Early Hip Arthroscopy for Femoroacetabular Impingement Syndrome Provides Superior Outcomes When Compared With Delaying Surgical Treatment Beyond 6 Months

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Background: There is literature on the association between chronic preoperative pain and worse outcomes among patients undergoing hip arthroscopy for femoroacetabular impingement syndrome (FAIS). However, there are few data on whether there is an optimum window that provides the best midterm surgical outcomes.

Purpose: To assess the outcomes of hip arthroscopy for FAIS according to timing of surgical intervention.

Study Design: Cohort study; Level of evidence, 3.

Methods: Patients undergoing arthroscopic intervention for FAIS with a minimum 2-year follow-up were included. All patients completed the Hip Outcome Score–Activities of Daily Living (HOS-ADL), Hip Outcome Score–Sport Specific (HOS-SS), modified Harris Hip Score (mHHS), International Hip Outcome Tool–12 (iHOT-12), and visual analog scales for pain and satisfaction. Patients were stratified by preoperative symptom duration. We compared 3 to 6 months of symptoms with other subsequent time frames (>6-12, >12-24, and >24 months). Clinically significant outcome was determined with the minimal clinically important difference and patient acceptable symptomatic state.

Results: A total of 1049 patients were included (mean ± SD: age, 32.3 ± 12.4 years; follow-up, 30.8 ± 6.7 months). Patients undergoing surgery at 3 to 6 months of symptoms had no significant differences in outcome when compared with those in the >6- to 12-month group except for the iHOT-12 ($P = .028$). Patients with symptom duration of >12 to 24 months and >24 months had worse outcomes across all measures ($P < .001$). Surgery within 3 to 6 months of symptoms was predictive for achieving the minimal clinically important difference on the HOS-ADL (odds ratio [OR], 1.81; 95% CI, 1.20-2.73) and HOS-SS (OR, 1.90; 95% CI, 1.11-3.17), as well as the patient acceptable symptomatic state on the HOS-ADL (OR, 1.85; 95% CI, 1.34-2.56) and HOS-SS (OR, 1.58; 95% CI, 1.14-2.18), when compared with the other groups. In multivariate regression analysis, symptom duration was predictive of visual analog scale for pain ($\beta = 3.10$; 95% CI, 1.56-4.63; $P < .001$) and satisfaction ($\beta = -4.16$; 95% CI, −6.14 to −2.18; $P < .001$).

Conclusion: Among patients with FAIS, surgical intervention early after the onset of symptoms (3-6 months) was associated with superior postoperative outcomes when compared with patients who underwent surgical intervention beyond this time frame. This information may help guide preoperative decision making regarding delay of surgery. These findings should be confirmed in a prospective study.

Keywords: femoroacetabular impingement syndrome; FAIS; symptom duration; surgical timing

Use of hip arthroscopy for the treatment of nonarthritic hip disorders has increased significantly over the past decade.[3,5,21] Adoption of hip arthroscopy has been enabled by improvements in surgical techniques as well as advances in the understanding of femoroacetabular impingement syndrome (FAIS). In this context, determining patient characteristics that may influence the benefit and risk profile of hip arthroscopy has become especially relevant for the purposes of patient counseling. As such, previous studies focused on assessing outcomes after hip arthroscopy as a function of factors such as patient age, sex, acuity injury, and body mass index.[2,10,17,26]

As the indications for surgical intervention for FAIS evolve, patients may inquire about the timing of surgery in reference to the duration of symptoms. Specifically, how long should patients live with symptomatic FAIS, and does symptom duration affect outcome? The role of symptom duration has been studied in other subspecialties

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of orthopaedic surgery. For instance, Rihn et al[24] demonstrated, as part of the Spine Patient Outcomes Research Trial, that patients with lumbar disc herniation whose symptoms were present for >6 months had poorer outcomes than did those with a shorter duration, regardless of treatment modality. Similarly, the same group showed that patients whose spinal stenosis symptoms lasted >12 months had worse outcomes than did those with a shorter duration, independent of operative versus nonoperative intervention.[23]

In a systematic review, Saadat et al[25] indicated that an increased duration of symptoms before hip arthroscopy for the treatment of FAIS may be associated with poor outcomes and increased risk of revision surgery. As such, the purpose of the current study is to assess the outcomes of hip arthroscopy for FAIS according to duration of symptoms utilizing modern capsular management techniques. We hypothesized that earlier intervention of symptomatic patients with FAIS would result in superior postoperative outcomes when compared with those who either delayed surgical intervention once recommended or waited to have their symptoms assessed.

METHODS

Patient Selection

The current study received institutional review board approval to prospectively record and retrospectively analyze the outcomes of patients undergoing hip preservation surgery for the treatment of FAIS by a single fellowship-trained surgeon. Inclusion criteria included all patients who underwent hip arthroscopy between January 2012 and July 2016; who had a history, physical examination, and radiographic findings consistent with FAIS; who had a minimum 2-year follow-up; and who failed nonoperative treatment measures, including physical therapy and nonsteroidal anti-inflammatory medications. Because patients were required to fail physical therapy, there were no patients with <3 months of symptom duration. Exclusion criteria included acute traumatic injury (n = 47), revision or bilateral hip arthroscopy, length of follow-up <2 years, history of congenital or pediatric deformities (developmental dysplasia of the hip, slipped capital femoral epiphysis, and Legg-Calvé-Perthes disease), and Tönnis grade >1.

Surgical Technique

The senior author's (S.J.N.) preferred surgical technique was previously described,[9,11,27] and it uses a combination of labral debridement or labral repair depending on the quality of labral tissue and the extent of detachment, femoral osteochondroplasty, acetabular rim trimming, synovectomy, and capsular plication. At the beginning of the procedure, all patients were positioned supine on a standard traction table with a padded perineal post, with the feet placed in foam-padded boots to allow for intraoperative manipulation of the operative limb. In all cases, standard anterolateral and midanterior portals were created to establish visualization of the central compartment such that any labral pathology and pincer morphology could be addressed. Once work in the central compartment was completed, a T-capsulotomy was performed to address the peripheral compartment, at which point meticulous resection of cam morphology was performed. Traction on the operative limb was released after the conclusion of cam resection, and a dynamic examination was then performed to ensure the creation of a tight seal between the femoral head and the acetabulum, as well as the absence of impingement. In all cases, capsular plication was performed to close the capsule with multiple high-strength sutures.

Radiographic Measurements

Radiographs were taken preoperatively at the time of clinic presentation and at the time of latest follow-up. All patients underwent anteroposterior[7] pelvis, false profile, and Dunn lateral views while in the supine position. Alpha angles were measured on all 3 views. For measurement of acetabular coverage, the lateral center-edge angle of Wiberg was assessed on the anteroposterior pelvis radiographs, and the anterior center-edge angle was measured with the false-profile view.[7]

Functional Outcome Evaluation

All patients completed hip-specific patient-reported outcome instruments preoperatively and at 6, 12, and 24 months postoperatively. Hip outcome instruments included the modified Harris Hip Score (mHHS),[4] Hip Outcome Score–Activities of Daily Living (HOS-ADL),[19] and Hip Outcome Score–Sport Specific (HOS-SS).[18] Patients were also provided a visual analog scale (VAS) for pain and satisfaction. Following completion of hip-specific outcome instruments, differences in pre- and postoperative scores were calculated, and clinically significant outcome improvement was determined with the minimal clinically important difference (MCID) and patient acceptable symptom state (PASS) as established in the literature.[22] MCID standards were set to 8 for the mHHS, 9 for the HOS-ADL, and 6 for the HOS-SS.[19] PASS threshold scores were set to

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74 for the mHHS, 87 for the HOS-ADL, and 75 for the HOS-SS.[6]

Statistical Analysis

Categories for time of preoperative pain were created from the initial onset of pain until the day of surgery (0-3, >3-6, >6-12, >12-24, and >24 months). Continuous variables were presented as means with SDs, 95% CIs, and ranges when appropriate. Categorical variables were presented as frequencies and percentages. Multivariate analysis of variance was performed to determine if significant relationships existed between preoperative time until surgery and postoperative patient-reported outcome scores. Analysis of variance was used to determine whether there was a relationship between pre- and postoperative radiographic parameters and time until surgery from pain onset. The 3- to 6-month category was used as the control period to compare with all other subsequent period categories. The 0- to 3-month pain period was not used to compare the other categories, as all patients underwent nonoperative treatment for at least 3 months. Binary logistic regression analyses were performed for categorical variables to determine whether preoperative time until surgery influenced the likelihood of achieving the MCID and PASS. Multivariate linear regression analysis was performed for continuous variables to determine which independent variables were most predictive for postoperative patient satisfaction and postoperative degree of patient-reported pain. Statistical significance was set at $\alpha = .05$. Statistical analysis was performed with SPSS (v 24.0.0; IBM Corp).

RESULTS

A total of 1049 (87.2%) patients were included in the final analysis (Figure 1). Of these patients, 65.9% were female. Their mean ± SD age was 32.3 ± 12.4 years; body mass index, 25.5 ± 10.6 kg/m^2; and follow-up, 30.8 ± 6.7 months (range, 24-58 months) (Table 1). Relative to preoperative baseline levels, there were statistically significant improvements in all mean hip-specific outcome instruments, as well as pain and satisfaction scores (Table 2).

Radiographic Analysis

There were no significant differences among the preoperative alpha angles in the anteroposterior or false-profile views, nor were there any significant preoperative differences in mean lateral center-edge angle or anterior center-edge angle (Table 3). However, there was a significant difference ($P = .011$) in preoperative alpha angle as measured in the Dunn lateral view. Analysis of postoperative radiographic measurements did not reveal any significant differences among the cohorts.

Timing of Hip Arthroscopy Stratification

All 1049 consecutive patients meeting criteria for the final analysis were stratified according to preoperative duration of symptoms before surgical intervention: 3 to 6 months (n = 250), 6 to 12 months (n = 265), 12 to 24 months (n = 284), and >24 months (n = 295). According to this stratification, multivariate analysis of variance indicated that patients who experienced 3 to 6 and 6 to 12 months of preoperative symptoms had significantly better postoperative HOS-ADL and mHHS outcome scores than did patients with >24 months (Table 4). Patients in the 3- to 6-month group had significantly less postoperative pain than those in the other

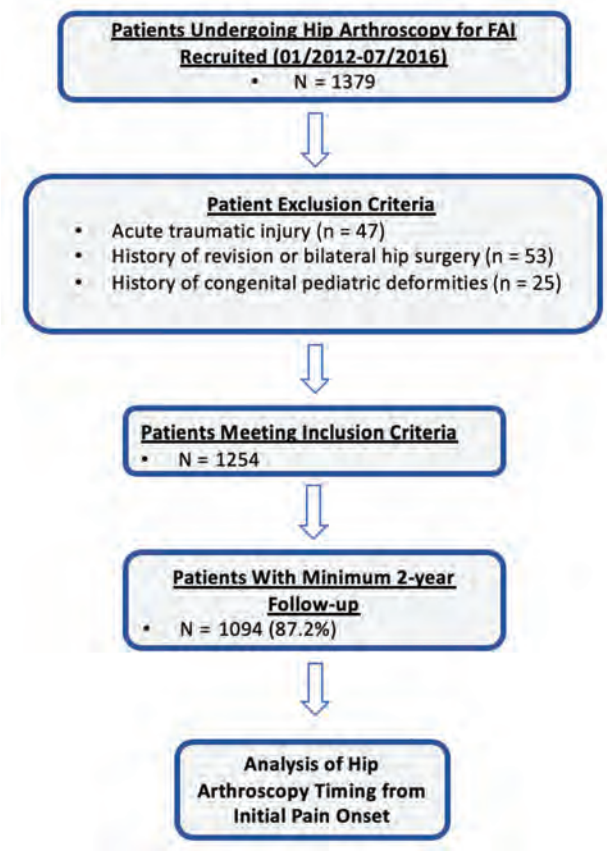

Figure 1. CONSORT (Consolidated Standards of Reporting Trials) diagram indicating total patient population meeting inclusion and exclusion criteria. FAI, femoroacetabular impingement.

TABLE 1
Patient Demographics

	n (%) or Mean ± SD
Total	1049
Age, y	32.3 ± 12.4
Sex	
Male	373 (34.1)
Female	721 (65.9)
Body mass index, kg/m^2	25.5 ± 10.6
Surgical limb	
Left	612 (56)
Right	482 (44)

TABLE 2
Pre- and Postoperative Patient-Reported Outcomes[a]

	Preoperative	Postoperative	*P* Value
HOS-ADL	65.1 ± 18.6	86.6 ± 16.0	<.001
HOS-SS	42.5 ± 22.6	74.6 ± 25.5	<.001
mHHS	57.8 ± 14.5	80.4 ± 17.1	<.001
iHOT-12	35.7 ± 17.8	72.7 ± 27.9	<.001
VAS			
Pain	6.8 ± 1.9	2.1 ± 2.3	<.001
Satisfaction	—	79.0 ± 20.4	—

[a]Values are presented as mean ± SD. HOS-ADL, Hip Outcome Score–Activities of Daily Living; HOS-SS, Hip Outcome Score–Sport Specific; iHOT-12, International Hip Outcome Tool–12; MCID, minimal clinically important difference; mHHS, modified Harris Hip Score; PASS, patient acceptable symptomatic state; VAS, visual analog scale.

groups. Furthermore, these patients had superior International Hip Outcome–12 scores compared with those with >6 to 12 months, >12 to 24 months, and >24 months of symptom duration before hip arthroscopic intervention. Finally, patients with 3 and 6 months of preoperative symptoms had significantly higher HOS-SS scores than those who had hip arthroscopy between >12 and 24 months and >24 months, as well as greater VAS satisfaction scores than those who had hip arthroscopy between >12 and 24 months and >24 months. Patients who underwent hip arthroscopy between 6 and 12 months of symptom onset did not have significant differences in outcome scores when compared with those who underwent surgery after 24 months, with the exception of the VAS satisfaction ($P = .002$).

MCID and PASS

Based on the percentage of patients who achieved the MCID, there were significant associations between a shorter length of preoperative duration of symptoms and achieving the MCID for the HOS-ADL, HOS-SS, and mHHS (Table 5). Based on the percentage of patients who achieved the PASS, there were significant associations between a shorter length of preoperative duration of symptoms and achieving the PASS for the HOS-ADL, HOS-SS, and mHHS.

Binary Logistic Regression Analysis

To determine whether the 3- to 6-month group was more likely to achieve the MCID and PASS, the variable of preoperative time until surgery was transformed into a binary variable composed of the 3- to 6-month group versus all other time groups (Table 6). This analysis revealed that patients in the 3- and 6-month group experienced a greater likelihood of achieving the MCID for the HOS-ADL (odds ratio [OR], 1.73; 95% CI, 1.21-2.97; $P = .046$) and the HOS-SS (OR, 2.09; 95% CI, 1.02-4.30; $P = .044$) than patients who waited longer to undergo surgery. This group did not have a greater likelihood of achieving the MCID for the mHHS ($P = .122$). Patients in the 3- to 6-month group also experienced a greater likelihood of achieving the PASS for the HOS-ADL (OR, 1.67; 95% CI, 1.10-2.54; $P = .016$) and the HOS-SS (OR, 1.59; 95% CI, 1.05-2.41; $P = .028$). This group did not have a greater likelihood of achieving the PASS for the mHHS ($P = .096$).

Multivariate Regression Analysis

A multivariate regression model incorporating age, body mass index, and symptom duration was constructed to determine the cumulative effect of these variables on postoperative pain and satisfaction (Table 7). When postoperative VAS pain was used as the dependent variable, length of preoperative symptoms was the strongest independent predictor of VAS pain score ($\beta = 3.10$; 95% CI, 1.56-4.63; $P < .001$). Similarly, when postoperative VAS satisfaction was the dependent variable, length of preoperative symptoms was also found to be the strongest independent predictor of satisfaction ($\beta = -4.16$; 95% CI, −6.14 to −2.18; $P < .001$).

DISCUSSION

The principal findings of the current study are as follows: (1) patients who underwent surgery after 3 to 6 months of preoperative symptoms experienced significantly better postoperative outcome scores and less postoperative pain than did patients who underwent surgery after 6, 12, and 24 months of preoperative symptoms; (2) patients who underwent surgery after 3 to 6 months of preoperative symptoms had higher odds of achieving the MCID and PASS for the HOS-ADL and HOS-SS than did patients who underwent surgery after 6 months of preoperative symptom duration.

Few studies have investigated the effect that timing of surgery and duration of symptoms have on postoperative outcomes. Aprato et al[1] conducted a consecutive case series of 525 patients undergoing hip arthroscopy for labral tears, FAIS, or chondral lesions and divided patients into 3 groups based on symptom duration: <6 months, 6 months to 3 years, and >3 years. This group found that patients had significantly better outcomes when they underwent surgery within 6 months of symptom onset and that patients who waited >3 years had inferior outcomes and a higher chance of requiring revision surgery. Although the current study included only patients with primary FAIS resolved with modern surgical techniques, the results are comparable in that patients who underwent hip arthroscopy within 3 to 6 months of preoperative symptom onset experienced superior outcomes to patients who delayed surgical intervention. Furthermore, the current study demonstrated that patients waiting as short a duration as 6 to 12 months after symptom onset had outcomes comparable with those of patients who waited >24 months to undergo surgical intervention, suggesting that the 3- to 6-month interval may be an optimal time for surgeons to operate.

A longer preoperative duration of symptoms is a known risk factor for conversion to total hip arthroplasty and inferior outcomes among patients with FAIS.[25] Even at the

TABLE 3
Analysis of Pre- and Postoperative Radiographic Measures by Timing of Hip Arthroscopy From Pain Onset[a]

	3-6 mo	>6-12 mo	>12-24 mo	>24 mo	*P* Value
Preoperative					
Alpha angle					
AP	75.9 ± 10.8	76.5 ± 11.5	77.1 ± 11.4	79.0 ± 12.6	.107
FP	64.6 ± 12.1	65.2 ± 13.1	66.2 ± 13.2	65.6 ± 12.2	.896
Dunn	65.9 ± 10.7	65.9 ± 10.9	64.6 ± 12.1	68.7 ± 12.2	**.011**
LCEA	33.0 ± 6.3	30.9 ± 5.86	31.3 ± 6.0	30.2 ± 5.7	.244
ACEA	33.1 ± 6.8	33.6 ± 6.6	32.9 ± 6.3	32.9 ± 6.9	.915
Postoperative					
Alpha angle					
AP	44.1 ± 5.7	43.7 ± 5.1	44.0 ± 5.5	44.3 ± 5.3	.789
FP	40.6 ± 4.5	40.7 ± 4.6	41.3 ± 4.8	40.6 ± 4.9	.536
Dunn	37.7 ± 3.9	37.9 ± 3.9	38.3 ± 4.8	38.3 ± 4.2	.631
LCEA	27.8 ± 5.3	28.9 ± 5.9	28.6 ± 5.5	27.9 ± 5.5	.244
ACEA	30.7 ± 5.5	30.5 ± 6.2	31.1 ± 6.2	30.6 ± 6.2	.63

[a]Values are presented as mean ± SD. Bold indicates $P < .05$. ACEA, anterior center-edge angle; AP, anteroposterior; FP, false profile; LCEA, lateral center edge angle.

TABLE 4
Multivariate Analysis of Variance
for Postoperative Patient-Reported Outcomes
When Stratified by Timing of Surgical Treatment

	Mean (95% CI)	*P* Value
HOS-ADL		
3-6 mo	89.9 (87.5-92.4)	—
>6-12 mo	88.1 (85.7-90.4)	.28
>12-24 mo	87.5 (85.3-89.7)	.14
>24 mo	84.0 (82.1-85.9)	**<.001**
HOS-SS		
3-6 mo	80.7 (74.1-87.3)	—
>6-12 mo	74.0 (69.2-78.8)	.12
>12-24 mo	72.2 (67.6-76.9)	**.039**
>24 mo	66.7 (62.8-70.6)	**<.001**
mHHS		
3-6 mo	84.3 (81.7-86.9)	—
>6-12 mo	82.9 (80.4-85.4)	.44
>12-24 mo	80.9 (78.5-83.2)	.057
>24 mo	77.7 (75.6-81.6)	**<.001**
iHOT-12		
3-6 mo	78.9 (72.2-85.7)	—
>6-12 mo	69.6 (64.7-74.5)	**.028**
>12-24 mo	70.4 (65.6-75.1)	**.041**
>24 mo	62.5 (58.5-66.4)	**<.001**
VAS pain		
3-6 mo	1.32 (0.75-1.89)	—
>6-12 mo	2.04 (1.62-2.45)	**.045**
>12-24 mo	2.33 (1.92-2.73)	**.004**
>24 mo	2.56 (2.23-2.90)	**<.001**
VAS satisfaction		
3-6 mo	85.4 (81.4-89.3)	—
>6-12 mo	83.3 (79.5-87.1)	.46
>12-24 mo	79.3 (75.7-83.0)	**.029**
>24 mo	75.3 (72.2-79.4)	**<.001**

[a]Bold indicates $P < .05$. HOS-ADL, Hip Outcome Score–Activities of Daily Living; HOS-SS, Hip Outcome Score–Sport Specific; iHOT-12, International Hip Outcome Tool–12; MCID, minimal clinically important difference; mHHS, modified Harris Hip Score; PASS, patient acceptable symptomatic state; VAS, visual analog scale.

TABLE 5
MCID and PASS Rates
Stratified by Hip Arthroscopy Timing[a]

	3-6 mo	>6-12 mo	>12-24 mo	>24 mo
MCID				
HOS-ADL	81.3	77.8	75.4	64.6
HOS-SS	89.8	85.7	81.0	77.4
mHHS	85.9	83.4	83.1	72.2
PASS				
HOS-ADL	72.8	67.8	65.0	55.1
HOS-SS	69.2	62.4	62.6	53.1
mHHS	77.6	74.6	71.7	65.2

[a]Values are presented as percentages. Each row, $P < .001$. HOS-ADL, Hip Outcome Score–Activities of Daily Living; HOS-SS, Hip Outcome Score–Sport Specific; MCID, minimal clinically important difference; mHHS, modified Harris Hip Score; PASS, patient acceptable symptomatic state.

professional athlete level, symptom duration has been demonstrated to correlate with career length and the number of years played after hip arthroscopy,[20] suggesting a beneficial influence for early arthroscopic intervention. The current study identified an optimal interval for surgical intervention (3-6 months after symptom onset) in a mixed patient population consisting of athletes and nonathletes of all ages. It is plausible that the differences in postoperative outcomes observed in this large patient population are partly due to contributions from the negative association with symptom duration, as it is known that the severity and chronicity of FAIS—attributed to the effects of femoral cam morphology in particular—may lead to inferior outcomes. As the timing of hip arthroscopy is delayed, repetitive edge loading may lead to secondary effects, such as intrasubstance degeneration, labral hypertrophy and symptomatic tear formation with adjacent propagation, and worsening chondrolabral delamination,[16]

TABLE 6
Binary Logistic Regression Analysis for Time Until Surgery and MCID/PASS Rates[a]

	Odds Ratio (95% CI)	*P* Value
MCID		
HOS-ADL		**.005**
3-6 mo	1.81 (1.20-2.73)	
Other	Reference	
HOS-SS		**.018**
3-6 mo	1.90 (1.11-3.17)	
Other	Reference	
mHHS		.17
3-6 mo	1.39 (0.87-2.22)	
Other	Reference	
PASS		
HOS-ADL		**<.001**
3-6 mo	1.85 (1.34-2.56)	
Other	Reference	
HOS-SS		**.006**
3-6 mo	1.58 (1.14-2.18)	
Other	Reference	
mHHS		.79
3-6 mo	1.04 (0.77-1.42)	
Other	Reference	

[a]Bold indicates $P < .05$. HOS-ADL, Hip Outcome Score–Activities of Daily Living; HOS-SS, Hip Outcome Score–Sport Specific; MCID, minimal clinically important difference; mHHS, modified Harris Hip Score; PASS, patient acceptable symptomatic state.

which may explain the association between timing of hip arthroscopy and postoperative outcomes.

Furthermore, when surgical intervention occurs within this 3- to 6-month window, patients are more likely to achieve the MCID and PASS for the HOS-ADL and HOS-SS. Interestingly, these patients are no more likely than patients who undergo hip arthroscopy after 6 months of symptom duration to achieve the MCID and PASS for the mHHS. A limitation of the mHHS is that it is associated with a high ceiling effect in certain populations.[12] As stated by Chahal et al,[6] the presence of a ceiling effect may result in an overestimation of patients achieving the PASS for the mHHS, which could be the case for the mHHS MCID as well. It is also possible that patients who undergo early surgical intervention start at a higher level of function, as they have not been subjected to impingement and compensatory forces for as long as the other groups; therefore, the overall change in mHHS score is similar to those of the other groups.

Evidence in the literature highlights barriers to orthopaedic care and delays in appropriate treatment owing to insurance delay or denial of coverage,[8,13-15,28] which can lead to worse outcomes. The results of this study suggest that early referral to a hip arthroscopist is important to avoid chronic FAIS and higher costs to insurance providers long term. Furthermore, orthopaedic providers may wish to continue educating primary care providers or pursue policy changes for removing insurance referral requirements for seeking orthopaedic specialist care.

TABLE 7
Multivariate Regression Analysis for Age, BMI, and Time Until Surgery With Pain and Satisfaction[a]

VAS	β	95% CI	*P* Value
Pain			
Age	0.16	0.36 to 0.29	**.012**
BMI	0.49	0.16 to 0.82	**.03**
Time until surgery	3.10	1.56 to 4.63	**<.001**
Satisfaction			
Age	–0.07	–0.23 to 0.09	.4
BMI	–0.21	–0.63 to 9.21	.33
Time until surgery	–4.16	–6.14 to –2.18	**<.001**

[a]Bold indicates $P < .05$. BMI, body mass index; VAS, visual analog scale.

Limitations

The current study is subject to several limitations. First, because the study was retrospective and included only patients who came to surgery, it is subject to possible selection bias, as patients who improved over time and did not undergo surgery would been excluded. Therefore, prospective study including patients who did and did not have surgery is needed to confirm these findings. Second, the current study analyzed patient data from a single fellowship-trained surgeon from 1 institution. However, the patient population is diverse, and this surgeon utilizes capsular plication in all operations, making this patient population a unique sample to study and adding value to the findings. Third, the current study used symptom duration broadly, which may have encompassed many definitions, including pain, functional limitations, clicking, and weakness. Future studies may focus on separating these symptoms to determine whether an optimal operative window differs for patients with different symptoms. Finally, the current study was retrospective, and patient-reported outcomes are subject to recall bias; however, our institution provides a short window within which patient surveys remain available to be completed, which ultimately limits this bias.

CONCLUSION

For patients with FAIS, surgical intervention early after the onset of symptoms (3-6 months) is associated with superior postoperative outcomes when compared with patients who underwent surgical intervention beyond this time frame. This information may help guide preoperative decision making on behalf of hip arthroscopists, and patients who are considering delaying intervention should be made aware of such risks.

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