

Provencher • Romeo SHOULDER INSTABILITY A Comprehensive Approach

## **CHAPTER 43 – Management of chronic shoulder dislocations**

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## **Key points**

- Chronic dislocation of the shoulder should be suspected in patients with shoulder pain and decreased range of motion in the context of dementia, alcoholism, obesity, seizure disorders, or multiple trauma.
- A patient with a posterior dislocation is most comfortable in a standard sling and should be fully evaluated.
- A quality axillary lateral radiograph is necessary to rule out dislocation.
- Closed reduction of a chronic shoulder dislocation after 3 weeks can be very difficult, and open reduction should be considered.
- Extensive bone loss should be addressed to improve postoperative stability.
- Posterior dislocations result in anteromedial humeral head impaction injuries, and anterior dislocations can cause both posterolateral humeral impaction injuries and anteroinferior glenoid bone loss.
- Arthroplasty should be considered in patients with greater than 50% humeral head destruction, preexisting arthritis, and low functional status.

## Introduction

The definition of a "chronic" shoulder dislocation is not clear in the contemporary literature. Various authors have used different cutoff values in the description of chronic dislocations, ranging from 24 hours to 6 weeks.<sup>[1]</sup> For the purposes of this chapter, we agree with Griggs and Iannotti,<sup>[2]</sup> in the use of 3 weeks as the defining time point. Furthermore, a "locked" shoulder dislocation often presents the same management dilemmas and requires similar treatment decisions. This chapter addresses the management of chronic shoulder dislocations; however, parallels with the treatment of a locked shoulder dislocation are acknowledged and can be applied.

Unrecognized glenohumeral dislocations leading to chronic cases are relatively uncommon, with anterior dislocations occurring more frequently than posterior.<sup>[1]</sup> However, in the context of posterior dislocations, a larger percentage is missed because of the difficulty in diagnosis on "standard" radiographs. In addition, patients with a posterior dislocation present to the treating physician in a position of comfort with a sling worn on the abdomen (internal rotation at the side). This adds to the potential for a missed diagnosis with a posterior shoulder dislocations and concluded that 50% had an associated fracture, 33% had neurologic injury, and 28% of these chronic dislocations were posterior. Rowe et al<sup>[4]</sup> also explored the prevalence of chronic dislocations seen by the practicing orthopaedist; 50% of surgeons in practice for 5 to 10 years had seen a chronic dislocation, 70% in practice for 10 to 20 years, and 90% above 20 years. Although it is a rare problem, the orthopaedic surgeon should be comfortable with the diagnosis and potential management options.

Patients with a chronic dislocation often have similar characteristics, including a history of significant multiple trauma, alcoholism, obesity, seizure disorder, or dementia. These conditions create distracting variables with a potentially decreased baseline functional status. Additionally, associated conditions such as rotator cuff tears (often massive) and glenoid and humeral head bony injuries may make the management decision-making

complex. Thus, patient functional demands, outcome expectations, and rehabilitation potential must be taken into consideration when developing a treatment plan.

Coexistent shoulder pathology must be recognized in the management of a patient with a chronic or locked shoulder dislocation. Often, these patients will develop osteoporosis of the humeral head and softening of the articular cartilage. Significant soft tissue contractures can be present and adhesions may develop between the humeral head the adjacent neurovascular structures with an anterior dislocation. Concomitant rotator cuff tears (sometimes massive) can influence shoulder stability, and subscapularis ruptures with biceps dislocations also may occur. Glenohumeral bone deficiencies can significantly influence joint stability with anteroinferior glenoid bone loss common in anterior dislocations. Defects in the humeral head can create engaging lesions that also impact shoulder stability; these include posterolateral and anteromedial lesions associated with anterior and posterior dislocations, respectively. Overall, an unrecognized shoulder dislocation creates a difficult treatment paradox with functional status, surgical morbidity, and coexisting pathology defining the overall treatment plan.

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