

undergoing arthroscopic shoulder surgery to manage a lesion of LHB. Previous surgery on the affected shoulder or any other significant medical comorbidity were exclusion criteria. The primary outcome measure was the American Shoulder and Elbow Society standardized assessment of shoulder function (ASES). Secondary outcomes included: Western Ontario Rotator Cuff score (WORC), operative time, presence of cosmetic deformity, and elbow flexion and supination strength (affected/unaffected ratio). Study time points were pre, and 3, 6, 12, and 24 months post-operative. Magnetic resonance imaging (MRI) was conducted at 12-months post-operative.

Results: Fifty-six participants were randomly assigned to each group. Table 1 summarizes the current results to 12-months. There were no significant differences in ASES or WORC scores at pre- or post-surgery time points. MRI findings were available on 40 patients at the 12-month post-operative period. Of 23 in the tenodesis group, one was not intact and retracted 18 cm and two were partially torn. Of the 17 in the tenotomy group, none appeared retracted. The relative risk of patient-reported cosmetic deformity in the tenotomy group relative to the tenodesis group was 11.0 ($p=0.09$) at 12-months. There were no differences between groups in level of pain or cramping, or elbow flexion or supination strength at any time point.

Conclusion: Arthroscopic treatment of lesions of LHB, whether tenodesis or tenotomy, was shown to have favourable results. Tenodesis favoured tenotomy based on the presence/absence of cosmetic deformity. Otherwise, there were no measurable differences between techniques. As data continues to be gathered to 24-month post-operative, longer-term benefits and drawbacks of each procedure may become evident.

Mid-term Outcomes and Survivorship of Hip Arthroscopy for the Treatment of Labral Tears and Femoro-acetabular Impingement SS-29



May 19, 2017, 1:30 PM

ITAY PERETS, M.D., PRESENTING AUTHOR

BENJAMIN DOMB, M.D.

EDWIN CHAHARBAKHSI, B.S.

MARY CLOSE, B.S.

BRIAN MU, B.A.

LYALL ASHBERG, M.D.

Introduction: Mid-term clinical outcomes for patients undergoing current hip arthroscopic treatments for labral tears and femoro-acetabular impingement (FAI) have not yet been reported. Additionally, the general population of clinicians may not be adequately informed of these pathologies, which may lead to delayed diagnoses.

Methods: We conducted a retrospective review of prospectively collected data for patients that underwent hip arthroscopy between February 2008 and December 2010. Patients with previous ipsilateral hip conditions were excluded. Each patient's age at onset of hip symptoms and at surgery were documented. The modified Harris Hip Score (mHHS), Non-Arthritic Hip Score (NAHS), Hip

Outcome Score – Sport Specific Subscale (HOS-SSS), and visual analog scale for pain (VAS) were documented preoperatively and at a minimum of five years post-operatively. Patient satisfaction was documented at follow-up. Revision surgeries, conversions to arthroplasty, and postoperative complications were documented.

Results: We analyzed 205 hips with mean follow-up of 69.3 months. A mean of 24 months between onset of hip symptoms and surgery was observed. There were significant improvements in all patient-reported outcomes (PROs) from preoperatively to latest follow-up: mHHS (64.8 to 82.8), NAHS (62.2 to 85), HOS-SSS (47.2 to 75), and VAS (5.8 to 2.1). Mean satisfaction at follow-up was 8.0. Fourteen patients underwent revision arthroscopy during the follow-up period. Survivorship at latest follow-up was 89.3%. There was a 5.4 rate of major complications; the most common was numbness, which occurred after 2.4% of surgeries and resolved in 80% of cases.

Conclusion: Hip arthroscopy for the treatment of labral tears and FAI is a safe procedure that demonstrates good mid-term results with high patient satisfaction and 89.3% survivorship. These pathologies may have delayed diagnoses, which is supported by the two-year differential between onset of hip symptoms and surgical treatment.

Patient Reported Outcomes of Capsular Repair versus Capsulotomy in Patients Undergoing Hip Arthroscopy: Minimum 5-Year Follow-Up. A Matched Cohort Study SS-30



May 19, 2017, 1:35 PM

LYALL ASHBERG, M.D., PRESENTING AUTHOR

BENJAMIN DOMB, M.D.

EDWIN CHAHARBAKHSI, B.S.

ITAY PERETS, M.D.

BRIAN MU, B.A.

MARY CLOSE, B.S.

Introduction: This study aimed to elucidate what effect various capsular management strategies during hip arthroscopy might have on patient outcomes over the mid-term.

Methods: Between February 2008 and February 2011, data were prospectively collected on patients undergoing hip arthroscopy. Patients were matched for age \pm 5 years, gender, BMI \pm 5, Workman's Compensation claim, and acetabular coverage. Inclusion criteria were unrepaired capsulotomy or closure and lateral-center edge angle (LCEA) $\geq 18^\circ$. Exclusion criteria were previous hip surgery or conditions and preoperative Tönnis grade >1 . Patient-reported outcome scores (PROs) including modified Harris Hip Score (mHHS), Non-Arthritic Hip Score (NAHS), Hip Outcome Score-sport specific subscale (HOS-SSS) and Visual Analogue Score for pain (VAS) were collected preoperatively, at 3 months, and annually thereafter. Patient satisfaction was recorded from 0-10 (10=most satisfied).

Results: Minimum five-year follow-up was available for 287 (82.5%) of 348 hips that met inclusion criteria. Of these 287 hips, 172 underwent unrepaired capsulotomy

and 115 underwent capsular repair. Sixty-five capsular closure patients were matched in a 1:1 ratio to 65 capsular release patients. Both groups saw significant improvements in all mean PROs at latest follow-up. In the repair group, mean PROs, VAS, and patient satisfaction were significantly improved at two and minimum five-year follow-up. In the unrepaired group, there was significant decrease in mHHS ($p=0.001$) and patient satisfaction ($p=0.01$) between two and five-year follow-up. More patients in the release group required conversion to hip arthroplasty (18.5% vs. 10.8%). The rate of revision arthroscopy was the same in both groups (15.4%).

Conclusion: This study demonstrates that patients undergoing hip arthroscopy can expect to have significant improvement at minimum five-year follow-up, whether or not the capsule is closed. However, patients who underwent capsular release had a significant deterioration in mHHS between two and five years postoperatively and a higher rate of conversion to arthroplasty.

Independent Risk Factors for Revision Surgery or Conversion to THA after Hip Arthroscopy: An Analysis of 3,957 Patients SS-31



May 19, 2017, 1:40 PM

BENJAMIN KESTER, M.D., PRESENTING AUTHOR

SIDDHARTH MAHURE, M.D., M.B.A.

BRIAN CAPOGNA, M.D.

MICHAEL RYAN, M.D.

ALBIT PAOLI, B.S.

ANDREW ROKITO, M.D.

THOMAS YOUM, M.D.

Introduction: The use of hip arthroscopy for the management of hip pathology has increased dramatically in recent years. Despite evidence demonstrating excellent outcomes, there are some patients that may require revision arthroscopy or conversion to total hip arthroplasty (THA). Data regarding risk factors for poor outcomes after hip arthroscopy is limited. The purpose of this study is to evaluate the rates of revision hip arthroscopy and conversion to THA in order to identify risk factors for suboptimal outcomes.

Methods: New York State Department of Health State-wide Planning and Research Cooperative Systems database was queried from 2011 through 2014 to identify patients undergoing hip arthroscopy. Patients were longitudinally followed for a minimum of two years to determine the incidence and nature of subsequent hip procedures. Multivariate logistic regression was performed to identify independent risk factors for revision surgery or conversion to THA.

Results: We identified 3,957 patients who underwent hip arthroscopy. Mean age of the sample was 35.8 years ($SD\pm 13.1$). After a minimum follow-up of two years, overall failure rate was 9.6%: 3.7% ($n=148$) had revision hip arthroscopy at an average of 15.8 months, while 5.9% ($n=235$) converted to THA at 14.7 months. Index surgery performed by surgeons in the lowest volume tertile was an independent risk factor for both revision ($p=0.001$) and

conversion to THA ($p<0.001$). Females ($p<0.001$), older patients ($p<0.001$) and those with a history of obesity ($p<0.001$) converted to THA at a significantly higher rate than other patients. Young patients ($p<0.001$) and females ($p<0.001$) were more likely to undergo revision hip arthroscopy.

Conclusion: Hip arthroscopy may be better performed by medium to high volume surgeons. Additionally, patients with identified risk factors for revision or THA conversion should be counseled pre-operatively on potentially adverse outcomes, thus allowing patient-physician engagement during the shared decision-making process.

Low Body Mass Index and Obesity associated with Lower Outcomes Following Hip Arthroscopy for Femoroacetabular Impingement SS-32



May 19, 2017, 1:45 PM

JUSTIN MITCHELL, M.D., PRESENTING AUTHOR

ALEXANDER VAP, M.D.

KAREN BRIGGS, M.P.H.

SHANNEN McNAMARA, B.S.

MARC PHILIPPON, M.D.

Introduction: The purpose of this study was to compare patient reported outcomes for patients undergoing primary hip arthroscopy for femoroacetabular impingement (FAI) based upon their BMI.

Methods: 738 patients (Female 353, Male 385) with average age 36 (18-70) diagnosed and treated for primary FAI met the inclusion criteria. Patients were included if they underwent hip arthroscopy with labral repair and femoral and/or acetabular osteoplasty. Any patient that had previously undergone hip surgery, arthroscopic or open were excluded. Patients were divided into four cohorts based upon world health organization BMI classification: 1. < 18.5 kg/m², 2. $18.5 - 24.9$ kg/m², 3. $25.0 - 29.9$ kg/m², 4. > 30 kg/m².

Results: Mean weight was 74.0 kg (44 – 144 kg). Mean Height was 174.5 cm (104.1 – 213.4 cm). Mean BMI was 24.1 kg/m² (15.1 – 44.1 kg/m²). Groups 1 (18:1) and 2 (276:181) were predominantly female while Groups 3 (180:49) and 4 (23:10) were predominantly male. BMI was correlated with age ($\rho=0.10$; $p=0.006$), lateral joint space ($\rho=0.09$; $p=0.016$), alpha angle ($\rho=0.08$; $p=0.0280$), flexion ($\rho=-0.253$, $p<0.001$), abduction ($\rho=-0.144$; $p<0.001$), adduction ($\rho=-0.1$; $p=0.0150$) and internal rotation ($\rho=-0.27$; $p<0.001$). BMI did not correlate with pre-op or post-op outcome scores (HOS ADL, HOS Sport, MHHS, WOMAC, and SF12). Comparison between the 4 groups showed significant differences in range of motion (Table 1). Pre-op MHHS, and HOS ADL were significantly different between groups, with Group 2 and 3 having the highest scores. Post-op HOS sport was also significantly different between groups.

Conclusion: When a patient's BMI is categorized according to WHO guidelines, obese patients have lower preoperative status and outcomes, patients in the overweight category do not. In addition, patients in Group 1