

Case Report

Luxatio Erecta: Case Report

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Introduction

Luxatio Erecta Humeri (LEH) is the rarest type of shoulder dislocation. It represents 0.5% of all shoulder dislocations [1]. The first description of this variety has been in 1859 by Middel dorp and Scharm [2]. Clinically, it's characterized by hyper abduction of the affected arm, flexion of the elbow and pronation of the forearm. The diagnosis is confirmed by antero posterior radiograph. This entity is frequently associated with neurovascular injuries. Concomitant fracture of clavicle, coracoid, greater tuberosities were also described. Early reduction should be done to prevent complications. We present a case of pure luxatio erecta, with discussion of the mechanism, clinical, radiographic and therapeutic features.

Case Presentation

A 60-year-old man who presented to the emergency department after falling several steps, causing pain and functional impotence of the right upper limb. Once admitted, the patient was conscious and cooperative. Upon physical examination, the right humerus was removed, the elbow flexed and the left hand resting on his forehead. He was unable to bring the elbow back to the body. No evidence of neurovascular compromise was noted (Figure 1). Radiological assessments of the right shoulder (plain X-ray and CT scan) revealed lower glenohumeral dislocation (Figure 2,3).

The closed reduction was performed by a pull-and-pull method under general anesthesia and confirmed by radiography, which showed an anatomical reduction of the glenohumeral (Figure 4). After reduction, the brachial, radial and ulnar impulses were palpable, and no motor or sensory deficit was detected. Immobilization bends to the body for 3 weeks, followed by physical rehabilitation of the right shoulder

Discussion

Luxatio erecta, or inferior shoulder dislocation, is the least common of shoulder dislocations representing only 0.5% of cases, with no age predilection [3]. Davids and Talbot [4] reported two mechanisms of luxation erecta. A direct dislocation results from an

Abstract

Although dislocations of the shoulder are very frequent, lower dislocation of the shoulder represents only 0.5% of all dislocations of the shoulder. It is frequently associated with neurovascular lesions and concomitant fractures. We report a case of pure erecta dislocation. We describe the mechanism and the therapeutic modalities of this injury.

Keywords: Luxatio erecta; Shoulder; Reduction



Figure 1: Clinical appearance of luxatio erecta.

axial loading to a fully abducted arm. An indirect dislocation, which is more common, is the result of a hyper abduction combined with external rotation.

The classic clinical finding is the arm locked in abduction, the elbow in flexion and the forearm behind the head, and any attempts to move is resulted in intense pain [5]. Our patient had similar presentation as described. The radiologic presentation of luxatio erecta is classically with the humeral head displaced directly below, and a little medial to the glenoid fossa, with the arm often in marked abduction. Fractures of the scapula or humeral head may also be seen, particularly of the greater tuberosity as in this case. "However, computed tomography is a better tool to evaluate associated fine fractures [6], and magnetic resonance imaging better reveals the injuries to the rotator cuff, the labrum, and the ligaments [7].

Closed reduction with appropriate analgesia should be chosen first in the emergency department. There are multiple reduction techniques available, the most common being the "opposite traction" technique described by Freundlich [8]. The second one consists to converting inferior dislocation to an anterior shoulder dislocation



Figure 2: Anteroposterior radiograph of luxatio erecta.



Figure 3: CTM view showing pure luxatio erecta.

[9]. However, unsuccessful closed reduction from entrapment of the joint capsule, or the presence of vascular injury may necessitate open reduction. In our case presented above, the closed reduction was achieved by traction-counter traction.

When the dislocation has been reduced the joint should be examined and xrayed once again to ensure successful reduction and evaluate for iatrogenic neurovascular injury or fracture.

Many complications of an inferior glenohumeral dislocation have been noted in the literature. Malon and al reported that 60 of cases manifested neurologic injuries most frequently to the circumflex nerve [1]. These injuries resolve generally after successful reduction. Several vascular injuries may be associated with luxation erecta most commonly to the axillary artery. However, the incidence of these injuries is low 3,3%. In addition, musculoskeletal injuries including rotator cuff tears, Fractures of the acromion, clavicle, inferior glenoid fossa and greater tuberosity are more frequent than other complications. In our case, after reduction, any neurovascular injuries noted, and the the x-ray Postreduction confirm a relocation of the dislocation.



Figure 4: The radiograph confirming successful reduction.

Conclusion

The Luxatio erecta is the rare form of shoulder dislocations. The clinical presentation is unmistakable. The anteroposterior radiograph confirms the diagnosis and assesses other bone fracture. Early reduction should be done to prevent complications. The functional long-term prognosis is excellent.

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