

# A Critical Review

## Management and Surgical Options for Articular Defects in the Hip

Eric C. Makhni, MD, MBA<sup>a</sup>, Austin V. Stone, MD, PhD<sup>b</sup>,  
Gift C. Ukwuani, MD<sup>c</sup>, William Zuke, BS<sup>c</sup>,  
Tigran Garabekyan, MD<sup>d</sup>, Omer Mei-Dan, MD<sup>e</sup>,  
Shane J. Nho, MD, MS<sup>c,\*</sup>

### KEYWORDS

- Chondral injury • Osteochondral autologous transplantation
- Osteochondral allograft transplantation • Autologous chondrocyte transplantation
- Mosaicplasty • Viscosupplementation

### KEY POINTS

- Nonoperative treatment continues to be the mainstay of treatment for patients with articular cartilage lesions of the hip.
- There is a heterogeneity of support in the scientific literature regarding efficacy of biologic injections for cartilage disease of the hip.
- Treatment algorithms for focal cartilage disease of the hip resemble those for the knee.

### INTRODUCTION

Despite significant research and investigative efforts, the optimal management of articular cartilage injury remains a challenge in orthopedic sports medicine **Table 1**. Although much of the research in articular cartilage injuries has occurred in the knee, the recent rapid growth of the hip preservation field, has caused an increase

---

Disclosures. Nothing to disclose (E.C. Makhni, T. Garabekyan, G.C. Ukwuani, W. Zuke); Smith and Nephew: Research support (A.V. Stone); MITA: Stock or stock Options, Smith & Nephew: Paid consultant; Research support (O. Mei-Dan).

<sup>a</sup> Division of Sports Medicine, Department of Orthopedic Surgery, Henry Ford Health System, 6777 West Maple Road, 3rd Floor East, West Bloomfield, MI 48322, USA; <sup>b</sup> Department of Orthopedic Surgery, Wake Forest School of Medicine, Medical Center Boulevard, Winston-Salem, NC 27157-1070, USA; <sup>c</sup> Division of Hip Preservation Surgery, Rush University Medical Center, 1611 West Harrison Street, Chicago, IL 60612, USA; <sup>d</sup> Southern California Hip Institute, 10640 Riverside Drive, North Hollywood, CA 9160, USA; <sup>e</sup> CU Sports Medicine and Performance Center, University of Colorado, 2150 Stadium Drive, Boulder, CO 80309, USA

\* Corresponding author.

*E-mail addresses:* [shane.nho@rushortho.com](mailto:shane.nho@rushortho.com); [nho.research@rushortho.com](mailto:nho.research@rushortho.com)

<b>Grade</b>	
0	Normal cartilage
1	Softening and swelling of the cartilage
2	Partial-thickness defect with surface fissuring that does not extend to the subchondral bone and is <1.5 cm in diameter
3	Partial-thickness defect with surface fissures extending to the subchondral bone or >1.5 cm in diameter
4	Full-thickness cartilage defect

*Data from Outerbridge RE. The etiology of chondromalacia patellae. J Bone Joint Surg Br 1961;43-B:752-7.*

in similar emphasis in the hip. The difficulty in treating chondral injury is a direct consequence of the tissue's limited repair capacity. When present in patients undergoing hip arthroscopy for femoroacetabular impingement (FAI) or hip dysplasia, these chondral injuries may be associated with significant pain and decreased patient-reported outcome (PRO) scores when compared with patients without these lesions.<sup>1</sup> Therefore, knowledge of the wide variety of treatment options for these lesions is essential when caring for these patients. Fortunately, many common treatment strategies for articular cartilage lesions in the hip have been adopted from those previously used in the knee, at times with improved success rates due to better joint congruency. These have produced varying degrees of success.<sup>1-4</sup> The goal of this review was to provide an overview of both the nonoperative and operative treatment options for articular cartilage lesions of the hip. The ultimate goal of this treatment is not only to mitigate pain and disability, but also to minimize progression of disease.

## **CLINICAL PRESENTATION AND DIAGNOSTIC EVALUATION**

Patients with articular cartilage lesions of the hip may present with pain and symptoms that may be vague in nature and onset. Often, there may be no discrete event or injury that can be recalled. Therefore, a thorough history and physical examination should be performed for every patient presenting with hip pain and/or disability. Pain is often a chief complaint; therefore, the pain should be described with respect to the nature and location of the pain, exacerbating activities or positions, timing of onset, and position or treatment that provides relief. It is important to identify additional medical comorbidities, patient-specific work or activity-related injuries, or predisposing factors, as these may elucidate concomitant pathologies. Certain sporting activities are known to be associated with chondral injury.<sup>5-9</sup> As with every patient presenting with hip pain or symptoms, other sources of injury must be ruled out, such as lumbo-sacral, urologic, neurologic, or surrounding mimickers that can be perceived as hip pain, such as piriformis syndrome, abductors or adductor tears, and others.

Many patients presenting with FAI have concomitant chondral injury associated with the underlying bony defect. In true pincer-type deformities, the extent of soft tissue injury may be confined to the labrum or be diffuse, causing degeneration, whereas those with CAM deformities are more prone to present with chondral delamination or shear injuries. It is our experience, though, that most patients have a mixed deformity, and as such can suffer from both types of cartilage injuries.

Download English Version:

<https://daneshyari.com/en/article/5707125>

Download Persian Version:

<https://daneshyari.com/article/5707125>

[Daneshyari.com](https://daneshyari.com)