

Return-to-Sports criteria used by professional team physicians in elite athletes after hip arthroscopy – A qualitative study

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Introduction

Hip arthroscopy (HA) offers excellent outcomes in athletes with significant improvement in patient-reported outcomes (PROs) and return to sports (RTS) rates of >80% [1, 2]. Despite an abundance of published literature, there is still a lack of definite and conclusive guidelines and criteria for return-to-sport (RTS) after HA. Previous qualitative studies have tried to identify and define RTS criteria after HA; however, there has yet to be a study investigating professional team physicians. The purpose of this study was to explore currently utilized readiness to RTS criteria after HA was used in elite athletes to gain novel insights into the RTS decision-making process of professional team physicians. The authors hypothesized that a wide variability of measures and criteria used to determine RTS after HA exists even among this group of highly specialized physicians.

Methods

15 qualitative semi-structured interviews with professional team physicians (age in years: 54,78±9,32; years in practice: 20,89±10,05) were conducted by a single trained interviewer (XX). 14 of the 15 surgeons treated professional athletes, with the majority being team physicians of NHL (National Hockey League), NBA (National Basketball Association), MLS (Major League Soccer), MLB (Major League Baseball), or National Skiing teams. One of the team physicians was exclusively involved in the treatment and care of collegiate-level athletes. The interviews were used to identify team physician concepts and themes regarding the criteria used to determine RTS after HA. Themes and sub-themes were identified using a general inductive analysis and a coding process. A hierarchical approach in coding helped to link themes.

Results

Four key themes were identified from the interviews that seem to influence the return to sports decision: subjective findings, objective findings, timeframe after surgery, and informative feedback from team members. Within each major theme, several minor subordinate themes were included.

The most important RTS criteria were muscle strength (“I do. Again, abductor strength compared to the contralateral side”), followed by absence of pain (“I think, of course, you know, standard range of motion and—but I think the most important with the hip would be kind of the absence of pain.”), satisfactory functional testing (“After hip, there is also a series of testing. Hop is one of them. Side to side lateral movement with a ladder is the other one.”), pain-free return to sporting movement (“Hip arthroscopy would be pain-free drill skills and play at a lower level. I guess. That would be my determination of return to NHL level.”), psychological readiness (“We don't typically use a sports psychologist unless an athlete is struggling with return to play issues.”), time since the HA surgery (“I would also imagine a four-month standpoint. I can't remember somebody getting back before that.”, “After hip arthroscopy, really, the ones that we wait longer than four months are the young female athletes who have a higher tendency to get concomitant injuries of the ACL in the same leg if they return too soon.”), clinical joint stability and allied team support (“And I have to—I obviously am naive if I don't think that is not influenced by coaches, teammates, family, financial pressures, stage of their career, stage of the season, etc. There's a whole host of factors that can affect that, but I try to leave it—I try to reduce those extraneous forces as much as I can.”, “Yeah, we have a whole team of sports scientists and athletic trainers who watch our athletes every day and then give us information, so we use all their input.”).

Discussion

There exists substantial variability in the literature regarding the criteria used to define a successful return to sport after HA. In our study, participants frequently mentioned muscle strength as being the most important RTS criterion. In the current literature, the most commonly reported item for RTP criteria is time after HA surgery [3]. However, the question of RTS timing and decision-making differs between studies, and there is no consensus on the optimal methods of evaluating a patient's readiness to return to sport after undergoing HA. Through semi-structured interviews, concepts and themes can be identified which affect the RTS process. As shown previously for RTS after anterior cruciate ligament reconstruction (ACLR), a qualitative approach can be helpful to further improve the understanding of the choice of RTS criteria [4]. Our results indicate that even among professional team physicians, there is a great inconsistency and variance regarding RTS criteria. Although elite team physicians can use extensive infrastructure and have almost unlimited resources with access to all kinds of medical personnel, specialized equipment, experts, and all sorts of facilities, the RTS criteria after HA are still very subjective. We therefore need to define concise criteria similar to RTS after ACLR to reduce the risk of re-injury. The results of the current study show that professional team physicians consider objective findings, subjective findings, timeframe after surgery, and informative feedback from team members as the main determinants of RTS. However, specific tools, tests, or statements to define each of these parameters could not be identified. There was no consistent set of assessments used for the RTS after HA.

Significance/Clinical Relevance

This study identified several main themes that have the most influence on RTS decision after HA. Besides objective findings like muscle strength, physical examination and functional testing, there are subjective findings like absence of pain as well as time after surgery and informative feedback of the medical team members that influence decision making. However, we showed that even among specialized professional team physicians, the main criteria to RTS in these categories were not consistent which necessitates the further development of specific RTS guidelines.

References

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