

Bilateral Anterior Shoulder Dislocation: A case report

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ABSTRACT

In this case report, we present the case of a 41-year-old male who presented to the emergency department with bilateral shoulder pain and significantly decreased range of motion. His X-rays showed a bilateral dislocation of the glenohumeral joints, along with a proximal humeral fracture. Shoulder dislocations were manipulated, while the proximal humeral fracture was conservatively managed. Bilateral simultaneous asymmetric anterior shoulder dislocations are uncommon in such a young age group, especially when associated with a sports injury.

Keywords: : bilateral shoulder dislocation, avulsion humeral fracture, trauma and orthopedics, anterior shoulder dislocation, Mauritania

Introduction

Bilateral anterior shoulder dislocation is a rare injury where both shoulders dislocate simultaneously in anterior direction. Unilateral anterior dislocations are the most common and account for 95% of the presentations. In contrast, bilateral dislocations are uncommon, with bilateral anterior dislocations being even rarer than posterior dislocations. . Due to its complexity and paucity of cases reported in the literature, it represents both a diagnostic and therapeutic challenge [1]. Here, we report the case of a 41-year-old male who presented with a bilateral asymmetrical anterior shoulder dislocation with an avulsion fracture of the left greater tuberosity.

Case Presentation:

The patient was male, 41 years old, a nurse by profession, right-handed, who presented 7 day after a traumatic shock following a fall from a height, after feeling unwell and losing consciousness. On Physical examination There was a visible shoulder deformity with tenderness on palpation, while the movement of the gléno-humeral joint elicited extreme pain bilaterally. There was no peripheral motor, sensory or vascular deficit. There was a significantly decreased range of motion .In the shoulders bilaterally.X-ray and the CT-Scan images demonstrated an asymmetrical dislocation of both glenohumeral joints with an avulsion fracture of the greater tuberosity of head of humerus (Figures 1).

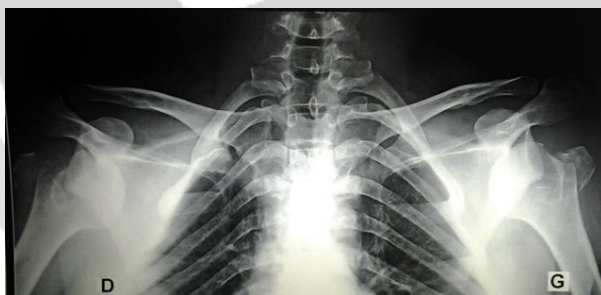


FIGURE 1: Anterior-posterior X-ray showing the bilateral anterior gleno-humeral joint dislocation with an avulsion fracture of the greater tuberosity.

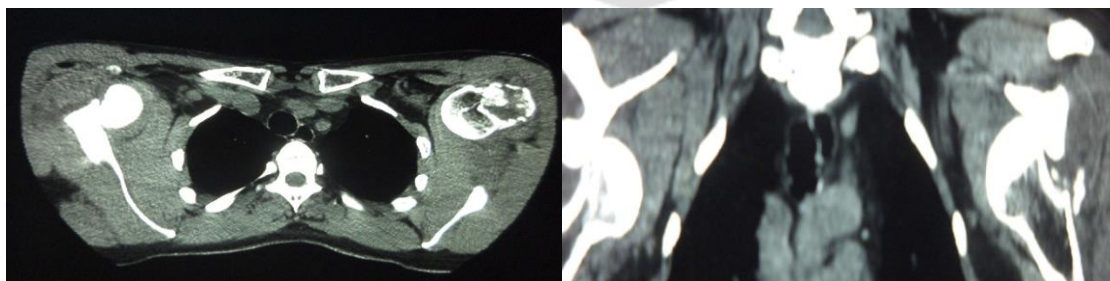


FIGURE 2 : Axial and coronal sections of CT scan showing the bilateral anterior gléno-humeral joint dislocation with an avulsion fracture of the greater tuberosity.

Both dislocations were subsequently reduced under sedation and fluoroscopic control, and the fixation of great tuberosity was performed by 2 K-wire(Figure3).Subsequently, strict immobilization was applied with a body bandage brace on both arms for four weeks, followed by a sling for Two weeks. In addition, the patient was referred for physiotherapy.



FIGURE 3: Anterior-posterior X-ray showing the right and left gleno-humeral joint post-reduction and K-wire fixation.

After 3 months of follow-up, we noticed a clear Improvement of the joint amplitudes of both shoulders (Figure 4), with pain free and no residual dislocations.



Figure 4 : Improvement of range of motion of both shoulders after 3 month of follow-up.

Discussion

Shoulder dislocations are a common emergency encountered by orthopedic surgeons [2]. Overall, 95% of these injuries are unilateral with an anterior displacement, with posterior unilateral dislocations accounting for less than 5% of the cases [1,5].it was describe in the first time in 1902 Bilateral shoulder dislocations are even less common[3]., most commonly occurring in the posterior direction often after a seizure [1]. Anterior dislocations usually occur during sports injuries which result in forced extension, abduction, and external rotation of the shoulder joint, whereas posterior dislocations often occur following axial loading on an arm that is adducted,flexed, and internally rotated [5].

The greater tuberosity is displaced in the approximately 15% of all anterior dislocations [4]. When a two part fracture dislocation is associated with a greater tuberosity fracture that is displaced, the diagnosis of rotator cuff tear is almost certain, and this can cause long term instability and functional impairment if the greater tuberosity fragment is not anatomically reduced [7]. In our case, although the fracture of the greater tuberosity was treated by fixation with two K- wire fixation, the patient regained satisfactory function.

Because there is a 52% recurrence rate of shoulder dislocations in younger populations, it is important to ensure that strict immobilization is applied [5,6]. Currently, there is no consensus on a time, but return to the normal activities can occur two to three weeks post-reduction. However, the decision should be individualized to each patient after a thorough clinical examination as the recurrence rate varies between 37% and 90% with a short time before return to normal activities [5].After conducting a literature search, we found several reports of bilateral anterior shoulder dislocations. However, these were mainly following seizure activity and a few with an associated Hill-Sachs lesion [8].Our case is a rare presentation of bilateral anterior shoulder dislocation because it occurred traumatic shock following a fall from a height, after feeling unwell and losing consciousness

an associated greater tuberosity fracture, which occurs in 15% of bilateral anterior dislocations and is more common in patients older than 40 years of age [3].To our knowledge, there is only one previous case of bilateral anterior shoulder dislocation which occurred without an obvious cause and one case of bilateral shoulder dislocation with a unilateral fracture [9].

Concerning the causes of bilateral anterior dislocation, epilepsy and electrocution are the most frequent in the literature [10]. Our patient had no immediate or long-term complication, but in a systematic review, neurovascular lesions were present in 10% of cases [10].

The static stabilizing structures include the glenoid and labrum, gleno-humeral ligaments, and joint capsule, and the dynamic stabilizers include the rotator cuff, long head of biceps, and scapular muscles. These structures ultimately provide a combination of glenoid concavity compression and scapula-humeral balance to provide stability at the glenohumeral joint in various positions of range of motion [11].

Conclusion

Bilateral anterior shoulder dislocation is a complex injury requiring prompt medical attention. We believe that our case is an important addition to the literature on bilateral anterior shoulder dislocations that can help guide treatment in similar cases.

Conflicts d'intérêt

Les autres de cet article ne déclarent pas de conflits d'intérêt

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