

## Case Report

### Ipsilateral dislocation of the shoulder and elbow: A case report

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#### Abstract

Ipsilateral dislocation of the shoulder and elbow is uncommon. Shoulder dislocation is often misdiagnosed on admission. We report the case of an 31-year old male whose dislocations were both recognised at the initial examination. Diagnosis pitfalls, mechanism, and management of this rare injury are reviewed.

**Keywords:** Dislocation, elbow, ipsilateral,

#### Introduction

Dislocation of the elbow joint is the second most common dislocation in adult in the upper limb, dislocation of the shoulder being the most common.<sup>1,2</sup> However, their association in the same limb is a rarely reported condition.<sup>3</sup> We present a case of ipsilateral dislocation of the shoulder and elbow in an adult patient.

#### Case Report

A 31-year-old man injured his right upper limb after having fallen down a flight of stairs. Under the

**Fig. 1.-** Right humerus showing ipsilateral dislocation of the shoulder (black arrow) and elbow (white arrow)



influence of alcohol, he was unable to remember the exact mechanism. There was deformity and painful

swelling of the right shoulder and elbow. No neurovascular deficit was found and other clinical findings were normal. Plain radiograph revealed ipsilateral anterior shoulder and posterior elbow dislocations (Fig 1). Under general anesthesia, the dislocations were readily reduced by closed manipulation. The elbow joint was reduced first then followed by the reduction of the shoulder joint. The elbow joint was stable. The elbow was kept in 90° flexion using a posterior plaster slab, while the whole upper limb was supported with a sling for three weeks. The patient was then instructed to start active movement of both joints. Fourteen months after the injury, he was asymptomatic, with full range of movement of the elbow and shoulder and had returned to his normal occupation and sporting activities without restriction.

#### Discussion

Bipolar dislocation of a segment of limb is a rare injury. It is often encountered in the upper limb.<sup>4,5</sup> In 1981, Suman<sup>6</sup> first reported a case of ipsilateral dislocation of the shoulder and elbow. Since then, other cases have been reported.<sup>3,7,8</sup> The main peculiarity of the current report is the fact that both dislocations were recognised at the initial examination. In the reports by Khan and Mirdad<sup>3</sup> and Ali and Krishnaw<sup>7</sup>, the shoulder dislocation was missed on admission owing to the marked swelling and severe pain located at the elbow. These clinical features are similar to that in simultaneous dislocation of shoulder with an ipsilateral fracture of the humeral shaft where the dislocation is often initially missed.<sup>9,10</sup>

All these authors stress the importance of a careful examination and maintenance of a high degree of suspicion following trauma to the humerus, as an ipsilateral shoulder dislocation can be easily missed.<sup>3,7,9,10</sup> Regarding the mechanism, a force transmitted through the forearm with the elbow flexed and the shoulder externally rotated might be the possible cause.<sup>1</sup> Although this complex injury results from severe trauma, we agree with Rosson<sup>8</sup> that it could be surmised that multiple dislocations of major joints are more likely to occur when muscle tone is

reduced. Alcohol consumption reported in our patient as well as in others<sup>1,6</sup> could be considered as a risk factor. Considering the treatment, this complex trauma is yet easy to manage by closed means. Under general anesthesia, reduction of the elbow first would ensure a stable distal part of the limb to help reduction of the shoulder joint.<sup>3,6,7</sup> We would emphasise that dealing with a dislocation of one joint following a complex injury, associated involvement of the others should be looked for, and a prompt and appropriate treatment institute.

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