

# Case Report Of Multiple Carpometacarpal Joint Dislocation In Paediatric Complicated With Median Nerve Neurapraxia

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## INTRODUCTION:

Carpometacarpal joint (CMCJ) dislocations are a set of rarely seen orthopaedic hand injuries, especially if the middle or ring finger is involved (1). Studies examining this matter are scarce and are mostly case reports (1).

## REPORT:

A 9 year old girl was a rear seat passenger when the car was involved in a traffic accident, which was hit from the side. Post traumatically she complained of pain and swelling of the right hand. Examination reveals a swollen, bruised and deformed right hand which was tender. There was numbness over the median nerve distribution. Radiography shows closed dislocation of the carpometacarpal joint of the right index, middle, ring and little finger. Subsequently, she underwent closed manipulative reduction + Kirschner-wiring of the right index, middle, ring and finger carpometacarpal joint. Check X-rays showed acceptable alignment of the carpometacarpal joints. The K-wires were removed 6 weeks post operatively. The numbness resolved, but the child suffered from right wrist stiffness



Figure 1: Initial right hand X-rays



Figure 2: Post-operative right hand X-ray



Figure 3: X-ray after removal of wires

## CONCLUSION:

The incidence of carpometacarpal joint dislocations are reported to be <1% and hence could be easily overlooked or missed (2). CMC joints are inherently stable due to the congruency of the capitometacarpal and trapeziometacarpal joints. The dorsal and volar capsular fibres of the tendino-ligamentous complex, intermetacarpal and interosseous ligaments contribute to the increased stability of (2). Hence, a high-energy trauma is usually involved, causing oedema and soft tissue swelling which might obscure the true deformity (2). Hence, high index of suspicion and good radiographs are required for the diagnosis (1). The definitive management of such injuries remains controversial as mere closed reduction often fails due to the intrinsic instability (2). Closed reduction followed by percutaneous Kirschner-wiring of the carpometacarpal joints shows overall satisfactory hand function post-operatively (1) while some studies recommend open reduction and internal fixation, which carries higher surgical risks and technical demands (2).

## REFERENCES:

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