



Bilateral anterior shoulder fracture dislocation in a cycling athlete: A case report

Hani Redouane*, Ben-aissi Mohamed, Boufettal Monsef, Mahfoud Mustapha, Berrada Mohamed Saleh

Orthopedic Surgery Department of Ibn Sina Hospital, University Mohammed V, Rabat, Morocco

Abstract

Bilateral anterior fracture dislocation of the shoulder is very rare. We report a case of traumatic bilateral anterior dislocation of shoulders. We discuss the mechanism of the dislocation which is unusual and the treatment.

Keywords: shoulder dislocation, anterior fracture-dislocation, closed reduction

1. Introduction

Although the shoulder is the most frequently dislocated joint, bilateral glen humeral dislocations are rare and almost always posterior^[1]. However bilateral fracture-dislocation of the shoulder is even rarer, with only few cases reported in the literature. We report an unusual case of bilateral fracture dislocation of the shoulders in a 36-year-old cycling athlete man following a fall on his bike.

2. Patient and Observation

A 36-year-old cycling athlete male patient was received to our emergency trauma department after a fall on his bike during a local cycling competition. He complained of acute bilateral shoulder pain and stiffness and had no pathological history of seizure, epilepsy, alcohol intake or previous shoulder dislocation. Physical examination revealed fullness over the anterior aspect and flattened contour of both shoulders below the tip of the acromion suggestive of bilateral shoulder dislocations. There was no disturbance of the stump sensitivity of both shoulders. The pulse radial was present at both limbs, and the neurological examination was normal. Anteroposterior radiographs revealed bilateral anterior fracture-dislocation of both shoulders (Fig. 1). Under general anesthesia, both dislocations were reduced by external maneuver, according to Kocher's technique. After reduction, immobilization by a Mayo tubular jersey Clinic was set up, shoulders in adduction and internal rotation. On the control x-ray, the dislocations were well reduced, as well as the fragments of the greater tuberosities (Fig. 2). At three weeks of the accident, both shoulders were remained reduced and the immobilization has been removed. The patient received physical therapy as tolerated and was able to resume her daily activities 2 months later. At one year follow-up, the outcome was satisfactory and the shoulders were stable and painless with very good range of

motion with no redislocations occurring. Radiographs showed an anatomical consolidation of the fractures of the greater tuberosity on both shoulders. The patient had returned to practice his favourite sport after a 16 weeks hiatus.

3. Discussion

Anterior shoulder dislocation is the most common major joint dislocation encountered in the emergency department probably because of the position naturally adopted by the upper extremity during a fall. Bilateral dislocations of the shoulders constitute are rare^[2]. Indeed, the necessary force to produce this type of shoulder dislocation must act symmetrically and synchronously at the both glenohumeral joints. Such dislocations are usually caused by sports injuries, epileptic episodes, seizures, electrocution including electroconvulsive therapy, drug overdose, neuromuscular disorders, or severe emotional disturbances^[3, 4]. However, bilateral anterior shoulder dislocation is very rare and only about 30 cases were reported in the literature, 15 of which were of fracture-dislocation. Most were due to violent trauma from sports injuries and electrocution but also seizures and diabetic nocturnal hypoglycemia were incriminated^[5, 6]. Bilateral anterior shoulder dislocation was first described in 1902 in a patient with muscular contraction caused by a camphor overdose^[7]. Physical examination reveals a humeral head palpable in the anterior aspect of the shoulder. Clinical diagnoses of dislocation types and associated fractures may be inaccurate without imaging^[8]. Radiographs combined with computed tomography (CT) are recommended to make an accurate and early diagnosis. Patients are generally treated by closed reduction techniques under general anaesthesia followed by shoulders immobilization and subsequent active and passive physiotherapy.



Fig 1: Anteroposterior radiographs showing the bilateral anterior shoulders dislocation with bilateral fractures of the greater tuberosity

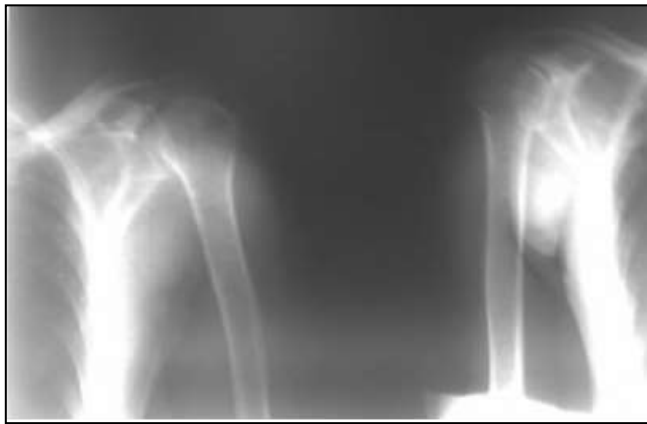


Fig 2: Post-reduction radiographs showing anatomical reduction of the greater tuberosity on both reduced shoulders

4. Conclusions

Bilateral anterior fracture dislocation of the shoulder is an extremely rare injury. Radiographs are mandatory to make an accurate and early diagnosis. Non-displaced and minimally displaced fractures are typically treated successfully by closed reduction followed by shoulders immobilization and subsequent physiotherapy.

Declaration of Interest

The authors declare that they have no conflicts of interest in relation to this article.

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