

Journal club: 13 September 2011

Attendees: JC Talbot, M Sabo, C Ng, C Peach, C Simpson, M Walton, L Funk.

Wrightington Upper Limb Unit Journal Club

Wrightington Hospital, Hall Lane, Appley Bridge, United Kingdom

Reviewer: JC Talbot

Presented Paper:

Baker CL, Mascarenhas R, Kline AJ, Chhabra A, Pombo MW, Bradley JP.

Arthroscopic Treatment of Multidirectional Shoulder Instability in Athletes: A Retrospective Analysis of 2- to 5-Year Clinical Outcomes.

Am J Sports Med 2009 37: 1712

Summary

1. Purpose

The study aims to present the clinical outcomes and return to sports of an athletic population treated arthroscopically for symptomatic multidirectional shoulder instability.

2. Methods

A retrospective, single surgeon, case series of 40 consecutive athletes (43 shoulders) was conducted using the following inclusion criteria: multidirectional instability as defined by inferior instability and one other direction (anterior or posterior).

Demographics and surgical data was recorded retrospectively and final follow up performed using a telephone survey to conduct subjective scores for pain, range of movement, strength and stability and validated outcome scores American Shoulder and Elbow Surgeons (ASES) and Western Ontario Shoulder Instability (WOSI). There were no pre-operative scores performed for comparison.

3. Results

The average age of athlete was 19.1 years, and 24 athletes were men. 22 shoulders were described as traumatic in origin, 21 atraumatic. Intra-operative findings: 23 (54%) demonstrated Bankart lesions (15 from the traumatic group), 12 had posterior labral detachment with or without capsular redundancy (10 in the traumatic group). All had inferior laxity with positive sulcus sign. 63% of cases had suture anchors inserted while the remaining 37% had suture plication of the capsule alone.

Mean follow was 33.5 months, and good postoperative outcomes scores were presented with mean postoperative ASES 91.4 (range 59.9 – 100), mean WOSI 91.1 (range 72.9-100). Ninety-one percent had full or satisfactory range of motion, 98% normal or slightly reduced strength, and 86% were able to return to their sport with little or no limitation.

4. Conclusions

The authors concluded that arthroscopic methods can be effective in the treatment of symptomatic multi-directional instability in an athletic population.

Critique

This paper sets out to report the outcomes of symptomatic athletes with shoulder MDI treated by arthroscopic techniques. However, the paper presents a number of cases of traumatic shoulder instability in athletes alongside those with atraumatic instability, and as such present a very heterogeneous patient group.

Strengths

- This is an extremely well written paper in terms of its structure, layout, diagrams, tables and discussion points
- Inclusion and exclusion criteria are clearly defined
- Large, single series case series with few patients lost to follow-up
- Use of a validated clinical scoring systems to collect outcome data alongside subjective scores for pain, strength, range of movement and stability which are readily understood and retained by the reader (more so than scoring systems)

Methodological Concerns

- Heterogeneous study population including a large number of traumatic instability cases and Bankart lesions.
- Is inferior laxity with anterior instability and Bankart lesions in athletes secondary to trauma true MDI? No.
- Complete lack of pre-operative data invalidates the outcomes scores as no comparisons can be made following surgery
- There was no mention of adjunct therapy or response to therapy
- The abstract does not mention the high number of traumatic cases and is as such the paper is at risk of being incorrectly cited.