

Editorial Commentary: Labral Calcification in the Setting of Femoroacetabular Impingement Syndrome: The Gratification of Eradication and Treatment of the Problem



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Abstract: Acetabular labral calcifications are occasionally encountered during hip arthroscopy for labral tears and femoroacetabular impingement. Clinical outcomes after removal of this calcification and repair of labral tearing have been shown to be good. Since these are found in asymptomatic patients, the labral repair and treatment of femoroacetabular impingement seem to be more important than removal of the calcification. However, amorphous calcium deposits need to be distinguished from the more serious conditions of labral ossification or rim fractures, which require significant preoperative planning and patient counseling. Labral reconstruction or rim fixation will alter the surgical procedure and potentially the postoperative rehabilitation.

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It was during hip arthroscopy fellowship that we took a particular interest in an amorphous calcium deposit emanating from the acetabular labrum while performing labral repairs. This had similar consistency to calcific rotator cuff tendinitis. We explored this and published those findings in a study in 2014.¹ It was noted to be a female-predominant problem, with associated femoroacetabular impingement (FAI).

In the study by Soriano, Flores, Aung, Nguyen, and Zhang entitled “Treatment of Labral Calcification in the Setting of Femoroacetabular Impingement Syndrome With Arthroscopic Calcification Excision, Labral Repair and Osteoplasty Improves Outcomes,” we have a comparison study of the outcomes of treating this subset of acetabular labral calcification.² As hip surgeons, this is as close as we can get to being Dr. Pimple Popper. Although it can feel gratifying to release this

calcific debris from its entrapment, something tells me a television show is unlikely to be successful.

In this comparison study of labral tears and FAI, with and without labral calcification, we can see that the preoperative pain scores and patient-reported outcome scores are similar. This indicates the calcification in question does not seem to be particularly more aggravating than a labral tear without calcification. As well, the outcomes are equally positive, indicating this is likely a minor distraction relative to the main pathology, the labral tear, and FAI.

This study, nor others, have given us much insight into the asymptomatic calcification. We have all likely seen these on standard radiographs, and they are not always symptomatic, whether it is incidentally seen on the contralateral side or in the evaluation of peritrochanteric pain. These calcifications can contribute to pain or are more likely to be completely asymptomatic.³ The unclear pain generator combined with the insignificant differences seen in this study adds opacity to this little calcium nugget.

An important takeaway from this study is accurate identification of this subtype from other labral calcifications. The authors excluded os acetabuli, labral ossification, and rim fractures, and they provide a nice summary of the differences between these. With the type of labral calcification that is the focus of this study,

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little planning and counseling is needed. However, labral ossification and rim fractures do require significant planning and counseling.^{4,5} Labral reconstruction or rim fixation will alter your surgical procedure and potentially your postoperative rehabilitation.

This pathology may not be as serious and devastating to the hip joint of our patients, but studies such as this are important as we continue to unravel the nuances and complexities of nonarthritic hip pain. While it can be gratifying as surgeons to identify and eradicate this pathology, the patient probably appreciates the labral repair and femoroplasty even more.

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