



## **Asymmetrical bilateral shoulder dislocation**

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### **Abstract**

We report a case of asymmetrical simultaneous bilateral dislocation of the shoulders in a 55-year-old man suffering from Alzheimer's disease. Bilateral shoulder dislocation is uncommon, but asymmetrical bilateral shoulder dislocation is quite rare. This report is the second case published in the literature.

### **Introduction**

Bilateral shoulder dislocation was first described in 1902 [8] in patients with muscular contractions as a result of Camphor overdose. The most common bilateral dislocations are posterior [5,6,7] resulting from epileptic seizures, electrocution or in emotionally disturbed patients. Bilateral anterior dislocation is rarer and occurs commonly following trauma.



Asymmetrical bilateral simultaneous shoulder dislocation, however, is a very uncommon condition with only one case published in the literature [1].

### *Case report*

A 55-year-old man presented to our department complaining of pain in both shoulders. The patient was suffering from Alzheimer's disease since 1 year. There was no history of seizure, epilepsy or loss of consciousness. There was no history of shoulder trauma. The patient had fallen but was unsure as to the exact mechanism of the fall and his wife was not present when he fell. There was no neurovascular deficit. Radiographs demonstrated an anterior dislocation on the right shoulder with a notch fracture (Fig. 1) and a posterior dislocation on the left shoulder without fracture (Fig. 2).



Fig. 1A



Fig. 1B

*Figure 1A: Right shoulder with anterior fracture-dislocation.  
Figure 1B: Same shoulder after reduction*



*Fig. 2A*

*Fig. 2B*

*Figure 2A: Left shoulder showing posterior dislocation.  
Figure 2B: Same shoulder after closed reduction*

Closed manipulations reduced successfully both dislocations as well as the fracture. The left shoulder was kept immobilised for one week and the right for three weeks. After a period of rehabilitation the patient regained a normal range of motion on the left and a useful glenohumeral movement on the right.

## **Discussion**

Unlike the posterior dislocations, the anterior dislocations occur more commonly following trauma [2,3]. The mechanism of anterior dislocation is forced extension, abduction and external rotation of the arm. A forced adduction and internal rotation can cause posterior dislocation if the external rotators of the Humerus are weak. In our case, the exact mechanism is unknown but a combination of trauma and forced muscle contraction is likely. The principles of management are similar to those for unilateral dislocation. Traction with either



external rotation (for anterior dislocation) or internal rotation (for posterior dislocation) under analgesia using adequate imaging will in most cases result in reduction. Open reduction is rarely needed but may be necessary in if the diagnosis has been delayed.

The biggest problem in bilateral dislocation is not to miss one of the dislocations, especially the posterior one, even though anterior dislocation can also be undiagnosed [4,9]. The diagnosis of posterior dislocation is more often difficult and can be delayed [5]. In bilateral posterior shoulder dislocation the contour of the shoulders are symmetrical and the anterior defect is often replaced by haematoma. The diagnosis is further hampered when pain is not a predominant feature. A systematic radiograph of the opposite gleno-humeral joint should be performed if clinical examination is not sufficient. It is necessary to have good quality x-ray films specially axillary or transthoracic lateral views. In the majority the posterior dislocations are caused by trauma or seizures. In the largest reported series by Honnor [7], over half were caused by seizures.

Asymmetrical bilateral simultaneous shoulder dislocation is very uncommon. To the best of our knowledge, this combination of injuries has only been reported once before [1]. The mechanism found by Aufderheide [1] associated alcohol and seizures. Such a combination of lesions requires an adapted and early treatment. This review demonstrates the need for an accurate history taking, examination and imaging. Classical rehabilitation with progressive passive and active physiotherapy of both shoulders is mandatory. Internal rotators (anterior dislocation) and external rotators (posterior dislocation) have to be strengthened at the same time to prevent recurrent dislocation.



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