

## Editorial Commentary: Hip Arthroscopy—Safe, Effective, and Still Improving in Older Nonarthritic Patients



**Abstract:** Hip arthroscopy in nonarthritic patients 60 or older has been increasingly reported in short-term outcome studies. The rise in hip-preservation operations in this population has been associated with encouraging improvements in patient-reported outcome scores. More stringent radiographic indications (at least 2 mm of joint space and Tönnis osteoarthritis grade  $\leq 1$ ) during patient selection have also yielded better outcomes. Delayed gadolinium-enhanced magnetic resonance imaging of cartilage is another tool that should be considered during preoperative planning. With improvements in preoperative workup, imaging, and surgical technique, we anticipate that hip arthroscopy will continue to show positive results in an older patient population when carefully selected.

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Advancements in hip arthroscopy over the past decade have led to its increased use, including in the older patient population. In their article “Clinical Outcomes of Hip Arthroscopy in Patients 60 or Older: A Minimum of 2-Year Follow-up,” Capogna et al.<sup>1</sup> address the important question of whether hip arthroscopy is a safe and reliable treatment option for nonarthritic patients 60 or older. In addition, 88% of their patients reported significant improvements in their condition and patient satisfaction, which shows that hip arthroscopy is a promising treatment option for this patient population.

The current literature shows that hip arthroscopy may be beneficial for well-selected older patients with nonarthritic hip pathology. In a large cross-sectional study between 2007 and 2011, Sing et al.<sup>2</sup> reported a 200% increase in patients older than 60 who were treated with hip arthroscopy. In these patients, there was an 84% survivorship rate at 2-year follow-up. Domb et al.<sup>3</sup> reported similarly encouraging outcomes with a survivorship of 83% in patients 50 or older, as well as significant improvements in all patient-reported outcomes.

Preoperative evaluation of radiographic studies is essential for developing a safe and appropriate treatment plan for older patients. Philippon et al.<sup>4</sup> found that patients with a joint space of less than 2 mm were almost 10 times more likely to undergo conversion to total hip arthroplasty. Chandrasekaran et al.<sup>5</sup> found that hips with

a Tönnis osteoarthritis grade of 2 or greater were 7.73 and 4.36 times more likely to undergo conversion to total hip arthroplasty than hips with Tönnis grade 0 and grade 1, respectively. We believe that patients 60 or older have a greater likelihood of success after hip arthroscopy when they have at least 2 mm of joint space and a Tönnis grade of 1 or lower.

Delayed gadolinium-enhanced magnetic resonance imaging of cartilage (dGEMRIC) can serve as a useful tool to further refine patient selection and subsequently improve outcomes. Our institution found that patients with a dGEMRIC index of 323 milliseconds or greater (less than one standard deviation below the cohort mean) had significantly greater improvement in patient-reported outcomes and visual analog scale scores for pain after hip arthroscopy.<sup>6</sup> For patients older than 40 with Tönnis grade 1 and patients older than 50 with Tönnis grade 0, dGEMRIC may assist in determining which patients are candidates for hip-preservation surgery.

The results cited by Capogna et al.<sup>1</sup> are exciting for the field of hip arthroscopy in an older patient population. Beyond this, we believe that the use of dGEMRIC will improve patient selection and further increase survivorship for these patients. With improvements in preoperative workup, imaging, and surgical technique, we anticipate that hip arthroscopy will continue to show positive results in well-selected older patients at longer-term follow-up.

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