Postarthroscopic Glenohumeral Chondrolysis (ABSTRACT)

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Background: Recent reports have noted the appearance of postarthroscopic glenohumeral chondrolysis. Although this devastating process has been identified, no cause has been directly identified.

Hypothesis: A cause of postarthroscopic glenohumeral chondrolysis will be associated with a specific factor (ie, implanted device, surgical technique, etc), and this factor can be identified by a review and comparison of cases seen in the senior author's office.

Study Design: Case series; Level of evidence, 4.

Methods: Analyze possible etiologic factors with imaging studies, demographics, history, and physical examinations of 10 patients (12 shoulders) with postarthroscopic glenohumeral chondrolysis, and then compare perisurgical information with a focused chart review and comparison with the rest of the 177 arthroscopic shoulder surgeries in the same period of time.

Results: There were 12 cases of postarthroscopic glenohumeral chondrolysis (all were the senior author's patients). Four common factors were identified, and only high-flow intra-articular pain pump catheters filled with bupivacaine and epinephrine were a new addition to years of shoulder surgery by the senior author; 177 shoulders underwent arthroscopy in the identified time frame, and only 19 shoulders, of 30 with capsular procedures, had intra-articular pain pump catheters filled with bupivacaine and epinephrine. Of these, 12 have been identified with chondrolysis.

Conclusion: Use of intra-articular pain pump catheters eluting bupivacaine with epinephrine appear highly associated with postarthroscopic glenohumeral chondrolysis.

Clinical Relevance: Intra-articular pain pump catheters, especially those eluting bupivacaine with epinephrine, should be avoided until further investigation.