

# The Importance of Early Diagnose Of Carpometacarpal (CMC) Dislocation : A Case Report

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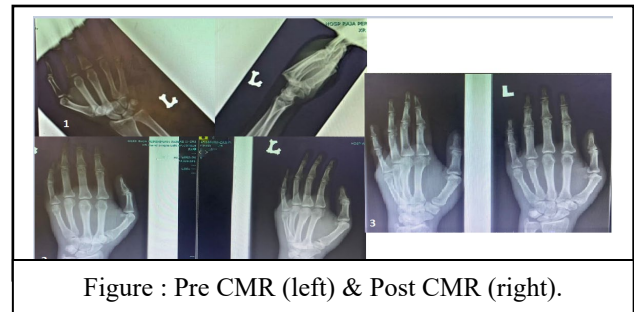
## INTRODUCTION:

Dorsal carpometacarpal (CMC) dislocation is a rare condition. Treatment is usually surgical though no strict consensus can be found upon literature review. If diagnosed early and no associated fractures are found, CMC dislocation could benefit from conservative treatment comprising closed reduction and splint immobilization.

## REPORT:

A 37-year-old man was allegedly assaulted by an unknown person; his left palm was hit by a wooden stick upon defending himself. He presented to us 4 days later with a grossly swollen left hand and wrist. The initial physical examination showed significant edema with a dorsal deformity of the right hand with no wounds or neurovascular deformity. X-ray of the hand showed a complete dislocation of the second and third CMC joints and with no associated fractures. No CT scan was done as clinical evaluation and radiographs are already able to confirm the diagnosis. Reduction of the dislocation was done in the emergency room under procedural sedation. Applying a longitudinal traction to the involved fingers with an associated pressure over the base of the dislocated metacarpals accomplished reduction. Examination and x-ray post CMR showed correction of the displacement. The wrist was then immobilized in a palmar splint with slight dorsiflexion of the wrist. Radiographs of the hand were performed during follow-up three weeks of conservative treatment showed no recurrence of CMC instability nor reduced strength of the hand. A 6-month follow-up did not show chronic pain of the hand.

A CMC dislocation diagnosed early could therefore benefit from a conservative closed



reduction under procedural sedation with splint immobilization. Percutaneous reduction could be considered if a recurrence was found at follow-up within the first ten days. Re-dislocations after treatment by closed reduction and splint immobilization have been described, occurring within two weeks of the reduction. By early diagnosis, we can prevent complications such as posttraumatic arthrosis, median nerve dysfunction, carpal instability, complex regional pain syndrome, and tendon problems. In our patient, none of these were found after follow-up

## CONCLUSION:

High clinical suspicion and adequate plain radiographs are required to diagnose precisely CMC fracture-dislocation injuries. The lateral radiograph should be considered since routine anteroposterior, and the oblique views are insufficient to make a precise diagnosis. Relevant physicians keep in the mind that surgical treatment is superior to non-surgical treatment; however, non-surgical treatment may be successful in the emergency settings

## REFERENCES:

J. G. Horneff III, M. J. Park, and D. R. Steinberg, "Acute closed dislocation of the second through fourth carpometacarpal joints: satisfactory treatment with closed reduction and immobilization," *Hand*, vol. 8, no. 2, pp. 227-231, 2013