

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

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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

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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

had the lowest post-op outcome scores of all groups. This highlights the possibility that nutritional balance for patients is more than their BMI.

Arthroscopic Acetabular Labral Repair in Patients over the Age of 60: A Matched Case-Control Study

SS-33

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Introduction: The purpose of this study is to report the results of labral restoration among patients over age 60 compared to a cohort of younger adults.

Methods: 23 consecutive patients over age 60 undergoing labral repair with minimum one-year follow-up were compared (modified Harris hip Score) to a contemporaneous group of 23 patients age 18-55 matched for gender, degree of chondral damage, and associated FAI or dysplasia.

Results: Follow-up averaged 17.5 months (12 - 24 months). The study group consisted of 13 males and 10 females, average age 63 years (61 - 71); with 21 FAI and one dysplasia. 20 had acetabular articular damage (2 grade IV, 12 grade III, 5 grade II, 1 grade I) and 7 had femoral changes (1 grade IV, 6 grade 3). The exactly matched control group averaged 36 years (20 - 54). Study group improvement averaged 21 points (-19 - 46 points) with 20 (87%) improved. The average improvement in the control group was 19 points (-9 - 34) with 20 (87%) improved. There was no statistically significant difference between the two groups and the amount of improvement with statistically ($p < 0.01$) and clinically (> 5 points) significant in both. Two study group patients underwent THA at average 10 months with one control group THA at 11 months. All three converted to THA had combined grade IV acetabular and grade III femoral damage. There were no repeat arthroscopies and no complications in either group.

Conclusion: Patients over age 60 can benefit from arthroscopic labral repair with improved outcomes, modest rates of conversion to THA, and small risk of complication. Results are comparable to younger adults. Combined bipolar grade IV and grade III articular damage is a harbinger of conversion to THA, regardless of age.

Correlation of PROMIS CAT with Validated Hip Outcome Scores in Patients Undergoing Hip Arthroscopy

SS-34

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Introduction: The Patient Reported Outcomes Measurement Information System (PROMIS) tool was developed

by the National Institute of Health to provide efficient, precise and valid patient-reported outcome data. The purpose of this study was to determine whether the PROMIS Computer Adaptive Testing (CAT) tool demonstrates validity against commonly used legacy PRO measures among a population of patients undergoing arthroscopic hip surgery.

Methods: Eligible patients undergoing elective arthroscopic hip surgery completed a series of outcome questionnaires including the visual analog pain scale (VAS), a hip outcome score (HOS; ADL and Sports Subscales), modified harris hip (mHHS), and non-arthritic hip score (NAHS) as well as the PROMIS CAT for pain, physical function and emotional distress (depression). Patients completed all questionnaires at their preoperative evaluation and at regular postoperative intervals.

Results: A total of 77 patients elected to be included in this study, 28 (36.8%) were male and 49 (64.5%) were female. With regards to questionnaire completion, data from all patient reported outcome measures were gathered from 77 patients at their preoperative clinical visit, 71 during their first postoperative follow up, 69 at 6 weeks and 58 at 3 months postoperatively. Pearson correlations between PROMIS Physical Function T scores and the HOS ADL, HOS Sports, NAHS and mHHS were found to be 0.858, 0.799, 0.773 and 0.830 respectively. With regards to pain, the Pearson correlation between the PROMIS Pain T score and the VAS for pain was found to be 0.599.

Conclusion: The PROMIS tool was found to correlate well with current standards for patient reported outcome measures for individuals undergoing arthroscopic hip surgery. PROMIS Physical Function demonstrated high correlation with validated PRO. PROMIS Pain had moderate correlation with VAS Pain scores. With this information, the PROMIS tool can be used as a highly efficient and generalizable tool to collect pre- and post-operative data during clinical patient encounters.

The Relationship Between Arthroscopically Defined Acetabular Cartilage Defects and Preoperative dGEMRIC Indices: Refining the use of dGEMRIC

SS-35

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Introduction: dGEMRIC is an advanced imaging technique that may detect early chondral damage. Although dGEMRIC may be useful in diagnosing early arthritis, there is a paucity of literature correlating local chondral damage with dGEMRIC indices. The purpose of this study was to report associations between dGEMRIC indices and intraoperatively defined acetabular cartilage damage in non-arthritic hips with femoro-acetabular impingement and/or labral tears, and to evaluate a new dGEMRIC index