

Divergent Pattern Of Carpometacarpal Joint Dislocation Of The Ulnar Four Fingers Complicated With Compartment Syndrome: A Case Report

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INTRODUCTION

Carpometacarpal joints dislocation is an uncommon and easily missed with little reported cases in the literature. It has been estimated that less than this injury accounts for less than one percent of the total injury involving the hand, with volar dislocation being rarer than dorsal dislocation. These injuries involve high-energy mechanism and has been described in boxers and motorcyclists and the diagnosis of carpometacarpal joint dislocation is commonly missed without high index of suspicion. Failure to diagnose such injury will result in severe debility including chronic painful arthritis and reduced grip strength. Due to the rarity of this injury, no one treatment approach was advocated with clear advantage.

CASE REPORT

We present a 18 year old motorcyclist, was involved in a frontal collision with a car and fell on his right hand. He complained of immediate severe pain, swelling and deformity over the wrist of his dominant hand. Radiograph of the right wrist reveals volar and radial displacement of the third to fifth carpometacarpal joint and dorsal displacement of the second carpometacarpal joint.

We performed fasciotomy of the hand, closed manipulative reduction and K-wire pinning of the second to fifth metacarpal joints under general anaesthesia after a failed attempt to reduce it under sedation. The K-wires were maintained for a total duration of 6 weeks with meticulous pin site care.



RESULTS

Secondary suturing of the wound was performed at Day 10. Repeated serial radiograph showed no subluxation of the CMC joints. At 2 months post-trauma there was no more pain and good range of motion of the wrist and all fingers were seen. We followed him up till 3 months later, when he returned to work.



DISCUSSION

The carpometacarpal joints are uncommonly dislocated as they are made of relatively strong ligaments. It is made up of the immobile second and third metacarpal bone bases and the more mobile first, fourth and fifth metacarpal bone bases. Some authors have treated the injury with open reduction, other with closed method. However, all the dislocated carpometacarpal joints reports found in the literature has been treated operatively.

CONCLUSION

Closed reduction and percutaneous pinning of dislocated carpometacarpal joints in early post-trauma cases shows good functional outcome.