROMS) have not been defined in well-designed and matched prospective series.

METHODS:

This study consisted of a prospective, multicenter cohort of hips that underwent surgical treatment for symptomatic FAI. Patients were included in the study if they underwent primary hip surgery including corrective osteoplasty and a labral refixation or a labral debridement procedure. Patients with less than 8-year outcomes, age >40, or Tonnis grade >2 changes were excluded. Using a ratio of 1:1, hips with labral refixation and labral debridement were matched by age (within 5 years), sex, and surgical approach. Patient demographics, radiographic parameters, intraoperative disease severity, patient-reported outcome measures (PROMs) including the modified Harris hip score (mHHS), were collected preoperatively. Postoperative assessments were conducted at a minimum 8 years after surgery using PROMS and assessment of reoperations. Paired t-tests and McNemar's tests were used to compare PROMs, MCIDs, and composite outcomes across labral repair and labral debridement groups in the matched cohort.

RESULTS:

Of 481 hips enrolled in the prospective multicenter cohort, 237 hips (n=188 labral refixation, n=49 labral debridement) met the inclusion criteria for the current study. Forty-eight hips from the labral refixation and 48 hips from debridement groups with mean follow up of 10.3±1.7 years and 10.6±2.1 years respectively were included in the final analysis. No significant differences were observed in the femoral head, acetabular cartilage grade, or labral grade (normal, degeneration, detachment, full-thickness tear, or ossification) between the groups at the time of surgery. The mHHS improved 19.8±19.6 and 23.4±16.8 from baseline to the final follow up in the labral refixation and debridement groups, respectively (p=0.43). All HOOS subdomains and SF-12 physical and mental scores improved, but there were no significant differences between the labral refixation and debridement groups. Overall, 66% and 76% of the labral refixation and debridement groups achieved the minimal clinically important difference (MCID) for the mHHS respectively (p=0.30). There were more revision surgeries in the labral refixation compared to debridement group (10.4% versus 2.1% respectively, p=0.09), but more conversions to total hip replacement in the labral debridement group (8.3% versus 4.2% respectively, p=0.38), but neither of these differences were statistically significant.

DISCUSSION AND CONCLUSION:

Both labral refixation and debridement are effective with durable improvement in PROMS at a mean of 10 years in a prospective cohort of patients treated surgically for symptomatic FAI. No significant differences in baseline or final mHHS, HOOS, or SF-12 PROMS were observed, and similar rates of revision and conversion to hip replacement were observed in the debridement and refixation groups.