

Journal club: May 2013

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Sang-Jin S, Yeo-Hon Y, Dong Jun K, Jae Doo Y. Treatment of traumatic anterior shoulder dislocation in patients older than 60 years. *Am J Sports Med* 2012;40:822-7.

Purpose

To investigate the clinical manifestations of anterior shoulder dislocation in patients over 60. To evaluate the functional outcomes of different treatments based on associated injuries and number of dislocations.

Methods

This is a retrospective case series of 67 patients from Seoul, Korea. 52 were primary dislocations from the authors' institution and 15 were recurrent dislocations referred after initial treatment elsewhere. The average age was 69.7 years (range 60 – 89). There were 51 women and 16 men. Follow-up was at an average of 55.8 months (range 24 – 115).

Primary dislocations were managed with a closed reduction and immobilisation for 2 weeks. If they were asymptomatic at this point an ultrasound was performed to assess associated injuries to the shoulder. If they remained symptomatic, immobilisation was continued till 4 weeks and further review. MRI was used to assess associated injuries if there was no clinical or functional improvement at this point. All recurrent dislocations had an MRI scan.

Patients with a symptomatic rotator cuff tear or anterior capsulolabral lesion were offered surgery. The authors stated the surgical method differed based on the size of a rotator cuff tear, presence of an anterior capsulolabral injury and number of dislocations.

The ASES and Constant scores were used to assess outcome. The Goutallier grade of fatty change was measured if the MRI showed a rotator cuff tear.

Results

27 patients with primary dislocation were asymptomatic at 2 weeks and had no associated injuries seen on ultrasound scan. 4 patients with primary dislocation were symptomatic at 4 weeks but MRI revealed no associated injuries. 21 primary dislocations had associated injuries. There were 19 cuff tears, 12 isolated and 7 combined with anterior injuries (including 5 biceps tears) and 2 isolated

Bankart lesions. 4 of this 21 refused surgery (2 with cuff arthropathy and 2 with isolated Bankart lesions). 15 rotator cuff repairs were performed with 1 hemiarthroplasty for cuff arthropathy and 1 open reduction and Latarjet procedure.

All 15 recurrent dislocations had associated injuries and underwent surgery. There were 14 cuff tears and 10 of these had anterior capsulolabral injuries (of which 1 was a biceps rupture). 2 had isolated Bankart repair, 6 medium or small cuff tears had a cuff repair and anterior repair and 7 large or massive cuff tears underwent cuff repair alone regardless of anterior injury.

31 patients treated conservatively had an average ASES score of 93 and a Constant score of 89. The 4 who refused surgery had an ASES score of 87 and a Constant score of 82. The 17 primary dislocations who underwent surgery had an ASES score of 83 and a Constant score of 78 and the 15 recurrent dislocations had an ASES of 89 and Constant score of 84.

The Goutallier grade was only measured in primary dislocations and 17 were grade 2 or less and 2 were grade 3. There were no recurrent dislocations after treatment and the authors report no complications following surgery.

Discussion

The full thickness cuff tear rate was 35% in primary dislocations and 86% in recurrent dislocations. The anterior capsulolabral injury rate was 17% in primary dislocations (9.5% were biceps ruptures) and 66% in recurrent dislocations.

The authors state that there are significantly higher outcome scores for the non-operative group compared to the operative group ($p < 0.001$).

Strengths

There is plenty of information with regard to the associated injuries in both primary and recurrent dislocations in this patient group.

Methodological concerns

There is no clear rationale for type of operative treatment offered or the techniques used. It is not stated whether this is a consecutive series. There is no evidence offered in this paper for the assertion that better outcomes may be due to immobilisation and early diagnosis or the recommendation of an additional 2 weeks immobilisation before assessment in those symptomatic at 2 weeks. The choice of ultrasound at 2 weeks in asymptomatic patients but MRI in symptomatic ones at 4 weeks is not explained and may affect the diagnostic accuracy in these groups. The lack of an instability score for outcome is not ideal.

Overall Conclusion

The useful details on associated injuries are not easily accessible. It doesn't give an idea as to how to use this information. The surgery rate is high in primary dislocations and is not justified by the finding of associated injuries in 40% but an acknowledged recurrent dislocation rate in the literature of 11-22%. It is noticeable that the outcomes appear to be better in those who refused surgery and those who had surgery for recurrent dislocation than those who had surgery for primary dislocation. It seems that patients who suffer recurrent dislocations are more likely to have associated injuries than a primary dislocation group, but there are no comments as to whether this may be cause or effect.