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**Editorial** 

# Refining Indications for Hip Arthroscopy in Moderate Osteoarthritis

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Hip arthroscopy has become an indispensable tool in joint-preserving hip surgery, particularly for managing femoroacetabular impingement (FAI) in young, active patients. However, its role in patients with moderate osteoarthritis remains controversial. The article titled "Early Outcomes of Hip Arthroscopy in Tönnis Grade 2 Osteoarthritis Patients" by Erdoğan et al.[1], published in the previous issue of Sports Traumatology & Arthroscopy, addresses this clinically relevant but underexplored area. The study focuses on patients with moderate osteoarthritis treated with hip arthroscopy which is an area that requires a more robust evidence-based framework for selection. While hip arthroscopy techniques have advanced significantly in recent years, corresponding changes in clinical indications have lagged behind. In patients with moderate to severe osteoarthritis, the effectiveness of arthroscopy in relieving symptoms and delaying the need for total hip arthroplasty (THA) is unclear, with current literature offering heterogeneous and often low-quality evidence, limiting the ability to draw firm conclusions. [2]

Over the past three decades, hip arthroscopy has undergone rapid evolution into a crucial tool for joint preservation. Its use has gradually expanded from young, athletic individuals with mechanical issues to older patients presenting both mechanical symptoms and arthritic changes. Naturally, the outcomes of arthroscopy

in a young patient with mechanical symptoms alone are expected to differ from those in an older patient with arthritic degeneration. Consequently, comparing outcomes between patients with and without osteoarthritis may not yield clinically meaningful results. Studies evaluating whether arthroscopy or even conservative management can delay the need for THA in arthritic patients would likely offer more valuable insights.

Erdoğan et al.<sup>[1]</sup> contribute to this evolving discussion by reporting significant postoperative improvements in functional scores (mHHS, NAHS, HOS-ADL/SS, HOOS) and reductions in VAS scores among patients with Tönnis grade 2 osteoarthritis. Their findings align with earlier reports. For instance, Daivajna et al., from Richard Villar's group, reported that among 77 patients with Tönnis grade 2 or higher grade OA, 56% experienced improved outcomes for at least two years after undergoing arthroscopy. <sup>[4]</sup> Similarly, Haviv et al. reviewed 564 patients with osteoarthritis treated with hip arthroscopy and found that only 16% required THA within a 7-year follow-up period.

Despite such promising data, longer-term studies and meta-analyses caution against overestimating the role of arthroscopy. A recent meta-analysis comparing operative and non-operative management of FAI at long-term follow-up showed a 32% reduction in radiographic OA progression following



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arthroscopy, but no significant difference in the eventual need for THA or hip resurfacing. [6] This meta-analysis underscores that, even in patients managed conservatively, the timing of arthroplasty remains largely unchanged. While radiographic findings may improve, arthroscopy does not appear to delay the eventual need for THA. Moreover, when arthroscopy is performed on patients who are likely to undergo arthroplasty soon, complication rates increase significantly compared to those who are conservatively managed. Guo and Duo's metaanalysis of 11 matched-control studies examining the effects of prior arthroscopy on subsequent arthroplasty outcomes found no differences in intraoperative or functional outcomes. However, patients who had previously undergone arthroscopy were at significantly higher risk for postoperative complications, including dislocations, revisions, and reoperations.[7] The most recent meta-analysis by Arakawa et al. further reinforces these findings.[8]

These results raise a critical clinical question: How can we better identify patients with moderate OA who might still benefit from arthroscopy, without inadvertently exposing them to future surgical risks? Relying solely on Tönnis' grading may be insufficient. Advanced MRI-based classification systems may offer more precise predictive value. Features such as circumferential cartilage damage exceeding 60 degrees, acetabular rim cysts, and saber-tooth osteophytes, as identified by Hanke et al.<sup>[9]</sup>, have been associated with poorer outcomes after arthroscopy and should be considered in patient selection.

In conclusion, Erdoğan et al.<sup>[1]</sup> present valuable data suggesting that hip arthroscopy may offer symptomatic relief in select patients with Tönnis grade 2 osteoarthritis. While their study is retrospective and limited by sample size and the absence of a control group, it represents a significant contribution to a nuanced clinical issue. Further prospective studies incorporating advanced imaging criteria are essential to develop robust algorithms that guide surgical decision-making in this challenging subset of patients. The future of hip preservation surgery lies not only in technical refinement but also in sharper, evidence-based patient selection.<sup>[10]</sup>

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