grade > 1, or acetabular dysplasia. The PROs of the primary labral reconstruction study group were compared against a PM benchmark primary labral repair control group based on age at time of surgery, sex, and body mass index in a 1:4 ratio. The minimal clinical important difference (MCID), and the revision surgery rates were reported and compared. A threshold P value of 0.05 was used to determine statistical significance. Results: Thirteen hips (13 patients) that underwent primary labral reconstruction were included. The mean age was 18.8 years and 38.5% of patients were males. All primary labral reconstruction patients were PM to a control group of 52 hips (49 patients). The improvement (delta value) at minimum 2-year follow-up was comparable between the PM groups for all PROs with high satisfaction (P = 0.284). The control repair group (P = 0.048) experienced significantly lower pain scores using the Visual Analog Scale (VAS) for pain at minimum 2-year follow-up. Rates for MCID achievement and revision surgeries were comparable between the two groups. Conclusion: In the context of irreparable labral tears, primary labral reconstruction in adolescents demonstrated significant improvement and high patient satisfaction at a minimum 2-year follow-up that was comparable to a benchmarked PM primary labral repair control group. Further, the clinical benefit, and the rate of secondary surgeries were also comparable. However, the improvement for the VAS for pain favored the labral repair group. Level of Evidence: Level III, retrospective comparative study.

Category: Hip/Groin/Thigh

Labral Tear Management in Patients Aged 40 Years And Older Undergoing Primary Hip Arthroscopy: A Propensity-Matched Case-Control Study Comparing Labral Reconstruction to Labral Repair With Minimum Two-Year Follow-Up

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Summary:
The purpose is to report minimum two-year patient-reported outcome (PRO) scores, survivorship, and secondary surgeries, in patients aged ≥ 40 years who underwent primary hip arthroscopy with labral reconstruction compared to a propensity-matched primary labral repair group.

Data:
Background: Previous literature has suggested that primary acetabular labral reconstruction leads to lower secondary surgeries rates than that of labral repair for patients aged ≥ 40 years. Purpose: To report minimum two-year patient-reported outcome (PRO) scores, survivorship, and secondary surgeries, in patients aged ≥ 40 years who underwent primary hip arthroscopy with labral reconstruction compared to a propensity-matched primary labral repair group. Study Design: Case-Control study; Level of evidence, 3. Methods: Data were prospectively collected and retrospectively reviewed for patients who underwent a primary hip arthroscopy for femoroacetabular impingement syndrome from January 2014 to June 2018. Patients aged ≥ 40 years who underwent a labral reconstruction or a labral repair and had preoperative and minimum two-year PROs for the modified Harris Hip Score (mHHS), Non-arthritic Hip Score (NAHS), and visual analog scale (VAS) for pain were included. Patients with prior ipsilateral hip conditions and surgery, Tonnis grade > 1, hip dysplasia, or worker’s compensation status were excluded. Patients in the reconstruction group were propensity-matched 1:2 to patients in the repair group based on age, sex, and body mass index. Secondary surgeries and the achievement of the minimal clinically important difference (MCID), patient acceptable symptomatic state (PASS), and maximum outcome improvement (MOI) were recorded. Results: Fifty-three and 106 hips were included in the labral reconstruction and repair groups, respectively. The average follow-up time was 37.6 months. The average age for the reconstruction and repair groups were 48.01 ± 5.4 years and 48.61 ± 6.0 years, respectively. Both groups achieved significant improvements in all PROs at minimum two-years with similar achievements of MCID, PASS, and MOI. Both groups showed comparable secondary surgeries rates. Conclusion: Patients aged 40 years and older who received primary labral repair and primary labral reconstruction, achieved similar significant improvements in all PROs, VAS pain, and patient satisfaction at minimum two-year follow-up, with comparable rates of secondary surgeries and achieving MCID, PASS, and MOI. Based on these findings, labral repair remains the gold standard treatment for viable labrum in this population group, while reconstruction is a useful alternative for irreparable labrum. Keywords: hip arthroscopy; outcomes; labral reconstruction.

Category: Hip/Groin/Thigh

Traction Force During Postless Hip Arthroscopy is Determined by Hip Range of Motion, Generalized Joint Hypermobility, Body Mass Index, and Sex

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Summary:
Males, patients with reduced preoperative hip ROM, patients with a lack of joint hypermobility, and males with an elevated BMI require higher initial traction force during postless hip arthroscopy.

Data:
Background: Higher traction force during hip arthroscopy has been associated with various complications. Previous studies have sought to determine the effects of age, body mass index (BMI), and hip osteoarthritis on traction force during hip arthroscopy. The purpose of this study was to determine the effects of demographic and anatomic factors on traction force required during postless hip arthroscopy. Methods: A prospective database was used to analyze data on patients undergoing hip arthroscopy by the senior author, including patient sex, age, BMI, Beighton Hypermobility Score (BHS), hip range of motion (ROM) in clinic and under anesthesia, hip dysplasia, acetabular version, and femoral version. All patients underwent postless hip arthroscopy with or without periacetabular osteotomy (PAO). At the initiation of hip arthroscopy, the traction force required to distract the hip joint was measured prior and following inter-portal capsulotomy. Multiple regression analysis was performed to determine the effects of demographic and anatomic factors on measured distraction force. Results: In total, 352 hips (114 male, 238 female) were included with a mean age of 32.6 years and a mean BMI of 24.1 kg/m2. Mean initial traction force was 109 lbs and decreased to 94.3 lbs following capsulotomy (p < 0.0001). The starting traction force was significantly higher in males (p < 0.05), patients with a lack of hypermobility (BHS score of 0-2) (p < 0.05), and in patients with lower abduction (p < 0.05), lower internal rotation (p < 0.05), and lower external rotation (p < 0.05) on multiple regression analysis. When performing a sub-analysis divided by sex, male patients with elevated BMI required significantly higher starting traction force (p < 0.05). Lateral center edge angle, sourcil angle, and the presence of hip dysplasia did not demonstrate a significant correlation with traction force. Conclusion: Males, patients with reduced preoperative hip ROM, patients with a lack of joint hypermobility, and males with an elevated BMI require higher initial traction force during postless hip arthroscopy. Surgeons should put emphasis on patients’ preoperative ROM and can use this information to discuss the possibility of traction-related complications with patients prior to surgery.