



**HETEROTOPIC OSSIFICATION FOLLOWING HIP ARTHROSCOPY IN A PATIENT WITH NSAID  
HYPERSENSITIVITY: A CASE REPORT**

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*Background*

A 33 year-old healthy, active male presented with chronic bilateral groin pain. The pain had greater severity in the morning but decreased throughout the day. The patient noticed the pain during hip flexion while driving his manual transmission vehicle and with activities involving hip rotation and flexion (i.e. golf). Currently these symptoms are not limiting the patient from any activities, but he has needed to modify certain activities to decrease the severity of symptoms. The patient underwent hip arthroscopy with femoroplasty and labral repair of his right hip in October of 2014 to treat femoroacetabular impingement (FAI) caused by a symptomatic cam lesion and torn labrum. In the following spring, the patient underwent the same arthroscopic surgery on his left hip after experiencing symptoms similar to his pre-operative right hip pain. Although the orthopedic surgeon usually prescribes four weeks of non-steroidal anti-inflammatory drugs (NSAIDs) to prevent the formation of heterotopic ossification (HO) after surgery, the patient could not take NSAIDs for either of his hip arthroscopies due to a known NSAID hypersensitivity. The patient experienced a urticaria reaction after taking Advil both in high school and eight years ago. However, the patient was also taking other drugs concurrently and, consequently, could not confirm a hypersensitivity to NSAIDs in either case. Five years ago, the patient took naproxen and reacted urticaria, confirming his multi-drug hypersensitivity to NSAIDs. The patient would also not undergo prophylactic radiation treatment due to radiation's associated risk of cancer development and the rarity of symptomatic heterotopic ossification (HO). The patient decided that surgical resection of HO is much more favorable than the risks and treatments for cancer. The patient had no other history of a hip pathology beyond FAI.

*Differential Diagnosis*

Heterotopic ossification, Iliopsoas tendinopathy, Degenerative joint disease, FAI (incomplete cam resection), failed healing of capsular repair.

Treatment: Upon X-ray, heterotopic ossification was seen in both hips. On the right, the HO rose superiorly and medially from the neck of the femur. On the left hip, the HO descended inferiorly and laterally from the anterior inferior iliac spine. Current treatment standards involve surgical resection of the HO. The patient has decided to hold off on surgical resection until the symptoms limit his activities. The patient will instead modify activities as needed (i.e. limit deep flexion while squatting and decrease frequency of golfing) and use therapeutic exercise to strengthen his hip musculature.

*Uniqueness*

Heterotopic ossification is one of the most common complications experienced by patients who undergo hip arthroscopy. HO develops due to post-surgical inflammatory response with the

debrided bony fragments remaining in the surrounding tissue. Patients are often administered NSAIDs after surgery to prevent the formation of HO. Among patients who do develop HO, most do not experience symptoms. Our patient presented with an uncommon condition of multi-drug NSAID hypersensitivity which prevented him from being able to take NSAIDs during his recovery. Being unable to use NSAIDs to limit the inflammatory response, put this patient at a much higher risk for developing HO. Not only did our patient develop HO, but it also appears to be the source of his current symptoms.

### *Conclusion*

Clinicians involved in the treatment of patients who undergo hip arthroscopy must be aware of the condition of NSAID hypersensitivity. If patients are unable to take NSAIDs or the alternative of radiation, the patient should be informed of their increased risk of developing HO. Safer and cheaper alternatives to prophylactic radiation need to be researched in order to reduce the risk of HO in patients who are unable or unwilling to take NSAIDs.