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Similar results after arthroscopic and open stabilization for recurrent instability

Matching the appropriate procedure to patients pathology may optimize the results of either procedure

by Marjorie McMinn

ORTHOPEDICS TODAY, correspondent

ORLANDO, Fla.—In a prospective study comparing arthroscopic stabilization using a bioabsorbable implant and open stabilization with or without Bankart repair for recurrent traumatic anterior shoulder instability, investigators did not conclusively favor one procedure over the other.

Brian J. Cole, MD, MBA, reported on the results of the study here at the annual meeting of the Arthroscopy Association of North America. Cole, was a fellow at the University of Pittsburgh's Center for Sports Medicine at the time of the study, is now an assistant professor of orthopedic surgery and sports medicine at Rush-Presbyterian-St. Luke's Medical Center in Chicago.



Brian J. Cole reported similar results following arthroscopic or open stabilization when the procedure was appropriately matched to the pathology.

This investigation was noteworthy for several reasons: all procedures were performed by one member of the research team (Jon P. Warner, MD); an independent examiner (BJC) was blinded to which procedure was used for each patient and to which shoulder was operated on; the study provided a high level of follow-up (94%); and results showed that recurrent instability occurred in patients who returned to activity (sports or work) early, regardless of which procedure had been used.

Follow-up results

"That all follow-up results were similar in both groups was a surprise," Cole told ORTHOPEDICS TODAY. "The general perception is that motion loss is greater and recurrence less in the open stabilization group. We did not find this result."

In this study, the treatment

modality had been determined by the surgeon at the time of diagnostic arthroscopy. "Well-accepted and recognized criteria were applied at the time of surgery in an attempt to match the appropriate procedure to the pathology determined at surgery," Cole said.



The Suretac bioabsorbable cannulated tack, used for arthroscopic stabilization, features a broad flat head and ribbed shaft. Marketed by Smith & Nephew Endoscopy, over 100,000 Suretac units have been sold globally since 1988.

Follow-up evaluation on 63 consecutive patients commenced an average of 49 months (range 27-72 months) after patients received either arthroscopic stabilization using a Suretac (Smith & Nephew Endoscopy Division, Andover, Mass.) bioabsorbable implant or open stabilization with or without Bankart repair. Failures included those with recurrent dislocation, subluxation, revision surgery and apprehension by physical examination. Four patients were lost to follow-up.

"To date, there has been no prospective study using the clinical and surgical findings to determine which procedure should be performed," Cole said. "Studies with the Suretac (implant) have not compared the procedure to the open stabilization and have usually focused on its application to the acute dislocator and not to those with chronic

recurrent shoulder instability," he added.

High Risk Activity

Of the 59 study patients, six of 37 (16%) arthroscopic stabilization cases and two of 22 (9%) open shoulder stabilization with or without Bankart repair cases redislocated or subluxated. While those figures appear relatively high, Cole concluded that comparisons to other studies suggested that "our population was relatively active (athletes or laborers) and they placed themselves into relatively high risk activities following recovery from surgery."

The investigators also discovered that patients with unsatisfactory results following either procedure were not necessarily dissatisfied or functioning poorly.

Active patients are "prone to recurrence with either procedure," Cole explained. Regardless of the procedure used, "recurrent instability is associated with early return to contact sports." However, with adequate pathology-based procedure matching, "one should expect comparable satisfactory results with arthroscopic and open techniques for traumatic recurrent anterior shoulder instability that are durable beyond two years," he noted.

Patient satisfaction scores ranked at 84% for all the arthroscopic stabilization procedure and 90% for the open stabilization procedure, Cole added.

Cole's future follow-up studies will evaluate the results of arthroscopic stabilization using an arthroscopically placed suture anchor, which "allows anatomic repair of the torn labrum as well as a component of capsular shift when needed," he said. This type of repair is quite versatile, addressing both the Bankart lesion (i.e., labral tear) and capsular laxity.

Cole's collaborators included Warner; John C. L'Insalata, MD; and Jay J. Irrgang, PT, ATC.

Arthroscopic Stabilization

Unidirectional
MRI/CT evidence of Bankart
Robust anterior band, inferior glenohumeral ligament
Minimal capsular laxity
Minimal articular involvement

Open Stabilization

Bidirectional
MRI/CT evidence of laxity
Poorly defined anterior band, inferior glenohumeral ligament
Patulous capsule
Bony Bankart

Investigators identified the conditions listed above to determine pathology-based procedure selection, according to arthroscopic findings, examinations of patients under anesthesia and MRI/CT scan interpretations.



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