Uncomplicated Traumatic Bilateral Anterior Shoulder Dislocation in a Geriatric Patient: A Case Report

Yaşlı bir hastada travmatik komplike olmayan bilateral anterior omuz çıkığı: Olgu sunumu

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SUMMARY

Anterior dislocations of the shoulder are the most common major joint dislocation encountered in the emergency department, but bilateral anterior shoulder dislocations are very rare. It is well described in the medical literature that most of the bilateral shoulder dislocations are consist of posterior dislocation of the shoulders or anterior shoulder dislocations complicating neurovascular injuries and fractures. Here with we report a different case of uncomplicated traumatic bilateral anterior shoulder dislocation following minor trauma in an elderly man.

Key words: Bilateral anterior shoulder dislocation; trauma; geriatric patient; uncomplicated.

ÖZET

Anterior omuz çıkıkları acil serviste en sık görülen majör eklem çıkıklarıdır; ancak bilateral anterior omuz çıkıkları çok nadirdir. Literatürde en sık tanımlanan bilateral omuz çıkıkları nörovasküler yaralanmalar ve kırıkların eşlik ettiği posterior ve anterior omuz çıkıklarıdır. Bu olgu sunumunda yaşlı bir hastada minör travmayı takiben oluşan ve komplike olmayan bilateral travmatik anterior omuz çıkığı olgusu sunuldu.

Anahtar sözcükler: *Bilateral anterior omuz çıkığı; travma; geriatrik hasta; komplike olmayan.*

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Introduction

A 75 year-old elderly man suffering from severe bilateral shoulder pain presented to the emergency department. While he was walking he stumbled over his own feet and fell down. The mechanisms of injury were combinations of shoulder abduction, extension and external rotation. There was no history of seizure, epilepsy or loss of consciousness. There was no history of recurrent shoulder dislocation. Physical examination revealed obvious bilateral dislocations of the shoulders. There were no peripheral nerve injury, vascular deficits and sings of fracture. Radiographs of the shoulders demonstrated anterior subcoracoid dislocation of both shoulders (Fig. 1).

Both dislocations were successfully reduced by closed manipulation under general anesthesia. Reduction of the anterior glenohumeral dislocation could be effected by traction on the abducted and flexed arm with counter traction on the body. We added gentle rocking of humerus from internal to external rotation and outward pressure on the proximal humerus from the axilla. There was no neurogenic or vascular injury following the procedure. The integrity of the rotator cuff is initially evaluated by observing the strength of isometric external rotation and abduction. Postreduction roentgenograms were performed to confirm reduction and detect fractures. There was no iatrogenic complication. He was discharged from the hospital after 24 hours of observation. The shoulders were immobilized for one week. After a period of rehabilitation he regained normal range of motion and there was no shoulder pain and weakness 18 months after the injury.

Discussion

Bilateral shoulder dislocation was first described in 1902 in patients with muscular contractions as a result of Camphor overdose.[1] Bilateral posterior shoulder dislocations are more common and they result from epileptic seizures, electrocution or in emotionally disturbed patients.[2-4] Bilateral anterior dislocation is rare and occurs commonly following trauma.

It is well described in the medical literature that most of the bilateral shoulder dislocations are consist of posterior dislocation of the shoulders or anterior shoulder dislocation complicating with neurovascular injury[5,6] and fractures.[7-19] There are few reported traumatic bilateral shoulder dislocation in elderly patients who had no complicating neurovascular injury or fracture in the literature.[20,21]

A common feature of traumatic anterior dislocations is avulsion of the anteroinferior glenohumeral ligaments and capsule from the glenoid lip, seen especially in younger individuals. Fractures of the glenoid, humeral head and tuberosities may accompany traumatic dislocations. Rotator cuff tears may accompany anterior and inferior glenohumeral dislocation. The frequency of this complication increases with age in patients older than 40 years of age with an incidence of exceeding 30%.[22] Vascular damage most frequently occurs in elderly patients with stiffer and more fragile vessels. The brachial plexus and the axillary artery lie immediately anterior, inferior and medial to the glenohumeral joint. It is not surprising therefore that neurovascular injury frequently accompany traumatic anterior glenohumeral dislocations. Although our patient was elderly and had all predisposing factors such as osteoporosis, fragile vascular tissues and anteroinferior dislocation, we didn't see any complication related to bilateral anterior shoulder dislocation.

Unlike posterior dislocations, secondary to seizures associated with epilepsy, electrocution and hypoglycemia, the anterior dislocations occur more commonly following trauma.[11] 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 the present case, the mechanism was consistent with mechanism defined for anterior dislocation. The principles of management are similar to those for unilateral dislocation. In most cases, reduction can be obtained by traction combined with external rotation under general anesthesia. Open reduction is rarely required but may be necessary if the diagnosis is delayed. In our case, we also preferred closed reduction under general anesthesia.

The occurrence of first dislocation at younger age is associated with a high risk of recurrence. Rowe found a recurrence rate of 83% with a first dislocation before age 20 years vs. 16% in

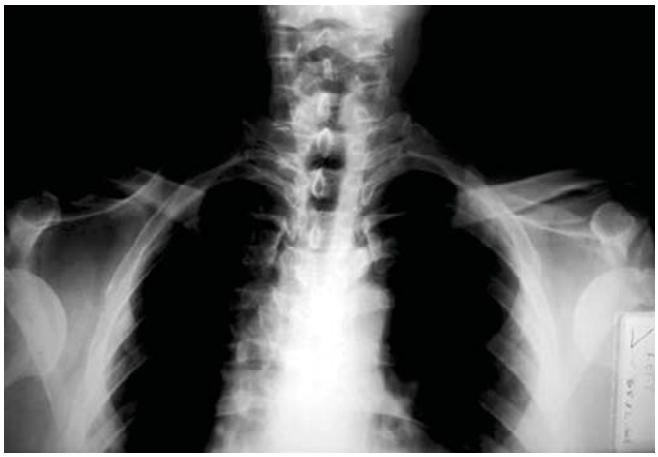

Fig. 1. *X-ray of a 75-year-old man, showing uncomplicated bilateral subcoracoid anterior shoulder dislocations.*

patients with a first dislocation after age 40 years.[2,3] Our case was 75-year-old elderly patient and it was the first dislocation. Older patients may tend to stretch the capsule or break the greater tuberosity either of which is necessary to maintain a stable shoulder.

Conclusion

These complications are mostly encountered in the elderly population with bilateral anterior shoulder dislocations. Although extremely rare, bilateral anterior shoulder dislocations of the elderly can be seen without these complications.

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