

Arthroscopic surgery for hip impingement: It works for me

By Dean K. Matsuda, MD

A surgeon's perspective—from both sides of the scalpel

In 2003, a colleague asked if I would perform arthroscopic hip surgery on his collegiate athlete daughter. Aware of the inherent technical difficulties in hip arthroscopy, I recommended that he seek the advice of a specialist. Fortunately, my colleague found **Thomas G. Sampson, MD**, who diagnosed a condition that I had never previously known—femoroacetabular impingement (FAI)—and successfully performed arthroscopic surgery to resolve her painful symptoms.



Dean K. Matsuda, MD, performs arthroscopic hip surgery for femoroacetabular impingement. Courtesy of Kaiser Archives 2005

Realizing that this was uncharted territory for me and my group, I spent several months learning all I could about hip arthroscopy. During my first 6 weeks with Dr. Sampson and James M. Glick, MD, both wonderful mentors, I heard new terms like “cam” and “pincer” and learned much more than just how to safely place an arthroscope in a hip joint. I also learned from other specialists, including **Marc J. Philippon, MD; J. W. Thomas Byrd, MD; Marc Safran, MD;** and Reinhold Ganz, MD.

My first arthroscopic hip case was a patient with FAI. The patient, an attorney, returned not only to the courtroom but also to kickboxing. During the past 4 years, my practice has evolved from a sports medicine practice into a focused, hip arthroscopy practice; more than 90 percent of my surgical patients have FAI.

Hot topics, good matches

Both hip arthroscopy and FAI are hot topics in orthopaedics. Because FAI commonly occurs in young athletes, arthroscopy is a wonderful match. These patients want to get back in the game and expect minimally invasive surgery to be an option. Hip arthroscopy, at one time viewed as a procedure in need of an indication, has evolved, in great part because of the unique technical challenges presented in the surgical management of FAI.

FAI encompasses a variety of bony dysmorphisms that require individualized surgical variation. My typical patient is a

young adult athlete with symptomatic focal cam-pincer FAI. My surgical goals are to treat any internal labral and chondral damage and to relieve ongoing impingement by reshaping the hip joint toward normal nonimpinging anatomy.

I usually perform supine arthroscopic acetabular rim trimming and labral refixation under intermittent traction, and femoral head-neck resection osteoplasty in a semiflexed position without traction, using a two-portal technique. My workhorse portal is a modified midanterior portal. I have developed a novel way of using intermittent fluoroscopic evaluation to obtain a more precise acetabular rim reduction. Arthroscopic dynamic testing ensures that impingement is eliminated in multiple planes.

It worked for me, too!

About 18 months ago, I had arthroscopic surgery on both hips (a month apart), giving me clinical experience from both sides of the scalpel. My surgeon found significant chondral delamination; despite rim trimming, the residual exposed subchondral bone required microfracture chondroplasty. I was pleasantly surprised at the paucity of postoperative pain; my recovery from uneventful ACL reconstructive surgery was much tougher.

Although my left hip has occasional pain, I am able to resume full court basketball, and my right hip is asymptomatic. I am happy with the outcome. I do not see the residual left hip pain as a sign of surgical failure, but as support for my position that patients with FAI should be diagnosed and treated sooner rather than later.

Compared with the classic open surgical hip dislocation procedure with greater trochanteric slide or flip osteotomy, the arthroscopic equivalent offers the following advantages:

- true outpatient surgery
- minimal blood loss
- no trochanteric osteotomy-related complications
- outstanding cosmesis (many patients have difficulty understanding how so much surgery can be done through two small incisions)
- quicker rehabilitation

Patients may begin exercise bicycling 24 hours postoperative; although I urge patients to remain on crutches for 1 to 2 weeks, many walk into my office without crutches at their 1-week visit. I tell my patients to minimize impact activities like running for 12 weeks. Although some patients notice dramatic early improvement in pain, mechanical symptoms, and range of motion, others exhibit a gradual improvement over a period of 1 or even 2 years.

An exciting time

The lay media perceives hip arthroscopy (with some justification) as an inherently glamorous topic; young athletes sidelined with hip pain now have a minimally invasive option to get them back in the game. It behooves us as orthopaedic surgeons to be ready, knowledgeable not only about FAI but also about current treatment options.

Although hip arthroscopy has been around for decades, FAI and some innovative orthopaedic surgeons have transformed this into a procedure that now has a growing list of indications. We are seeing what can technically be done with these arthroscopic procedures; we need further investigation to tell us what actually benefits our patients over the long haul.

From what I've seen (and felt) from both sides of the scalpel, I believe that arthroscopic management of FAI will become the treatment standard for most patients. It won't happen overnight because the procedure is technically challenging and few training venues exist. Complications resulting from improper technique include femoral head osteonecrosis and femoral neck fractures. Underresection can leave residual impingement.

Not all FAI patients are best treated arthroscopically. An open procedure, possibly including a periacetabular osteotomy, may be more suitable for those who have severe acetabular retroversion and/or global impingement. Joint reconstructive surgery may be better for those with significant osteoarthritis. Many unanswered questions merit future investigation.

Nevertheless, I believe **Paul E. Beaulé, MD**, summed up the future quite well: "What you are doing (comprehensive arthroscopic management) is the future of hip impingement surgery." My hope is that young, athletic patients will seek early help for their hip pain and will be able to choose a truly minimally invasive option—one that just may make being benched while waiting for an early hip replacement a thing of the (recent) past.

Dean K. Matsuda, MD, is co-director of Sports Medicine and director of the Hip Arthroscopy Program in the Minimally Invasive Surgical Group of Kaiser Permanente West Los Angeles Medical Center. He is also an active board member of Orthopaedics Overseas. He can be reached at dean.k.matsuda@kp.org

AAOS Now

June 2008 Issue

<http://www.aaos.org/news/aaosnow/jun08/clinical2.asp>

6300 North River Road Rosemont, Illinois 60018-4262 Phone 847.823.7186 Fax 847.823.8125

© 1995-2010 by the American Academy of Orthopaedic Surgeons. "All Rights Reserved." This website and its contents may not be reproduced in whole or in part without written permission. "American Academy of Orthopaedic Surgeons" and its associated seal and "American Association of Orthopaedic Surgeons" and its logo are all registered U.S. trademarks and may not be used without written permission.