

increased from 69 to 88. NAH score improved 20 points to 85. MHH score improved 21 points to 82. Patient Satisfaction was 8.5 (range 1 to 10). 11 of the 52 patients were at least one year post-op. The average age within this subgroup was 34 (range 17 to 45). There was a significant improvement in all scores ($p < 0.05$) compared to preoperative values and patient satisfaction was 8.8. At one year, HOS (SPORT) increased from 34 to 80 points, HOS (ADL) improved 22 points to 86, NAH improved 31 points to 89 and MHH score increased from 58 to 83 points.

Conclusions: Patients experienced improvement in function at least 6 months postoperatively. Patients continue to experience improvement at one year or more. Early results demonstrate that arthroscopic labral repair for the treatment of labral tears lead to improved level of function and high patient satisfaction. This reveals the potential of labral repair in pain management and joint preservation. This may be important when developing a standard of surgical labral tear treatment.

Arthroscopic Bursectomy for Recalcitrant Trochanteric Bursitis (SS-18). *Champ L. Baker, MD, Vaughn Massie, MD*

Summary: We evaluated the results of arthroscopic treatment for patients with chronic recalcitrant trochanteric bursitis who had not responded to nonoperative interventions. Arthroscopic bursectomy appears to be effective and a viable alternative to open bursectomy in these patients. In this prospective study, patients experienced good pain relief and improved function after surgery. Patients' improvements were usually evident by 1 to 3 months after surgery and appear to be lasting because patients maintained their improved scores throughout the follow-up period.

Methods: Thirty patients were enrolled in this prospective study to evaluate the results of arthroscopic bursectomy. Outcomes were assessed using the Short Form-36 (SF-36), Harris Hip Score, visual analog pain (VAS) scale, and additional specific hip function questions. Five patients were lost to follow-up. Twenty-five patients were available for follow up at an average of 26.1 months (range, 13.8-41 months).

Results: Improvements were noted in the physical and mental component summary scores of the SF-36. Mean physical function preoperative score improved from 33.6 preoperatively to 54 at last follow up, and in the pain category, the mean score improved from 28.7 to 51.5. Mean Harris Hip scores improved from a preoperative score of 51 to a follow-up score of 77. VAS pain scale scores also improved from the preoperative mean

of 7.2 (0 = no pain; 10 = worst pain) to 3.1. One postoperative complication occurred, a seroma that required repeat surgery. One patient subsequently underwent open bursectomy with resolution of symptoms.

Conclusions: Arthroscopic bursectomy appears to be effective and a viable alternative to open bursectomy for patients who do not respond to nonoperative treatment. In this prospective study, patients experienced good pain relief and improved function after surgery. Patients' improvements were usually evident by 1 to 3 months after surgery and appear to be lasting because patients maintained their improved scores throughout the follow-up period.

The Reliability and Validity of Clinical Tests Used to Assess Individuals with Potential Labral Tears of the Hip (SS-20). *RobRoy L. Martin, PhD, PT, CSCS, Jon K. Sekiya, MD*

Purpose: The purpose of this study was to determine the reproducibility and diagnostic accuracy of clinical tests used to examine individuals with potential labral tears of the hip. Specifically, the inter-tester reliability of the FABER, flexion-internal rotation impingement, and log roll tests as well as an assessment for greater trochanteric tenderness was examined. The diagnostic accuracy of the FABER, flexion-internal rotation impingement, flexion-external rotation tests in identifying individuals with a labral tear was also examined. We hypothesized that the four clinical tests would demonstrate moderate agreement (kappa coefficient $> .40$) in inter-tester reliability assessment. Additionally, we hypothesized that the clinical tests would demonstrate sensitivity and specificity values $> .5$ with likelihood ratio for a positive test > 1 for diagnosing a labral tear.

Methods: All patients evaluated by an orthopaedic surgeon specializing in hip arthroscopy for a musculoskeletal hip problem were included in the study. These 85 subjects had a mean age of 41 (range 15-76 SD 14.9) with 40 females and 45 males. 41% of the subjects reported their symptom duration to be 1 year or less while 59% reported their symptom duration to be greater than 1 year. The results of the clinical tests performed by the orthopaedic surgeon were compared to the results obtained by a physical therapist with 15 years experience. Kappa coefficients were calculated to assess inter-tester reliability. As previously documented, the strength of agreement for kappa (κ) was interpreted as follows: ≤ 0 =poor, .01-.2=slight, .21-.40 fair, .41-.60=moderate, .61-.80=substantial, .81-.1=almost perfect. The results of the clinical tests were compared to magnetic resonance arthrogram (MRA) results in identifying individ-

uals with a labral tear. Diagnostic accuracy of the clinical test was assessed by calculating sensitivity, specificity, and likelihood ratios.

Results: As hypothesized clinical tests had better than moderate agreement with kappa values as follows: Flexion-internal rotation impingement test $\kappa = .69$, log roll test $\kappa = .53$, greater trochanteric tenderness $\kappa = .72$ and FABER test $\kappa = .45$. Diagnostic accuracy of clinical tests in diagnosing individuals with a labral tear was as follows: Flexion-internal rotation impingement test sensitivity = .75, specificity = .07 and a positive likelihood ratio = .81; FABER sensitivity = .65, specificity = .19 and positive likelihood ratio = .80; Flexion with external rotation sensitivity = .29, specificity = .67 and positive likelihood ratio = .89.

Conclusions: The flexion-internal rotation impingement test, log roll test and assessment for greater trochanteric tenderness seem to be reliable clinical tests. The reliability of the FABER test seems to be less than the other clinical examination tests. While the flexion-internal rotation and FABER had very high sensitivity, the specificity was low. Contrary to this the flexion-external rotation test had low sensitivity but high specificity. Further studies are needed to examine the diagnostic accuracy of these tests when exam findings are clustered together. In conclusion, the results of this study will allow the clinical examination for an individual with a potential labral tear to be more meaningfully interpreted.

Outcomes Following Hip Arthroscopy With Microfracture (SS-21). *Marc J. Philippon, MD, Karen Briggs, MPH, David Koppersmith, MD, Sophia Hines, BS, R. Brian Maxwell, MD*

Summary: The purpose of this study was to document 1 year outcomes in patients who underwent hip arthroscopy with microfracture. Microfracture technique to treat full thickness chondral defects in the hip can increase level of function, result in high patient satisfaction, and reduce symptoms as shown by the Harris Hip Score, non-arthritic hip score, and the hip outcome sports scale. Younger patients had better outcomes according to the non-arthritic hip score and showed a significant change in level of function.

Purpose: Indications for microfracture in the hip include full-thickness loss of articular cartilage in the weight-bearing region between the femur and acetabulum. The purpose of this study was to document 1 year outcomes in patients who underwent hip arthroscopy with microfracture.

Methods: Between 3/2005 and 6/2005, 19 hips underwent hip arthroscopy with microfracture. Average age at time of surgery was 47 years (range: 20-73).

Surgical data and patient completed questionnaires were collected. The hip outcome score (HOS) sports scale, Harris Hip Score, and non-arthritic hip score were used to compare symptoms and level of function. Patient satisfaction was obtained (1 = unsatisfied ; 10 = satisfied).

Results: Average pre-operative non-arthritic hip score was 64 (range: 14-81) and 77 post-operative (range: 53-95; $p = 0.010$). The average pre-operative Harris Hip Score for all patients was 58 (range: 18-77) and post-operatively 74 (range: 31-96; $p = 0.03$). The average pre-operative HOS sports score was 44 (range: 3-61) and 62 post-operative (range: 0-91; $p = 0.039$). Eleven patients had microfracture solely on the acetabulum, 6 only the femoral head, and 2 patients had microfracture on both acetabulum and femoral head. Patients with microfracture on the femoral head showed better improvement in the Harris Hip Score (22 points) when compared to patients who underwent acetabular microfracture (11 points). Patient satisfaction was 8.6 out of 10 (range: 2-10). In patients less than 40 years old, the non-arthritic hip score was higher (86) than those patients 40 years or greater (72) ($p = 0.038$).

Conclusions: Microfracture technique to treat full thickness chondral defects in the hip can increase level of function, result in high patient satisfaction, and reduce symptoms as shown by the Harris Hip Score, non-arthritic hip score, and the hip outcome sports scale. Younger patients had better outcomes according to the non-arthritic hip score and showed a significant change in level of function.

Does Slower Rehabilitation After Arthroscopic Rotator Cuff Repair Lead to Stiffness? (SS-22). *Kenneth J. Accousti, MD, Bradford Parsons, MD, James Gladstone, MD, Raymond Klug, MD, Evan Flatow, MD*

Summary: Early passive range of motion (PROM) has been advocated following open rotator cuff repair to prevent stiffness. We sought to examine the effect of a conservative post-operative regimen. Six weeks of sling immobilization after arthroscopic rotator cuff repair did not result in stiffness at one year follow-up. Additionally, patients with perioperative stiffness trended toward better tendon healing rates.

Purpose: Early passive range of motion (PROM) has been advocated following open rotator cuff repair to prevent stiffness. Because of concern over re-tear rates after arthroscopic repair, many authors have advocated slower rehabilitation. We sought to examine the effect of