

Elbow dislocation with ipsilateral radius and ulna fracture: is it so common?

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ABSTRACT

Elbow dislocation with ipsilateral diaphyseal fracture of both radius and ulna is a rare injury. However, elbow dislocation with either radius or ulnar diaphyseal fracture is commonly reported. We report an uncommon injury of a 16 years old male who had his elbow dislocation with ipsilateral both bones forearm fractures. Elbow dislocation was reduced and fracture both bones were fixed with dynamic compression plate under brachial block.

Keywords: Elbow dislocation; radius fracture; ulna fracture.

Elbow dislocation with ipsilateral both bones of forearm fracture is an uncommon injury.¹ Fracture dislocation around the elbow with fracture of either radius or ulna is a commonly encountered injury.² However, ipsilateral elbow dislocation with both bones forearm fractures is uncommon as they follow different mechanism of injury.¹ The appropriate intervention gives better result even if the severity of trauma is more. We report a case of elbow dislocation with ipsilateral fracture of shaft of radius and ulna with excellent clinical outcome. Immediate close reduction of elbow followed by assessment of stability structures of elbow should be done first. Open reduction and internal fixation of shaft of radius and ulna can be done in the same setting of anaesthesia.

CASE

A 16 years old male sustained road traffic accident and presented to our ER with history of pain and difficulty moving his deformed left forearm. On examination, there was marked swelling over left elbow and forearm with visible deformity. Distal neurovascular status was normal. A differential of elbow dislocation with ulna fracture was made. Plain X-ray showed the posterolateral dislocation of elbow as well as fracture of shaft of radius and ulna [Fig. 1]. Elbow joint was reduced and found stable. Open reduction and internal fixation of radius was done with 6-hole 3.5 mm dynamic

compression plate from dorsal approach. Similarly ulna was fixed with 7-hole dynamic compression plate from lateral approach [Fig. 2]. Above elbow back slab was given for three weeks. NSAIDs in form of Indomethacin 75 mg was prescribed in divided doses. Three weeks later, back slab was removed and gradual passive range of motion exercises was initiated. At the end of 6 weeks he gained near normal recovery in terms of elbow flexion, extension, supination and pronation in forearm. Complete union of fracture was noted in 3 months [Fig. 3].

DISCUSSION

Elbow joint is one of the most inherently stable joint.¹ Dislocation of elbow is usually associated with fracture of radial head, radial neck, coronoid process or olecranon.² Ulnar diaphyseal fracture associated with elbow



Fig. 1. Anteroposterior and Lateral view of elbow and forearm showing elbow dislocation and fracture shaft of radius and ulna

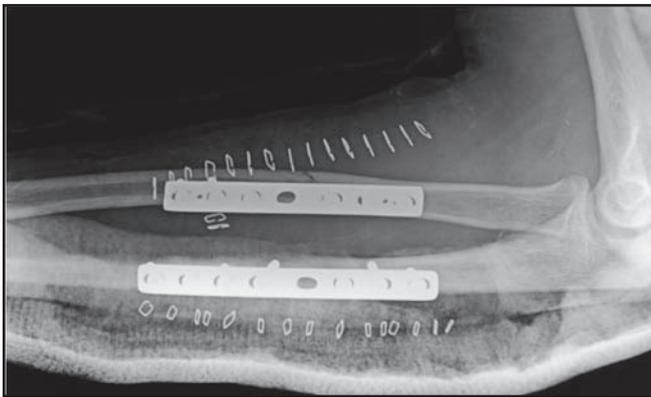


Fig. 2. Immediate post operative lateral view showing reduced elbow joint and forearm fixed with DCP.

dislocation, which is a Monteggia's fracture dislocation, is a common injury in a pediatric age group.³

Posterior dislocation of elbow with isolated fracture of single bone of the forearm is a common injury. However both bones forearm fracture with ipsilateral elbow dislocation is rare. Most reports describe Monteggia or Galeazzi lesion together with elbow dislocation.³ Our case describes a unique Monteggia-equivalent injury. Only a few similar cases have been reported in literature.⁴⁻⁶ Elbow dislocation needs early mobilization generally after 3 weeks. Whereas, open reduction and internal fixation of shaft needs protection till they unite. Gradual supervised range of motion of elbow should be started to get better result in such injuries. We started passive range of motion of elbow after 3 weeks and achieved near normal range of motion after 6 weeks of injury.

The usual mode of injury in such fractures is fall on the ground with outstretched hand.⁷ We assume, our patient most likely had a posterior dislocation first. Then, both bones of the forearm fractured indirectly while the elbow

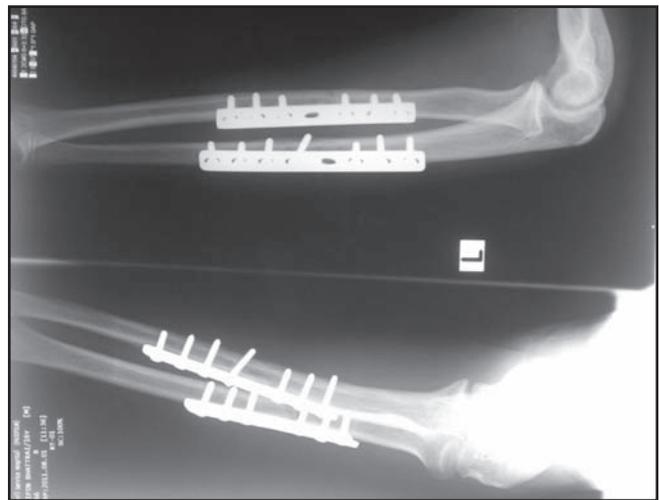


Fig.3. Three months post operative X-ray showing healed fracture and reduced elbow

was in extension, the forearm in hyperpronation and the wrist in radial deviation.

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