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Summary:
The purpose of this study was to evaluate symptom duration and its relationship to patient reported outcomes and survivorship following hip arthroscopy for treatment of femoroacetabular impingement (FAI) in adolescents.

Data:

Purpose: Earlier surgical intervention for symptomatic femoroacetabular impingement (FAI) has been associated with superior outcomes in adults. There is lack of literature on optimal timing of hip arthroscopy in the adolescent population. The purpose of this study was to evaluate symptom duration and its relationship to patient reported outcomes and survivorship following hip arthroscopy for treatment of FAI in adolescents. Methods: Patients 18 years of age or younger at time of primary hip arthroscopy for FAI between January 2011 and September 2018 were included. Exclusion criteria consisted of history of previous ipsilateral hip surgery, presence of osteoarthritis or dysplasia on preoperative radiographs, previous hip fracture, or history of slipped capital femoral epiphysis or Legg-Calvé-Perthes disease. Symptom duration was categorized as less than or equal to 12 months or 0-6 months, >6-12 months, >12-24 months, and >24 months. Minimum 2-year patient-reported outcomes (modified Harris Hip Score (mHHS), Hip Outcome Score (HOS)Activities of Daily Living (ADL), HOS-Sport Scale (SSS), Short Forms 12 (SF-12)), minimum clinically significant difference (MCID) and patient acceptable symptomatic state (PASS) rates, and revision surgery rates, were compared based on symptom duration. Results: Two-year minimal follow-up was obtained for 111 patients (134 hips) (80%), including 74 females and 37 males with mean age of 16.4±1.1 (range: 13.0-18.0). The mean symptom duration was 17.2±15.2 months (range: 0.33-72.4). Ten patients (11 hips), 6 females (7 hips) and 4 males, required revision surgery at an average of 2.3±1.0 years (range, 0.9 to 4.3 years). At a mean follow-up of 4.8±2.2 years (range, 2 to 10 years), there were statistically significant improvements in all PROs (p<0.05 for all). There were no significant differences in the rates of revision, post-operative scores, or patient satisfaction between the 12 month and >12 month groups (p<0.05 for all). Symptom duration was treated as a continuous variable and showed no significant correlation to post-operative scores (correlation coefficient range: -0.162 to -0.078, p<0.05 for all). Conclusion: In an adolescent cohort of symptomatic FAI patients who underwent hip arthroscopy, there is no difference in patient reported outcome measures when analyzing symptom duration by arbitrary time intervals or as a continuous variable. Keywords: Adolescents; FAA; timing; onset

Category: Hip/Groin/Thigh

Hip Arthroscopy: Trends in Utilization and Cost Savings Associated with Ambulatory Surgery Centers versus Outpatient Hospitals

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Summary:
Ambulatory surgery centers (ASCs) provide significant cost savings to the U.S. healthcare system for hip arthroscopy (HA). However, utilization of ASCs for HA remains low.

Data:
Introduction: Hip arthroscopy (HA) is a minimally invasive procedure that has seen significant growth in its utilization. Ambulatory surgery centers (ASCs) have been shown to decrease costs while providing a quality of care comparable to that of outpatient hospitals (OHS); however, ASC cost savings and utilization for hip arthroscopy (HA) is unknown. This study characterizes 1) ASC utilization trends, 2) cost savings associated with ASCs for HA, and 3) effects of ASCs on patient out-of-pocket expenditures (POPE) and surgeon reimbursement (SR).

Methods: This retrospective cohort study utilized the U.S. 2013-2017 IBM MarketScan Commercial database to identify adult patients who underwent outpatient HA at OH or ASC. We identified three sub-cohorts: 1) isolated debridement, 2) femoral acetabular impingement (FAI) surgery, and 3) isolated labral repair. Immediate procedure reimbursement (IPR), POPE, and SR were calculated per patient. IPR for FAI surgery, the largest cohort, was subdivided into implant, anesthesia services, peripheral nerve block, operating room facility, SR, and other facility fees. A Cochran-Armitage Trend Test assessed ASC utilization trends over time. Multivariable modeling determined differences in IPR, POPE, and SR between ASCs and OHSs. Results: A total of 20,335 patients were identified with 3,739 in the debridement cohort, 14,583 in the FAI surgery cohort, and 2,013 in the labral repair cohort. From 2013-2017, ASC utilization for the full cohort increased by 5% but was only 32.1% in 2017; multivariable analysis found that ASCs significantly reduced IPR by $3310 (28.8%, p<0.01) and POPE by $476 (6.2%, p<0.01) with no significant reduction in SR. Analysis of cohorts revealed that increases in ASC utilization over the study period ranged from 4% in FAI surgery up to 12% in labral repair (p<0.05 for all cohorts). When IPR for FAI surgery was analyzed, ASCs saved costs on implants ($10, p<0.04). anesthesia services ($84, p<0.01), operating room facility ($940, p<0.01), and other facility fees ($2,577, p<0.01). Conclusion: This study shows that ASC utilization for HA is increasing; however, absolute utilization is still low. A potential reason for low rates of ASC utilization could be surgeon comfort with performing HA in the ASC setting due to concern about complications and long procedural times, especially for FAI surgery. However, a 2019 study on 3,821 patients found no significant differences in complication rates for HA between the OH and ASC setting. This suggests significant room for improvement in utilization of ASCs as ASCs provide significant cost savings of $3310 per HA, and the bulk of these cost savings come from facility-related fees such as operating room facility fees. Furthermore, patient out-of-pocket expenditure is less when HA is performed at an ASC although patients are not realizing the majority of cost savings. In conclusion, this study demonstrates that ASCs effectively reduce the economic burden of HA by a significant amount on a per case basis but overall ASC utilization for HA remains low.

Category: Hip/Groin/Thigh

The Impact of Hip Arthroscopy on Pregnancy-Related Decision-Making and Outcomes Among Female Patients: A Single Surgeon’s Experience

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Summary:
The aims of this study were to determine (1) how pregnancy planning affected patients’ decisions to pursue hip arthroscopy, (2) whether undergoing hip arthroscopy affected hip pain before after first pregnancy, and (3) whether hip arthroscopy was associated with any pregnancy-related complications.

Data:
Purpose: Women of reproductive age are among the most frequent recipients of hip arthroscopic procedures. Anatomical changes during pregnancy may exacerbate existing hip pathologies such as femoroacetabular impingement (FAI) and labral tears, potentially leading to greater pain and risk of pregnancy complications. However, the impact of hip pain and arthroscopy on pregnancy-related decision-making and outcomes is poorly understood. The aims of this study were to determine (1) how pregnancy planning affected patients’ decisions to pursue hip arthroscopy, (2) whether undergoing hip arthroscopy affected hip pain before and after pregnancy, and (3) whether hip arthroscopy was associated with any pregnancy-related complications.

Methods: We retrospectively studied female patients aged 18-45 years who underwent hip arthroscopy for the treatment of FAI and/or labral tears at our center from 2010-2021. Eligible subjects were administered an electronic survey that assessed obstetrical history, concerns about how their hip pain and/or the process of undergoing hip arthroscopy could affect future pregnancies, location and intensity of hip pain at various time points, and pregnancy complications. Hip pain intensity was reported on a Visual Analog Scale (VAS). Subjects also completed the modified Harris Hip Score (mHHS). Continuous variables were compared within groups with Wilcoxon signed rank test and between groups with Kruskal-Wallis test. Fisher’s exact test was used to compare categorical variables between groups. Results: A total of 86 patients completed the survey. Mean age at surgery was 32.3 ± 6.4 years, mean