CASE REPOT
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Bilateral Traumatic Anterior Dislocation of Shoulder - A Rare Entity

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What to Learn from this Article?

Presentation and management of bilateral traumatic anterior shoulder dislocation?
Unique mechanism of injury for this rare phenomenon.

Abstract

Introduction: Bilateral shoulder dislocation are most commonly posterior type. These are most commonly due to seizure disorder and electrocution. Anterior shoulder dislocations occurring bilaterally without any predisposing factors are very rare. These types of injuries are due to trauma with a unique mechanism of injury. To best of our knowledge there are only few cases of similar kind are reported in literature. We hereby report a interesting case of posttraumatic, bilateral anterior dislocation of shoulder without associated fracture in a 45 old women without any predisposing pathoanatomy.

Case report: A 45-year-old women presented to casualty with sudden onset of pain and restriction of movement in both shoulders fallowing trauma. Immediately post trauma she had severe pain and restriction of both shoulders. On examination arms were abducted and externally rotated. Bilateral shoulder movements were painful and restricted . There was loss of round contour of shoulder with increased vertical diameter of axilla anteriorly. Radiological examination revealed bilateral anterior dislocation of the shoulders without any associated fractures. Closed reduction done by Milch technique after intraraticular lignocaine injection. MRI of bilateral shoulder showed no pathological lesion. Both shoulders were immobilized with a shoulder immobilizer for three weeks.

Conclusion: Most of the bilateral shoulder dislocations are posterior type seen in seizure disorders. Bilateral traumatic anterior shoulder dislocations are rare and are seen as a result of unique mechanism of injury. In our case patient had a fall on her elbows causing forced extension. If diagnosed and treated promptly completely normal function of the shoulders can be restored.

Keywords: Bilateral; dislocation; traumatic; shoulder.

Introduction

Shoulder is the most commonly dislocated joint in the body because of its mobility. Bilateral shoulder dislocations are usually posterior type and are almost pathognomonic of seizure disorder or electrocution. Though anterior dislocation of shoulder is commonest bilateral simultaneous dislocation is very rare[1-7]. To best of our knowledge there are very few cases reported in literature [2]. We hereby report a case of posttraumatic, bilateral anterior dislocation of shoulder without associated

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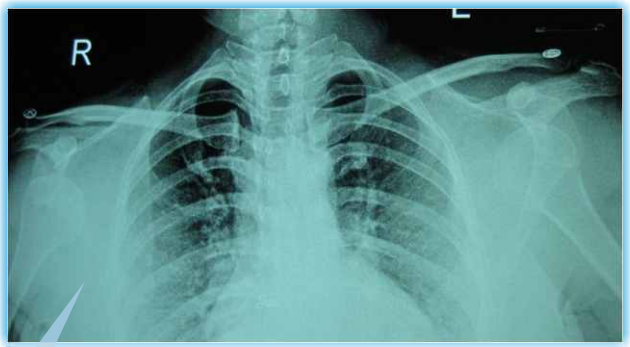

Figure 1 : Radiograph showing bilateral shoulder dislocation

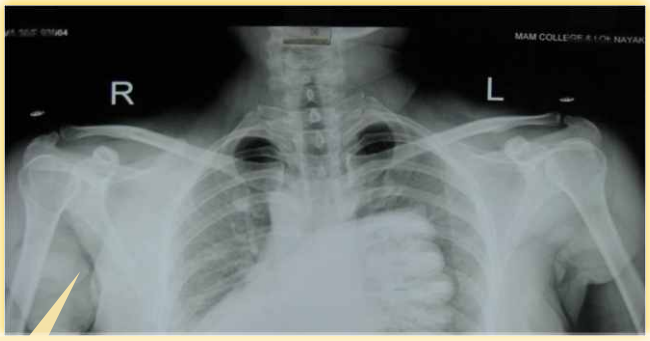

Figure 2: Concentric reduction of bilateral shoulder joint achieved

fracture in a 45 old women.

Case Report

A 45-year-old women presented to Lok Nayak Hospital , New Delhi , India in august 2010 with sudden onset of pain and restriction of movement in both shoulders fallowing trauma. Patient slipped while walking downstairs and fell down over pointed elbows. Immediately post trauma she had severe pain and restriction of both shoulders. She had no history of seizure, epilepsy, previous shoulder dislocation or instability in other joints. On examination arms were abducted and externally rotated. Bilateral shoulder movements were painful and restricted (figure 1). There was loss of round contour of shoulder with increased vertical diameter of axilla anteriorly. Radiological examination revealed bilateral anterior dislocation of the shoulders without any associated fractures(figure 2).

Closed reduction done by milch technique after intraraticular lignocaine injection. Post reduction radiographs showed congruent reduction (figure 3). MRI of bilateral shoulder showed no pathological lesion. Both shoulders were immobilized with a shoulder immobilizer for three weeks. Mobilisation with strengthening the rotator cuff and deltoid muscles started after three weeks.

Discussion

Majority of the bilateral shoulder dislocations are of posterior type most commonly seen during convulsion, electric shock or hypoglycaemic seizures. Posterior type is common in these conditions due to violent contractions of the muscles of the shoulder girdle [8-10]. Unlike posterior dislocations anterior type occur more commonly following significant trauma. Bilateral occurrence of anterior shoulder dislocation is rare because of the fact that one extremity takes the brunt of the impact. To best of our knowledge only three cases of bilateral anterior dislocations are reported in literature. In two of the three cases reported were sequential, one sided followed by contra lateral side dislocation. In our case impact is same on both shoulders at the same time.

The mechanism of anterior dislocation is forced extension, abduction and external rotation of the arm. In

Author	Mechanism of injury	Systemic disease	Associated fractures	Journal and year
Turhan E, Demirel M.	Fall	Nil	No fracture	Arch Orthop Trauma Surg. 2008
N Lasanianos ,G Mouzopoulos	Seizure episode	Seizure disorder	Greater tuberosity fracture, Hill Sachs lesion	Cases journal,2008
Abalo et al	Fall	Nil	Nil	Chir main, 2008
Mofidi et al	Seizure episode	Generalised tonic clonic seizure	Temporomandibular dislocation	American journal of emergency medicine,2010
Faycal Dilmi et al	Diving into water	Nil	Nil	JOrthop Traumatol. 2012
Felderman H et al	Workout(chin up exercises)	Nil	Nil	J emerg med, 2009
Our case	Fall from stairs	Nil	Nil	-

Table 1: Comparison of various bilateral anterior dislocations reported.

our case mechanism of injury was forced extension as the patient fell on her pointed elbows. Mechanism of injury, systemic disease and associated fractures in various similar cases is depicted in table 1.

Croswell and Smith reported a case of bilateral anterior dislocation of the shoulder without any fractures in a bench-pressing athlete [11]. In an unusual mechanism of injury weight on the bar forced his arms into hyperextension in the mid-abducted position. The humeral shaft gradually pivoted on the bench and the humeral heads were slowly dislocated interiorly by the weight of the bar. Sandeep S and Sudhir K reported a case of sequential bilateral anterior dislocation in which the left shoulder dislocated first due to trauma followed by atraumatic dislocation of the right shoulder[12]. Sreesobh K V et al reported a case where atraumatic right shoulder dislocation was followed by traumatic dislocation of the left [7].

Closed reduction of both shoulder dislocation carried out under general anaesthesia by Milch manoeuvre [13]. Patient was immobilized with a shoulder immobilizer for three weeks. MRI of bilateral shoulder showed no other pathological lesion. Mobilisation with strengthening the rotator cuff and deltoid muscles started after three weeks. Six months after follow up patient had full range motion without any instability.

Conclusion

Bilateral anterior shoulder dislocation following a trauma is very rare occurrence. This type of dislocation involves a unique type of mechanism injury and in our case it was fall on pointed elbow causing forced extension.

Clinical Message

Bilateral anterior shoulder dislocations most commonly because of seizures. Traumatic bilateral anterior dislocations without any pathologic lesion are very rare with only few cases reported in literature. These types of dislocations are due to unique mechanism of injury. When diagnosed and treated promptly lead to restoration of completely normal shoulder joints.

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