

## All Anterior Dislocation – A Unique Injury

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### Abstract

Bilateral shoulder Dislocations with ipsilateral hip dislocation is a very rare entity. To our knowledge not a single case has been reported with this type of injury. We report a case where the anterior dislocation trio occurred one after the other in an unusual mechanism of injury.

**Keywords:** Shoulder dislocations; Upper limb; Rotator cuff tear

### Introduction

Shoulder dislocations are the most common dislocations confronted in the emergency department. Traumatic bilateral glenohumeral dislocations are rare and are almost always posterior. These dislocations are mostly concurrent [1] and are mainly caused due to the violent muscle contraction in patients who undergo electroconvulsive therapy, with seizure disorder or who experience electric shock [1-3]. We report a case where patient had anterior shoulder dislocation of both the shoulder and right hip joint; as to our knowledge bilateral anterior shoulder dislocation with unilateral hip dislocation has never been reported.

### Case Report

A 50-year-old gentleman presented to the emergency department of our hospital following an injury while traveling in a sleeper coach bus. The patient gives history of sleeping on the right side upper berth with his head end facing towards driver side (Figure 1). The Physical examination of bilateral shoulder joint revealed fullness over the anterior aspect of the shoulder joint with the bilateral upper limb held in abduction, slight flexion, and external rotation. The right hip was shortened and was in external rotation. The motor function, sensation, and distal pulses in bilateral upper limb and right lower limb were intact. Radiography was done and revealed anterior dislocation of bilateral shoulder joint and anterior dislocation of right hip joint (Figures 2 and 3). There were no associated fractures. Reduction of the dislocation was done in emergency under general anaesthesia, by Kocher's technique both the shoulder joint were reduced and by Modified Allies technique right hip was reduced. Post reduction both the shoulder joint and right hip radiographs were done and they were suggestive of proper containment of the joints (Figures 4 and 5). The entire three joints were normal when examined for physiological range of motion. The power



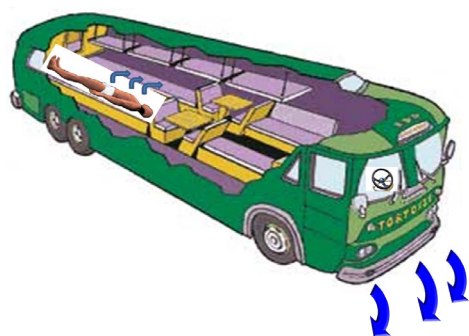
Figure 2: Anterior dislocation of right hip joint.



Figure 3: Anterior Dislocation of Bilateral Shoulder joints.

### Discussion

Bilateral shoulder dislocation was first described in 1902 in a patient with muscular contraction caused by a camphor overdose [4]. The mechanism of injury for anterior dislocation of the shoulder is forced extension, abduction, and external rotation. A direct blow to the posterior aspect of the shoulder, or a sudden and violent contraction of muscles around the shoulder can result in anterior dislocation. Unilateral anterior dislocation of the shoulder is common because of



1: Explaining the position of patient in bus and mechanism of injury.

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Figure 4: Relocated right hip joint.

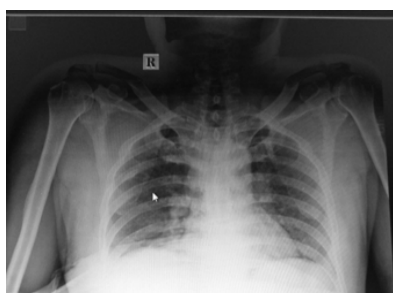


Figure 5: Relocated bilateral Shoulder joint.



Figure 6: Seat Belt for sleeper seats in bus.

the position naturally adopted by the upper extremity during a fall. However, bilateral occurrence is rare because in almost all instances

one extremity takes the brunt of the impact. Associated fracture of the greater tuberosity occurs in 15% of the anterior dislocation cases and indicates an associated rotator cuff tear [5]. The cause of dislocations in our patient was different from the cases that were reported in the literature. As literature says that dislocation forces must act simultaneously in same manner e.g. Gymnasium, epilepsy, swimming [5]. Our case contradicts the literature theory as our patients had anterior dislocation of both the shoulder one by one. The uniqueness of our case is that he had simultaneous anterior dislocation of bilateral shoulder joint with right hip joint. Such dislocations are not mentioned in the literature yet. We are able to explain such dislocations by understanding the mechanism of injury. While in sleep patient rolled on his left side and suddenly the bus took a right turn. Eventually his right shoulder and hip both went into external rotation leading to dislocation of both the ipsilateral joints and then the patient hit his left upper limb in extreme external rotation position leading to dislocation of his left shoulder (Figure 1). The purpose of reporting this case was to explain the mechanism of injury in such dislocations and to suggest preventive measures by modifying berth seats of the sleeper coach buses. Berth belts, which hold the passenger across the berth, can be used to prevent such injuries and any sudden rotation movement (Figure 6).

## Conclusion

The main aim behind this case report was to illuminate the mechanism of injury and the need to seat belts in the sleeper coach buses to prevent sudden rotation movements, which can prevent these type of injuries.

## Conflict of Interest

None

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