

## Ipsilateral Dislocation of Shoulder and Elbow Joints

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### Abstract

Ipsilateral dislocations of the shoulder and elbow joints are very rare. In English literature, only eight cases have been reported. It is imperative to remember the shoulder dislocation as it is easily missed at the initial presentation of a combined elbow and shoulder dislocation. A 40 year old female patient presented with sustained ipsilateral dislocations of her left shoulder and elbow joint after falling over her cat. The elbow was reduced first, followed by the shoulder. Maintaining a high index of suspicion is fundamental in ensuring that a second dislocation is not missed when a patient presents with either a shoulder or elbow dislocation. She made a very good recovery of the function of her left upper limb within three months.

**Keywords:** Ipsilateral; Shoulder; Elbow

### Introduction

The shoulder joint is the most frequently dislocated joint, closely followed by the elbow joint [1]. However, simultaneous dislocations of both joints on the same limb seldom occur with only eight recorded in English literature. Fractures of the greater tuberosity or coracoid process can be associated with dislocations of either joints (shoulder and elbow), but a double dislocation without other associated injury is uncommon. This combination of injury can be easily missed if the patient is not properly examined at initial presentation [2] and hence result in a late or completely missed diagnosis of the shoulder dislocation. A case report of an ipsilateral dislocation after enduring minor trauma was reduced with intravenous sedation in the Accident and Emergency department and later made a very good, complete recovery of function.

### Case Report

A 40 year old female patient presented in the Accident and Emergency department after tripping over her cat and falling down a flight of stairs. She had previously consumed some alcohol. The patient complained of pain over her left elbow and shoulder joints which she consciously immobilised and refused to move. There was no neurovascular deficit.

Plain radiographs figures 1 and 2 of her left upper limb showed anterior dislocation of the shoulder joint and posterior dislocation of the elbow joints without any associated fracture. Figures 3 and 4 are post-reduction plain radiographs.

She was given entonox (Nitrous oxide and oxygen) and intravenous morphine in the Accident and Emergency department before both dislocations were reduced beginning with the elbow joint.

Figures 1 and 2, both joints were stable on reduction and she had a long arm plaster slap with the elbow in 90° of flexion and a board arm sling. She was discharged home the same day and reviewed two weeks post-injury where the plaster was removed and active and passive exercises started. At three months post-injury, she had re-acquired full range of movement of the shoulder joint and elbow flexion (20° to 110° [90° arc of flexion]). The patient is now working full time in her career job and remains pain free.

### Discussion

Suman was the first to report and ipsilateral dislocation of the

shoulder and elbow in a 31 year-old patient who suffered a road traffic accident under the influence of alcohol [3] in 1981. Since then there have only been a couple reported; eight according to English literature. Ipsilateral dislocations of the elbow and shoulder joint is a rare and complex injury that can go undetected in patients who are very obese, and in head injuries patients who will not complain of pain, or in patients who are drunk [2-5].

The shoulder dislocation is most often missed at initial presentation. Upholding a high degree of suspicion following trauma to the humerus and elbow and careful clinical examination of all joints, proximal and distal to the dislocated joint is pivotal in certifying that an ipsilateral



Figure 1: Radiograph of dislocated left shoulder and elbow.

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Figure 2: Lateral view radiograph of dislocated elbow.

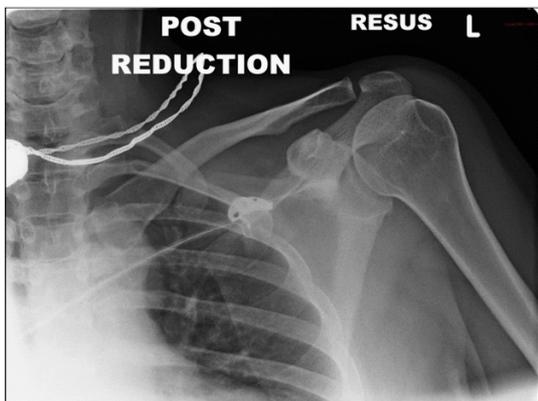


Figure 3: Post reduction radiograph of left shoulder.



Figure 4: Post reduction radiograph of left elbow.

shoulder dislocation is not missed. In the cases of road traffic incidents and high velocity trauma, multiple dislocations may occur and these patients should be fully and carefully examined and if there is dislocation, the joints proximal and distal should be radiographed [4].

The mechanism of injury is not well known and difficult to define. In most occasions, patients are unable to recall their position during the trauma. Force transmitted through the forearm with the elbow flexed and shoulder externally rotated may be a possible cause of dislocation [6]. Multiple joint dislocations may mainly occur when muscle tone is reduced [7]. Alcohol consumption was reported in some of the cases [1,3,8] and interestingly may be a risk factor as with this case report.

This injury, yet complicated, may be treated with closed reduction under general anaesthesia with the elbow joint reduced first to ensure a stable distal joint to help reduce the shoulder [3,9,10]. Furthermore, Kocher's Manoeuvre was used on this patient. As this patient was not obese, the diagnosis of a double dislocation was not difficult and the reduction of the dislocation occurred without complication on intravenous sedation. Thus, in slim patients with this type of injury, intravenous sedation may be primarily tried before considering general anaesthesia remembering to maintain a very high index of suspicion for second dislocations. This patient made a very good recovery within three months.

#### Acknowledgment

(1) The patients gave informed consent prior to being included in the study; (2) the study was authorized by the local ethical committee and was performed in accordance with the Ethical standards of the 1964 Declaration of Helsinki as revised in 2000.

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