Does Duration of Symptoms Affect Outcomes After Hip Arthroscopy: A Systematic Review

D. KIM[1], M. LEE[2], J. OWENS[3], S. GILLINOV[1], R. MAHATME[4], S. ABU[1], A. JIMENEZ[1]

1. Department of Orthopaedics and Rehabilitation, Yale School of Medicine, New Haven, CT, 06519
2. Medical College of Wisconsin, Milwaukee, WI, 52336
3. Keck School of Medicine of the University of Southern California, Los Angeles, CA, 90033
4. University of Connecticut School of Medicine, Farmington, CT, 06032

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INTRODUCTION

There is a paucity of aggregate literature on the effect of the duration of symptoms before hip arthroscopy on patient outcomes.

AIM

The purpose of this study is to evaluate the effect of duration of preoperative hip pain symptoms on outcomes in patients undergoing primary hip arthroscopy for the treatment of femoroacetabular impingement syndrome (FAIS).

METHOD

A systematic review of current literature was performed with the following keywords: "hip arthroscopy," "femoroacetabular impingement," "duration," "outcomes," "symptoms," "time," "delay," "earlier" and "timing" in PubMed and Cochrane in May 2022 using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) guidelines. Study and demographic variables such as title, author, publication date, study design, demographic, number of hips, follow-up time, study period, preoperative symptom duration, indications for hip arthroscopy, patient-reported outcome scores (PROs), rates of secondary surgeries and conversion to total hip arthroplasty (THA), and clinical benefit were documented.

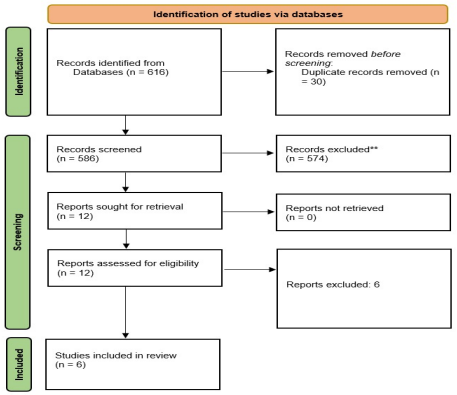

Figure 1. PRISMA Flowchart

	Aprato et al. 2012				Basques et al. 2019			Jimenez et al 2021			Kunze et al. 2019					Kunze et al. 2020		
Preoperative Duration of Symptoms (n)	<6 months	6 months - 3 years	> 3 years	P-value	<2 years	≥ 2 years	p-value	≤ 1 year	>1 year	P-value	3-6 months	6-12 months	12-24 months	> 24 months	P-value	<24 months	≥ 24 months	P-value
mHHS	79	75	69	<.05	79.1 ± 16.6	74.0 ± 18.8	<.001	91.9 ± 9.5	86.3 ± 14.1	0.051	84.3	82.9	80.9	77.7	<.001	81.3 ± 21.5	72.0 ± 24.7	0.005
HOS-ADL					86.3± 16.4	80.3± 19.9	<.001				89.9	88.1	87.5	84	<.001	88.1 ± 16.5	79.6 ± 21.9	0.001
HOS-SS					75.0 ± 25.3	65.1 ± 29.0	<.001	89.1 ± 17.2	77.2 ± 23.3	0.001	80.7	74	72.2	66.7	.039, <.001	79.1 ± 25.9	65.0 ± 32.2	<.001
VAS-Pain					2.6 ± 2.3	3.5 ± 2.6	<.001	1.5 ± 2.0	2.4 ± 2.1	0.027	1.32	2.04	2.33	2.56	.045, .004, <.001	24.8 ± 25.6	34.7 ± 31.1	0.012
NAHS								93.8 ± 8.5	85.1 ± 13.8	0.0001								
iHOT-12								87.7 ± 14.1	76.4 ± 21.1	0.011	78.9	69.6	70.4	62.5	.028,.041, <.001			
VAS-Satisfaction					82.1 ± 30.7	71.1 ± 31.6	<.001				85.4	83.3	79.3	75.3	.029, <.001	75.3 ± 31.3	69.7 ± 34.9	0.2

Table 1. Effects of Preoperative Duration of Symptoms on PROs

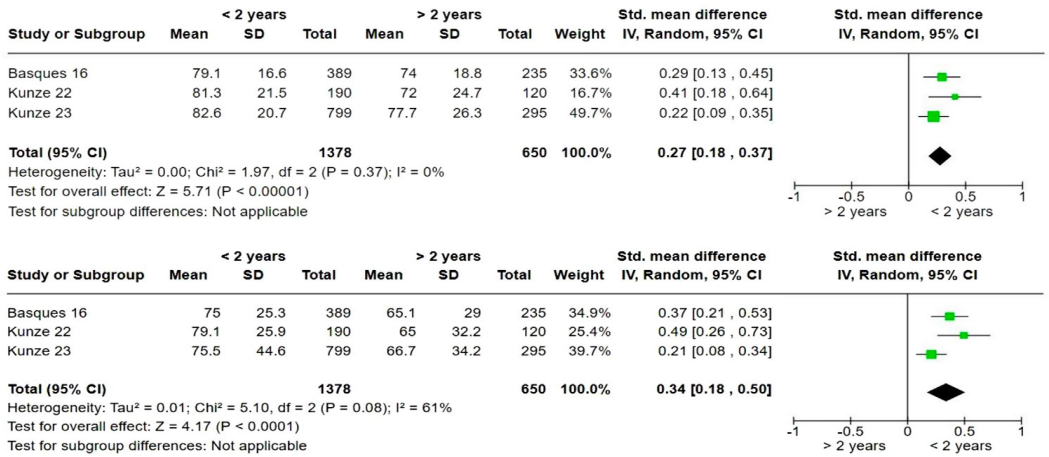

Figure 2. Forest plots for mHHS and HOS-ADL comparing >2- and < 2-year groups

RESULTS

- Six studies reporting on 3,343 hips were included in this study.
- Four studies had level III evidence and 2 studies had level IV evidence.
- Follow-ups ranged from 1.5 months to 80 months.
- Femoroacetabular impingement syndrome (FAIS) was the most common surgical indication cited in all 6 studies.
- All 6 studies reported PROs and rates of achieving psychometric thresholds.
- The most common preoperative duration evaluated was 2 years.
- Four out of 6 studies reported achieving at least one psychometric threshold at a rate of least 70% with a duration of symptoms less than 2 years.
- Rates of secondary arthroscopy: 0.9% vs 10.1% at <2-year and >2-year, respectively, and 4% vs 13% at <6 months and >3 years
- Rates of conversion to THA: 0.6% vs 6.4% in the <2-year and >2-year cohort, respectively.

CONCLUSIONS

Patients with hip pain symptoms of less than 2 years before arthroscopic treatment of FAIS have better outcomes than those patients with a longer duration of symptoms. However, significant improvements can still be expected regardless of the time between the onset of symptoms and surgery.