Overall, our data provide evidence that coexisting hip and spine disorders are not a contraindication for arthroscopic hip preservation surgery.

**Category: Hip/Groin/Thigh**

**Primary Labral Reconstruction Versus Labral Repair In Patients With Femoroacetabular Impingement: An Inverse Propensity Score Weighted Analysis of Patient Reported Outcomes and Subsequent Surgery Risk**

**Abstract ID# 23334**

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Summary:
A causal inference analysis comparing the postoperative outcomes of femoroacetabular impingement patients treated with primary hip labral reconstruction versus labral repair.

**Data:**

Introduction: Since its creation, labral repair has become the preferred method among surgeons for the arthroscopic treatment of acetabular labral tears resulting in pain and dysfunction for patients. Labral reconstruction is performed mainly in the absence of cam or pincer morphology, with any one of these confirming diagnosis. Those who received plication were compared with those who did not. Patient-reported outcomes included International Hip Outcome Tool (iHOT12), Hip Disability and Osteoarthritis Scores (HOOS) and patient satisfaction with minimum 2-year follow-up. Surgical outcomes were 2-year rates of subsequent ipsilateral hip joint surgery, with incidence of conversion to arthroplasty obtained from a national register. RESULTS: A total of 271 hips (240 patients) aged 31.5 ± 10.9 years (mean ± SD), 253 (93%) females, were included in this analysis, of which 207 (76%) received plication. Though pre-operative to follow-up change in iHOT12 did not differ statistically between treatment groups (plication increased from 29 ± 15 to 67 ± 26 versus non-plication from 31 ± 14 to 63 ± 29), both HOOS-symptoms and -quality-of-life subscores improved more in those undergoing plication compared to non-plication (HOOS-symptoms from 53 ± 18 to 75 ± 19 versus 56 ± 17 to 71 ± 19, p = 0.03; and HOOS-quality-of-life from 27 ± 16 to 63 ± 24 versus 31 ± 16 to 56 ± 27, p = 0.02). Of those who had the plication procedure, 87% of patients indicated that they definitely (47%) or probably (40%) would have the surgery again, compared with 80% (53% definitely and 28% probably) of those with no plication, though group differences were not statistically significant. The overall 2-year rate of revision surgery (1.8%) and arthroplasty conversion (1.1%) was not different between groups.

CONCLUSION: Data from this large sample confirm that hip microinstability can be successfully treated with plication, particularly in reducing unwanted symptoms and improving overall quality of life.

**Category: Hip/Groin/Thigh**

**Dancers Following Primary Hip Arthroscopy For Demonstrate Favorable Outcomes and High Rate Of Return To Dance At Minimum 5-Year Follow-Up**

**Abstract ID# 21498**

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Summary:
This study reported a minimum 5-year follow up of patient reported outcome measurement scores, clinical benefit, and return to dance in dancers who underwent primary hip arthroscopy.

**Data:**

Background: There is a paucity of literature surrounding the mid-term outcomes in dancers following primary hip arthroscopy. Purpose: To report a minimum 5-year follow-up patient-reported outcome measurement scores (PROMS), clinical benefit, and return to dance in dancers who underwent primary hip arthroscopy. Methods: All primary hip arthroscopy data was prospectively collected and retrospectively reviewed for dancers who were recorded between May 2010 and June 2016. Patients were eligible if they indicated they participated in dance one year prior to surgery at the professional, college, high school, organized amateur, or recreational level and had preoperative and minimum 5-year follow-up scores for the modified Harris Hip Score (mHHS), Nonarthritic Hip Score (NAHS), Hip Outcome Score – Sports Specific Subscale (HOS-SSS), and Visual Analog Scale for

**Category: Hip/Groin/Thigh**

**Plication For Intra-Operatively Confirmed Microinstability: How Well Does It Work?**

**Abstract ID# 23575**

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Summary:
In a consecutive sample of hip arthroscopy patients with intra-operatively confirmed microinstability, those treated with plication showed reduced symptoms and improved quality-of-life compared to no plication.

**Data:**

BACKGROUND: There is growing consensus that intra-operative confirmation of hip microinstability is the gold standard diagnosis. Surgical treatment entails plication to reduce compliance of hip capsular ligaments, but few studies have analysed longer term outcomes. PURPOSE: To compare outcomes of arthroscopy patients with hip microinstability who received capsular plication with those who did not, using consecutive sampling of a large single-surgeon cohort.

METHODS: We reviewed our prospective database for primary hip arthroscopies undertaken between 2009 and 2020 with intra-operative indications of hip microinstability. Criteria included either ease of distraction of the hip, an isolated straight anterior labral tear, inside-out chondral lesion, or a lateral labral tear in the absence of cam or pincer morphology, with any one of these confirming diagnosis. Those who received plication were compared with those who did not. Patient-reported outcomes included International Hip Outcome Tool (iHOT12), Hip Disability and Osteoarthritis Scores (HOOS) and patient satisfaction with minimum 2-year follow-up. Surgical outcomes were 2-year rates of subsequent ipsilateral hip joint surgery, with incidence of conversion to arthroplasty obtained from a national register. RESULTS: A total of 271 hips (240 patients) aged 31.5 ± 10.9 years (mean ± SD), 253 (93%) females, were included in this analysis, of which 207 (76%) received plication. Though pre-operative to follow-up change in iHOT12 did not differ statistically between treatment groups (plication increased from 29 ± 15 to 67 ± 26 versus non-plication from 31 ± 14 to 63 ± 29), both HOOS-symptoms and -quality-of-life subscores improved more in those undergoing plication compared to non-plication (HOOS-symptoms from 53 ± 18 to 75 ± 19 versus 56 ± 17 to 71 ± 19, p = 0.03; and HOOS-quality-of-life from 27 ± 16 to 63 ± 24 versus 31 ± 16 to 56 ± 27, p = 0.02). Of those who had the plication procedure, 87% of patients indicated that they definitely (47%) or probably (40%) would have the surgery again, compared with 80% (53% definitely and 28% probably) of those with no plication, though group differences were not statistically significant. The overall 2-year rate of revision surgery (1.8%) and arthroplasty conversion (1.1%) was not different between groups.

CONCLUSION: Data from this large sample confirm that hip microinstability can be successfully treated with plication, particularly in reducing unwanted symptoms and improving overall quality of life.
pain (VAS). Dancers were excluded if they were unwilling to participate, had a previous hip condition (i.e. hip dysplasia (lateral-center-edge angle (LCEA) < 18°), underwent previous surgery on ipsilateral hip, or had a Tönnis osteoarthritis grade > 1. The minimal clinically important difference (MCID), patient acceptable symptomatic state (PASS), and maximum outcome improvement satisfaction threshold (MOI) were used to evaluate patient postoperative satisfaction and improvement. Results: Fifty-two hips (49 dancers) (82.5%) had minimum 5-year follow-up. The average age of the cohort was 30.0 ± 17.1 years, and all patients were female. The average follow-up time was 79.1 ± 23.2 months. Dancers significantly improved in all PROMS (p < 0.001). Additionally, they had a high rate of satisfaction of 8.4 ± 2.1 at minimum 5-year follow-up. They achieved high rates of MCID for the mHHS, NAHS and VAS for pain, 83.3%, 85.7% and 85.7%, respectively and high rates of PASS for the mHHS, and iHOT-12, 90.5% and 81.0%, respectively. Six dancers (14.3%) underwent revision hip arthroscopy and three dancers (5.8%) converted to total hip arthroplasty. The rate to return to dance was 79.1%. At minimum 5-year follow-up 89.7% of dancers continued to dance and 57.7% dancers were able to return at the same or higher level prior to surgery. Conclusion: Primary hip arthroscopy in dancers was successful as they experienced favorable PROMS, and achieved high rates of MCID for the mHHS, NAHS, and VAS and high rates of achievement for the MCID and PASS. Dancers experienced a high rate of 89.7% of continuing to dance at least 5 years after surgery with 57.7% returning to the pre-injury or higher performance level.

Category: Hip/Groin/Thigh

Hip Sport Test as a Measure of Functional Strength and Range of Motion Prior to Hip Arthroscopy

Abstract ID# 22081
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Summary:
Will a standardized hip sport test have a correlation with post op hip strength, ROM and PRO?

Data:
Purpose: As the field of hip arthroscopy continues to develop, functional measures and testing become increasingly important for patient selection, managing patient expectations prior to surgery, and physical readiness for return to athletic participation. The Hip Sport Test (HST) was developed to assess strength, coordination, agility, and range of motion prior to and following hip arthroscopy as a functional assessment. However, the relationship between HST and hip strength, range of motion, and hip-specific patient reported outcome (PRO) measures have not been investigated. The purpose of this study was to evaluate the correlation between the HST scores and measurements of hip strength and range of motion prior to undergoing hip arthroscopy. Methods: Between September 2009 and January 2017, patients aged 18-40 who underwent primary hip arthroscopy for the treatment of femoroacetabular impingement with available pre-operative HST, dynamometry, range of motion, and functional scores (mHHS, WOMAC, HOS-SSS) were identified. Patients were excluded if they were <18 or >40 years old, had a Tegner activity score < 7, or did not have HST and dynamometry evaluations within one week of each other. Muscle strength scores were compared between affected and unaffected side to establish a percent difference with a positive score indicating a weaker affected limb and a negative score indicating a stronger affected limb. Correlations were made between HST and strength testing, range of motion, and PROs. Results: A total of 350 patients met inclusion criteria. The average age was 26.9 ± 6.5 years, with 34% females and 36% professional athletes. Total and component HST scores were significantly associated with measure of strength most strongly for flexion (r=−0.20, p < 0.001), extension (r=−0.24, p < 0.001) and external rotation (r=−0.20, p < 0.001). Lateral and diagonal agility, components of HST, were also significantly associated with muscle strength imbalances between internal rotation versus external rotation (r=−0.18, p < 0.01) and flexion versus extension (r=−0.12, p < 0.03). In terms of range of motion, a significant correlation was detected between HST and internal rotation (r=−0.19, p < 0.001). Both the total and component HST scores were positively correlated with pre-operative mHHS, WOMAC, and HOS-SSS (p < 0.001 for all r). Conclusion: The Hip Sport Test correlates with strength, range of motion, and PROs in the preoperative setting of hip arthroscopy. This test alone and in combination with other diagnostic examinations can provide valuable information about initial hip function and patient prognosis. Keywords: functional testing; hip strength; range of motion; outcomes

Category: Hip/Groin/Thigh

How Long Do Patients Take To Regain Their Baseline Strength Following Arthroscopic Treatment For Femoroacetabular Impingement?

Abstract ID# 22399
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Summary:
Treatment of FAI with hip arthroscopy requires post-operative rehabilitation. Most patients can expect to return to their baseline strength levels by one year post-operatively following diligent rehabilitation as guided by a physiotherapist and surgeon.

Data:
Objective: It has been well-established that arthroscopic treatment of femoroacetabular impingement (FAI) yields favourable outcomes compared to conservative treatment. Most patients follow a rigorous post-operative rehabilitation protocol following surgery, however it is unclear how long it takes for patients to regain their strength or exceed their baseline strength post-operatively. The objective of our study was to assess post-operative improvements in strength in patients who received arthroscopic treatment of FAI. Methods: Patients who underwent hip arthroscopy for FAI between 2019 and 2021 with a minimum one year follow-up of 5 years were included. Primary outcomes included strength measurements (flexion, extension, abduction, and internal/external rotation) as measured using a handheld dynamometer pre-operatively and at regular intervals post-operatively until the one-year post-operative time point. Secondary outcomes included International Hip Outcome Tool (iHOT-33) scores. Results: Fifty patients were evaluated with a mean age of 38.2 ± 16.4 years at the time of the surgery. The mean duration of follow-up was 1.58 ± 0.41 years. At the 6-month follow-up, 58% of patients gained flexion strength and 92% of patients gained extension strength measures. Only 58% of patients gained strength with internal/external rotation. The one year mark, over 70% of patients gained strength measures for flexion, extension, and internal and external rotation. Interestingly, only 57% of patients regained strength for abduction. All patients improved post-operatively with respect to their iHOT-33 scores (p < 0.001). Conclusions: Treatment of FAI with hip arthroscopy requires post-operative rehabilitation. Most patients can expect to return to their baseline strength levels by one year post-operatively following diligent rehabilitation as guided by a physiotherapist. Abduction strength is the slowest strength outcome to return to baseline and rehabilitation programs may need to be tailored accordingly.

Category: Hip/Groin/Thigh

Clinical Outcomes Among Individuals with Global Acetabular Retroversion who Underwent Hip Arthroscopy for FAI with Minimum 5-Year Follow-Up

Abstract ID# 23558
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Summary:
The purpose of this study was to compare patient-reported outcomes (mHHS, NAHS) and clinical threshold achievement rates (MCID, PASS, SCB) of patients with radiographic signs of global acetabular retroversion, including ischial spine, posterior wall, and crossover signs who underwent hip arthroscopy for FAI with minimum follow-up of 5 years.

Data:
OBJECTIVE: The purpose of this study was to compare functional outcomes and clinical threshold achievement rates of patients with radiographic signs of global acetabular retroversion who underwent hip arthroscopy for FAI with minimum follow-up of 5 years. METHODS: Patients were identified from a single-surgeon prospectively-collected database who underwent primary hip arthroscopy for treatment of FAI. Patients completed patient-reported outcome (PRO) surveys at both baseline and 5-year follow-up. Demographic data was collected including age, sex, BMI at time of surgery, and patient-reported symptom length. Intra-operative findings were recorded, including the Outerbridge grade, presence of...