

A Rare Case: Galeazzi Fracture Dislocation after Motor Accident

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Abstract

The fracture pattern that includes distal radial shaft fracture and distal radial joint dislocation is defined as Galeazzi fracture-dislocation. Galeazzi fracture is most commonly caused by falls from height, but it has also been observed that traffic accidents and occupational accidents can also cause Galeazzi fractures. Galeazzi fractures are rare in the literature. It is a fracture that can be overlooked in life-threatening injuries, especially in high-energy multiple traumas. Serious conditions such as neurovascular injuries and compartment syndromemay develop after these fractures. We think that the development of complications will decrease after early intervention and avoidance of Galeazzifracture.

Keywords: Galeazzi fracture, radius shaft fracture, radioulnar joint

1. INTRODUCTION

It is known as the fracture pattern in which distal shaft fracture of the radius shaft and ulna dislocation at the distal radioulnar joint are found together(1). It was first described by Cooper in 1822, but its incidence and pathomechanics were presented by Ricardo Galeazzi in 1934(2,3). The incidence of this fracture is between 2.7% and 6.8% among all arm fractures and between 0.3% and 2.8% in children, peaking between 9-13 years of age(3). Galeazzi fracture-dislocation may occur as a result of forced pronation or direct impact after a fall on an open hand(1). This fracture is well known for its instability and delayed treatment or inadequate treatment has a significant effect on the fracture resulting in terrible complications(4). Although falls from heights are most commonly blamed for the aetiology, traffic accidents and occupational accidents are also included in the literature (1).

2. CASE

42 years old male patient was brought to the emergency department after a motor accident. The patient's consciousness was clear, coopere GKS 15 general condition was moderate-good, 2*4cm laceration in the left parietoccipito temporal region, left periorbital edema, swelling and tenderness in the right wrist, sensory and circulatory examination was normal. In the radiograph of the patient, there was a fracture in

the distal part of the right radius and a dislocation in the ulna in the radioulnar joint. The patient was consulted to the orthopaedics department and closed reduction and long arm splint were performed in the emergency department. The patient with subdural haematoma was admitted to the intensive care unit of neurosurgery and orthopaedics was involved in the operation during the operation by neurosurgery, plates crew application for radius shaft fracture and closed K wire application for ulnar dislocation in the radioulnar joint.

3. DISCUSSION

Galeazzi fracture dislocation is a rare unstable fracture dislocation of the forearm. However, it may lead to impairment in hand functions if a complete treatment is not provided or if it is missed(5). Missed Galeazzi fractures may lead to early complications such as compartment syndrome, neuro vascular complications and late complications such as non union, mal union and refractures(6). It has been shown to be especially associated with high-energy traum as. Unfortunately, some fractures are missed in high-energy multiple traumas due to the density in emergency departments. In some studies, the rate of missed diagnosis in multiple trauma patients has been investigated. These rates were reported as 12% by Chan et al(7), 8.1% by Buduhan and McRitchie(9), 4.2% by Laasonen

and Kivioja(8) and 1.4% by Robertson et al(10). The most common anatomically missed injury sites in patients with multiple trauma were extremities (33.3%), head (30.2%) and thorax (19.1%). It has been reported that fractures are among the most common missed injuries with a rate of 50%(8).

Galeazzi fracture dislocations should not be over looked in terms of complications that may occur, although they are rarely seen in emergency services. Even the first simple interventions, closed reduction and splinting can prevent serious complications that may occur later in patients.

4. CONCLUSION



Figure 1-2. Radial distal shaftfracture and dislocation of the dislocatedulna on right forearm radiograph



Figure 3-4. Postoperatives tabilisation with plates crew and K wire

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