

Minimum 10-Year Outcomes of Contemporary Hip Arthroscopy for the Treatment of Femoroacetabular Impingement Syndrome: A Single Center Cohort of 500 Patients

Eric Hu, Jesus Emanuel Cervantes, Andrew Bi, Shane Jay Nho

INTRODUCTION: Hip arthroscopy for femoroacetabular impingement syndrome (FAIS) has proven to be an effective surgical intervention with high rates of return to sport and work, and favorable outcomes at short and mid-term follow-up. However, limited data exists on outcomes at long-term follow-up utilizing modern techniques such as labral repair and capsular closure. Thus, we aim to evaluate patient-reported outcomes (PROs) at minimum ten-year follow-up following primary hip arthroscopy including labral repair, osteochondroplasty, and capsular repair for FAIS.

METHODS: Patients who underwent primary hip arthroscopy for FAIS between January 2012 and October 2014 were identified. PROs were collected preoperatively and at 10-years, including Hip Outcome Score–Activities of Daily Living (HOS-ADL), Hip Outcome Score–Sports Subscale (HOS-SS), modified Harris Hip Score (mHHS), and Visual Analog Scale (VAS) for Pain and Satisfaction. Unique Minimal Clinically Important difference (MCID) and Patient Acceptable Symptomatic State (PASS) thresholds were calculated, and rates of achievement were analyzed. An alpha level of <0.05 was used to determine statistical significance.

RESULTS: A total of 500 patients (314 females; age: 33.8±12.3 years) were analyzed with follow-up of 10.4±0.4 years (range, 10.0–13.0 years). Patients demonstrated significant 10-year improvement across all PRO measures (p<0.001). MCID and PASS thresholds were calculated as follows: HOS-ADL (MCID: 9.8; PASS: 85.7), HOS-SS (14.9; 64.6), mHHS (8.9; 74.1), VAS Pain (-14.4; 28.2), and iHOT-12 (PASS: 77.9). The majority of patients achieved MCID and PASS for each PRO measure: HOS-ADL (MCID: 74.2%; PASS: 71.5%), HOS-SS (75.9%; 74.2%), mHHS (75.8%; 70.1%), VAS Pain (87.3%; 70.8%), iHOT-12 (PASS: 67.9%). 31 patients (6.2%) underwent subsequent revision hip arthroscopy and 35 (7.0%) underwent conversion to THA. Upon logistic regression, BMI, psychiatric history, and preoperative HOS-ADL were negatively predictive of MCID achievement for HOS-ADL. Psychiatric history was also negatively predictive of PASS achievement for HOS-ADL.

DISCUSSION AND CONCLUSION: Patients undergoing primary hip arthroscopy for FAIS utilizing contemporary methods of labral repair, acetabular and/or femoral osteochondroplasty, and capsular closure commonly experience sustained clinical improvement and low rates of reoperation at 10-year follow-up.

