

## Electrothermal Arthroscopic Capsulorrhaphy for Chronic Shoulder Instability: A Minimum Two Year Follow-up

Young Kyu Kim\*, Sumant G. Krishnan, Spero G. Karas, Marilee P, Haran BS, Thomas J. Noonan, Richard J, Hawkins

\*Dept. of Orthopedics Surgery, Gil Medical Center, Gachon Medical School  
SteadmanHawkins Sports Medicine Foundation

This paper prospectively evaluates outcomes of the first 100 patients among patients with glenohumeral instability treated with thermal capsulorrhaphy by the single senior author between 1997-1999. Eighty-six patients (86%) were available for review at two-year minimum follow-up. The monopolar radiofrequency thermal probe has been used for capsular shrinkage, and concomitant pathology (Bankart or SLAP lesions) was addressed with suture technique. Twenty patients (23%) were done prior surgery. Fifty patients (total 59) suffered from anterior instability; 23 (total 28) had an associated Bankart lesion. Eleven patients (total 13) demonstrated posterior instability; 1 had an associated reverse Bankart lesion. Eighteen patients (total 21) had multidirectional instability; 8 had an associated Bankart lesion. Seven (total 7) patients demonstrated anterior and posterior instability without an inferior component; 1 had an associated Bankart lesion. Failures were defined as recurrent instability, recalcitrant pain, intractable stiffness, and/or revision stabilization.

Thirty-three (38%) of 86 patients (total 33/100, 33%) failed the procedure. In patients having successful results, mean preoperative ASES score for anterior instability with a Bankart improved from 75 to 97 postoperatively (failure: 7/23 patients, 30%, total 26%). Mean preoperative ASES score for anterior instability without a Bankart improved from 70 to 95 postoperatively (failure: 9/27 patients, 33%, total 28%). Mean preoperative ASES score for posterior instability improved from 60 to 93 postoperatively (failure: 4/11 patients, 36%, total 31%). Mean preoperative ASES score for MDI improved from 72 to 97 postoperatively (failure: 10/18 patients, 56%, total 48%). Mean preoperative ASES score for anterior and posterior instability improved from 57 to 92 postoperatively (failure : 3/7 patients, 43%, total 43%). For clinical successes, mean patient satisfaction was 9 out of 10 points. These results sometimes suggest that ETAC may provide subjectively satisfying results despite the unacceptably high failure rate. Because of the high failure rates, we now augment the ETAC with capsular plication and/or rotator interval closure in posterior and MDI instability to improve outcomes.