

Editorial Commentary: Earlier Hip Arthroscopy May Result in Improved Outcomes for Femoroacetabular Impingement Syndrome in Symptomatic Athletes: No Time Like the Present Could Mean Better Luck Next Year



Christopher L. McCrum, M.D., Editorial Board

Abstract: Hip arthroscopy is an effective tool to address hip pain and dysfunction related to femoroacetabular impingement syndrome (FAIS), and an increasing volume of evidence suggests improved outcomes of these procedures if they are done closer to the onset of symptoms. Although this same relationship is observed in competitive athletes, these patients often have competing priorities when deciding if and when to proceed with surgical management of FAIS, including the desire to complete a competitive season, scouting and scholarship considerations, and financial incentives. Despite these incentives, consideration may be given to earlier surgical management, given the improved outcome potential and high rates of return to play. However, caution should be taken, particularly in the elite athlete population, as return to play data may not paint the whole picture, and there remains a paucity of data on sport performance after hip arthroscopy for FAIS.

See related article on page 2183

Hip arthroscopy is an effective tool to address hip pain and dysfunction related to femoroacetabular impingement syndrome (FAIS).¹ However, the degree of improvement after these procedures increases substantially when used in the most indicated fashion, with better outcomes in younger patients, males, body mass index <24.5 kg/m², no degenerative changes, and pain relief with preoperative injections.² Along those lines, there is a growing body of literature that suggests that surgical outcomes of hip arthroscopy are superior with shorter preoperative symptom duration.³⁻⁸

In this issue, Jimenez, Monahan, Owens, Maldonado, Saks, Curley, Lall, and Domb.⁹ have noted improved surgical outcomes following hip arthroscopy for

femoroacetabular impingement syndrome with surgery within 1 year of symptom onset, compared with those with longer symptom durations, for the unique population of competitive athletes, in their article “Competitive Athletes Undergoing Hip Arthroscopy With Duration of Symptoms Less Than One Year Demonstrated Superior Postoperative Outcome Scores But Similar Rates of Achieving Psychometric Threshold Compared to Competitive Athletes Who Underwent Hip Arthroscopy With Symptoms For More Than One Year.” The authors are to be commended for carefully evaluating their findings at a high-volume hip arthroscopy center through the lens of the competitive athlete. The finding that competitive athletes also have superior outcomes with shorter preoperative symptom duration is consistent with what has been previously published in the athletic population.¹⁰ While the reason that patients have poorer outcomes following hip arthroscopy with symptoms that have been present for a greater amount of time, patients with long-standing symptoms have lower preoperative patient-reported outcome measures⁹ and increased symptoms duration is associated with a higher prevalence of chondral

The author reports no conflicts of interest in the authorship and publication of this article. Full ICMJE author disclosure forms are available for this article online, as [supplementary material](#).

Received January 10, 2022; accepted January 19, 2022.

© 2022 by the Arthroscopy Association of North America
0749-8063/2290/\$36.00

<https://doi.org/10.1016/j.arthro.2022.01.029>

defects,⁶ while chronic hip pain is associated with negative physical and mental well-being in athletes.¹¹ For these reasons, prompt diagnosis and intervention are critical to achieve the optimal outcome for this uniquely high-demand patient population.

Unlike the sedentary population, competitive athletes often have additional considerations during the surgical decision-making process that may complicate the simplicity of a “sooner may be better” mantra for hip arthroscopy surgery. An athlete may have a preference to postpone surgery to a more ideal time, in order to attempt to complete a competitive season. In addition to the drive to compete, professional athletes may have significant financial incentives to postpone procedures to the off-season, in order to achieve particular incentives or earn a new contract. Furthermore, professional athletic career length can leave a large opportunity cost for missing time following surgery. Collegiate athletes, also including those aspiring to advance to a higher level in competition, often have additional priorities, including the motivation to participate in recruitment events, which may not even fall within the traditional season of competition. As some authors have argued that surgical outcomes are worsened when surgery is performed 6 months after symptom onset,^{6,8} shared decision-making discussions with competitive athletes must include an understanding of the risk and benefit of postponing a surgery to a competitively advantageous time, particularly since the drop between elite and excellent sport performance can result from only a small decrease in outcome.

While return to sport rates are promising, and surgical outcomes do appear to be improved with early surgical management over surgical management with more chronic symptom duration, the overall return to sport rate does not paint the entire picture, particularly in elite athletes. It is important to differentiate between competitive amateur and recreational athletes versus elite and professional athletes. Jimenez et al. investigated this unique population as well; professional and elite athletes return to sport at the same or a higher level more frequently than recreational and lower-level competitive athletes, and that 93.8% of professional or collegiate athletes returned if their symptom duration was <1 year, while 84% returned with >1 year of symptoms, although the study was not powered for this particular comparison. This is also substantially higher than the 72.9% return to sport rate of the full cohort.⁹ Return to sport after hip arthroscopy in professional athletes is quite high, with 61-91% of professional football players,¹²⁻¹⁷ 82-95% of professional baseball players,^{12-14,17,18} 81-87% of professional basketball players, and 90-96% of professional hockey players returned to sports at a professional level.^{12-14,17} Similarly, NCAA Division one athletes return to sports at the same, or higher, nearly 90% of the time after hip arthroscopy.¹⁹

One may consider why high-level athletes return at such higher levels than lower-level competitive athletes. To speculate, it could be any number of factors. Perhaps these athletes have higher motivation, due to competitive drive or for financial rewards, or perhaps elite athletes have better access to care, leading to prompt diagnosis and surgery and avoiding lengthy waits for evaluation by a hip arthroscopy surgeon.²⁰ However, despite strong evidence on the ability of hip arthroscopy to improve patient-reported outcomes and return competitive athletes reliably to sports,²¹ particularly at an elite level, there remains a paucity of data on what many athletes care about most: athletic performance and longevity following hip arthroscopy for FAIS.^{22,23} Despite the improved patient-reported outcomes, performance statistics and participation were decreased compared to preoperative baselines nearly across the board in this elite category of athletes, following hip arthroscopy for FAIS.^{12,13} Furthermore, even return to play data do not always paint the entire picture, as the literature is known to be quite vague as to what exactly fulfills return to play at the same or higher-level criteria.²² For instance, imagine an athlete, coming off an MVP season who has performed at the highest level in her sport, who after surgery, is able only to play as a reserve player, or even in a lower professional division. While still at the same “professional” level, it would be difficult to argue these situations would be the same or higher level of performance as before surgery/symptom onset. Hence, it is wise to proceed with caution when discussing outcome expectations with patients, in order to ensure we speak the same “language” as athletes. The literature suggests that there is a 1 in 4 chance an athlete may not return to the expected level of play, most commonly due to pain or fear of reinjury and reoperation.²¹ It is possible that while elite athletes may be motivated to return to sport, these same factors may influence performance, so future studies may consider the addition of performance metrics in reporting on competitive or elite athletes.²⁴ As outcome measures favor hip arthroscopy with shorter symptom duration, an appropriately powered investigation incorporating performance measures as well may capture differences in symptom duration with regard to outcome in this elite population.

In summary, it behooves the clinician caring for competitive athletes to quickly and accurately diagnose FAIS, with strong consideration for timely referral to a hip arthroscopist, as surgical outcomes for FAIS are superior with shorter symptom duration. However, caution is warranted in interpreting these outcomes concerning athletic performance once back in the game.

References

1. Griffin DR, Dickenson EJ, Wall PDH, et al. Hip arthroscopy versus best conservative care for the treatment of

- femoroacetabular impingement syndrome (UK FASHIoN): A multicentre randomised controlled trial. *Lancet* 2018;391:2225-2235.
2. Sogbein OA, Shah A, Kay J, et al. Predictors of outcomes after hip arthroscopic surgery for femoroacetabular impingement: A systematic review. *Orthop J Sports Med* 2019;7:2325967119848982.
 3. Kunze KN, Nwachukwu BU, Beck EC, et al. Preoperative duration of symptoms is associated with outcomes 5 years after hip arthroscopy for femoroacetabular impingement syndrome. *Arthroscopy* 2020;36:1022-1029.
 4. Basques BA, Waterman BR, Ukwuani G, et al. Preoperative symptom duration is associated with outcomes after hip arthroscopy. *Am J Sports Med* 2019;47:131-137.
 5. Domb BG, Martin TJ, Gui C, Chandrasekaran S, Suarez-Ahedo C, Lodhia P. Predictors of clinical outcomes after hip arthroscopy: A prospective analysis of 1038 patients with 2-year follow-up. *Am J Sports Med* 2018;46:1324-1330.
 6. Claßen T, Körsmeier K, Kamminga M, et al. Is early treatment of cam-type femoroacetabular impingement the key to avoiding associated full thickness isolated chondral defects? *Knee Surg Sports Traumatol Arthrosc* 2016;24:2332-2337.
 7. Dierckman BD, Ni J, Hohn EA, Domb BG. Does duration of symptoms affect clinical outcome after hip arthroscopy for labral tears? Analysis of prospectively collected outcomes with minimum 2-year follow-up. *J Hip Preserv Surg* 2017;4:308-317.
 8. Aprato A, Jayasekera N, Villar R. Timing in hip arthroscopy: Does surgical timing change clinical results? *Int Orthop* 2012;36:2231-2234.
 9. Jimenez AE, Monahan PF, Owens JS, et al. Competitive athletes undergoing hip arthroscopy with duration of symptoms less than one year demonstrated superior postoperative outcome scores but similar rates of achieving psychometric thresholds compared to competitive athletes who underwent hip arthroscopy with symptoms for more than one year. *Arthroscopy* 2022;38:2183-2191.
 10. Memon M, Kay J, Hache P, et al. Athletes experience a high rate of return to sport following hip arthroscopy. *Knee Surg Sports Traumatol Arthrosc* 2019;27:3066-3104.
 11. Filan D, Carton P. Chronic hip injury has a negative emotional impact on the male athlete with femoroacetabular impingement. *Arthroscopy* 2021;37:566-576.
 12. Schallmo MS, Fitzpatrick TH, Yancey HB, Marquez-Lara A, Luo TD, Stubbs AJ. Return-to-play and performance outcomes of professional athletes in North America after hip arthroscopy from 1999 to 2016. *Am J Sports Med* 2018;46:1959-1969.
 13. Christian RA, Lubbe RJ, Chun DS, Selley RS, Terry MA, Hsu WK. Prognosis following hip arthroscopy varies in professional athletes based on sport. *Arthroscopy* 2019;35:837-842.e1.
 14. Jack RA, Sochacki KR, Hirase T, Vickery JW, Harris JD. Performance and return to sport after hip arthroscopy for femoroacetabular impingement in professional athletes differs between sports. *Arthroscopy* 2019;35:1422-1428.
 15. Sochacki KR, Jack RA, Hirase T, et al. Performance and return to sport after femoroacetabular impingement Surgery in National Football League Players. *Orthopedics* 2019;42:e423-e429.
 16. Menge TJ, Bhatia S, McNamara SC, Briggs KK, Philippon MJ. Femoroacetabular impingement in professional football players: Return to play and predictors of career length after hip arthroscopy. *Am J Sports Med* 2017;45:1740-1744.
 17. Elwood R, El-Hakeem O, Singh Y, Shoman H, Weiss O, Khanduja V. Outcomes and rate of return to play in elite athletes following arthroscopic surgery of the hip. *Int Orthop* 2021;45:2507-2517.
 18. Frangiamore SJ, Mannava S, Briggs KK, McNamara S, Philippon MJ. Career length and performance among professional baseball players returning to play after hip arthroscopy. *Am J Sports Med* 2018;46:2588-2593.
 19. Weber AE, Nakata H, Mayer EN, et al. Return to sport after hip arthroscopy for femoroacetabular impingement syndrome in NCAA Division I Athletes: Experience at a single institution. *Orthop J Sports Med* 2020;8:2325967120918383.
 20. Petrera M, Yanez-Siller F, Whelan D, et al. Analysis of the referral pattern and wait time for hip arthroscopy in a single payer publicly funded health care system. *J Eval Clin Pract* 2020;26:81-85.
 21. Annin S, Lall AC, Yelton MJ, et al. Patient-reported outcomes in athletes following hip arthroscopy for femoroacetabular impingement with subanalysis on return to sport and performance level: A systematic review. *Arthroscopy* 2021;37:2657-2676.
 22. Chona DV, Bonano JC, Ayeni OR, Safran MR. Definitions of return to sport after hip arthroscopy: Are we speaking the same language and are we measuring the right outcome? *Orthop J Sports Med* 2020;8:2325967120952990.
 23. Reiman MP, Peters S, Sylvain J, Hagymasi S, Mather RC, Goode AP. Femoroacetabular impingement surgery allows 74% of athletes to return to the same competitive level of sports participation but their level of performance remains unreported: A systematic review with meta-analysis. *Br J Sports Med* 2018;52:972-981.
 24. Zuke WA, Agarwalla A, Go B, et al. The lack of standardized outcome measures following lower extremity injury in elite soccer: a systematic review. *Knee Surg Sports Traumatol Arthrosc* 2018;26:3109-3117.