Clinical Outcomes of Hip Arthroscopic Surgery: A Prospective Survival Analysis of Primary and Revision Surgeries in a Large Mixed Cohort.

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Abstract

BACKGROUND: With the rapid increase in hip preservation procedures, revision hip arthroscopic surgery and conversion to total hip arthroplasty (THA) or hip resurfacing (HR) after primary hip arthroscopic surgery have become a large focus in the recent literature.

PURPOSE: The primary purpose was to perform a survival analysis in a large mixed cohort of patients undergoing hip arthroscopic surgery at a high-volume tertiary referral center for hip preservation with a minimum 2-year follow-up. The secondary purpose was to compare clinical outcomes of primary versus revision hip arthroscopic surgery.

STUDY DESIGN: Cohort study; Level of evidence, 2.

METHODS: From February 2008 to June 2012, data were prospectively collected on all patients undergoing primary or revision hip arthroscopic surgery. Patients were assessed preoperatively and postoperatively with the modified Harris Hip Score (mHHS), Non-Arthritic Hip Score (NAHS), Hip Outcome Score-Activities of Daily Living (HOS-ADL), and Hip Outcome Score-Sport-Specific Subscale (HOS-SSS). Pain was estimated on a visual analog scale (VAS). Patient satisfaction was measured with the question "How satisfied are you with your surgery results?" (1 = not at all, 10 = the best it could be).

RESULTS: There were a total of 1155 arthroscopic procedures performed, including 1040 primary arthroscopic procedures (926 patients) and 115 revision arthroscopic procedures (106 patients). Of these, 931 primary arthroscopic procedures (89.5%) in 824 patients (89.0%) and 107 revision arthroscopic procedures (93.0%) in 97 patients (91.5%) were available for follow-up and included in our study. The mean change in patient-reported outcome (PRO) scores at 2-year follow-up in the primary arthroscopic surgery group was 17.4 for the mHHS, 19.7 for the HOS-ADL, 23.8 for the HOS-SSS, 21.3 for the NAHS, and -3.0 for the VAS, and the mean change in the revision arthroscopic surgery group was 13.4, 10.9, 16.1, 15.4, and -2.7, respectively. All scores improved significantly compared with preoperatively (P < .001). PRO scores were higher at all time points for the primary group compared with the revision group (P < .05). Mean satisfaction was 7.7 and 7.2 for the primary and revision groups, respectively. Of 931 primary arthroscopic procedures, 52 (5.6%) converted to THA/HR. Of 107 revision arthroscopic procedures, 12 (11.2%) converted to THA/HR. The relative risk of THA/HR was 2.0 after revision arthroscopic procedures compared with primary procedures. The cumulative incidence of competing risks of conversion to THA/HR and revision hip arthroscopic surgery after primary hip arthroscopic surgery was 2.6% and 5.8%, respectively. The overall complication rate was 4.3%.
CONCLUSION: Patients showed significant improvement in all PRO, VAS, and satisfaction scores at 2 years after hip arthroscopic surgery. Patients who underwent primary arthroscopic surgery showed higher PRO scores and a trend toward greater improvement in the VAS score compared with patients who underwent revision arthroscopic surgery. The relative risk of THA/HR was 2.0 after revision procedures compared with primary procedures.

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