

**Case Report****Dislocation of the Hamatometacarpal Joint: About a Rare Case**Elghoul Naoufal<sup>1\*</sup>, Mohamed Zaaf<sup>2</sup>, Abdeloihab Jaafar<sup>3</sup><sup>1</sup>Resident in Orthopedic Surgery and Traumatology, Department of Orthopedic Surgery and Traumatology, Military Hospital Mohammed V (HMIMV), Faculty of Medicine and Pharmacy, University Mohammed V, BP 10100 Rabat, Morocco<sup>2</sup>Hospital Practitioner in Orthopedic Surgery and Traumatology, Chief of Department of Surgery, Centre Hospitalier Sud Essonne Dourdan-Etampes. France BP 91 150<sup>3</sup>Professor in Orthopedic Surgery and Traumatology, Chief of Department of Orthopedic Surgery and Traumatology, Military Hospital Mohammed V, Faculty of Medicine and Pharmacy, Mohammed V University of Rabat, Morocco, BP 10100**Corresponding Author:** Dr. Elghoul Naoufal, E-mail: Naoufal.elghoul@gmail.com**ARTICLE INFO***Article history*

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**Key words:**Carpometacarpal Joint,  
Dorsal Dislocation,  
K-wire**ABSTRACT**

Pure isolated dislocation of the hamatometacarpal joint is extremely rare. Herein we reported a rare case of pure isolated dislocation of the fifth carpometacarpal joint which was successfully treated surgically. Although, the hamatometacarpal dislocations are uncommon and frequently missed, a high index of suspicion combined to adequate radiological assessment usually ascertain the diagnosis.

**INTRODUCTION**

The most common injuries of this joint are fractures–dislocations of the base of the fifth metacarpal. Pure isolated dislocation of the fifth carpometacarpal joint is extremely rare. [1] Given its rarity and its subtle abnormalities on standard radiograph it is frequently missed on the first examination which constitutes a real challenging diagnosis. When left untreated, these injuries can lead to chronic pain, stiffness and posttraumatic arthritis. [2] Herein we reported a rare case of pure isolated dislocation of the fifth carpometacarpal joint which was successfully treated surgically.

**CASE PRESENTATION**

A 35 years old man, presented to the emergency department following a fall on the ulnar border of his right hand causing total impotent and pain of the wrist. On admission, the clinical examination found edema on the dorsum of the fifth carpometacarpal joint (Figure 1); palpation and mobilization of the wrist were painful. The neurovascular examination was normal.

A radiograph of the wrist was performed that revealed a pure isolated dislocation of the fifth carpometacarpal joint (Figure 2).

Combined longitudinal traction of the fifth CMC joint with pressure over the base of the fifth CMC reduced the dislocation but it remained unstable prompting the patient to undergo surgery. Thus, under loco-regional anesthesia, while maintaining the reduction, we used a k wire fixing the fifth metacarpal to the hamate (Figure 2) after which the hand was put on an intrinsic splint.

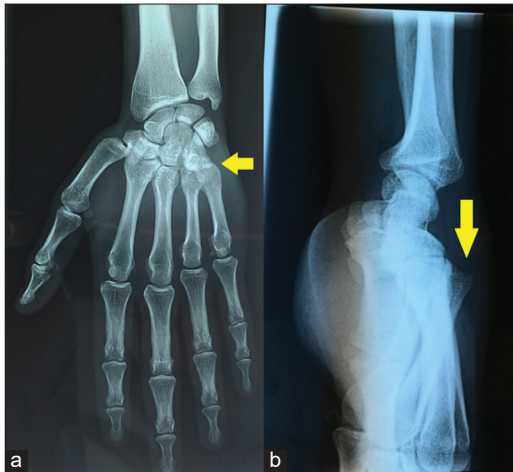
At six weeks, the splint was removed and rehabilitation was authorized. At the last follow up of six months, the fifth carpometacarpal joint was painless, with normal joint movement and no instability.

**DISCUSSION**

Carpometacarpal dislocations are rare lesions that account for less than 1% of all wrist and carp trauma. [3] The first case of isolated dislocation of the fifth carpometacarpal joint was reported by McWhorter in 1918. [4] Since then, only a few cases were reported. This injury has been recognized to



**Figure 1.** Clinical aspect of the dislocation of the fifth carpometacarpal joint (arrow)



**Figure 2.** Anterior-posterior (a) and lateral (b) x-rays of the right hand revealed the isolated dislocation of the hamatometacarpal joint (arrows)



**Figure 3.** Control radiograph after fixation of the hamatometacarpal joint using a k-wire

be of two types depending on dorsal or volar displacement, which may be easily missed on routine radiographs in a trauma patient. It is usually due to an extremely violent trauma that disrupts its very solid anatomic construct. This injury, therefore, is associated with polytrauma, following a road accident or a fall from a height.

Given its rarity and its association with other lesions, it could be very easily missed which leads to delay in diagnosis and so increasing the risk of stiffness and arthritis in long term evolution. Many complications are associated

with the fifth carpometacarpal dislocation such as a fracture of hamate and ulnar nerve injury. [5] The diagnosis of this dislocation is both clinical and radiological. [6] The dorsum is swollen with minimal rotation or shortening of the little finger. Anteroposterior and lateral views are most helpful. [6] The lateral and oblique views are important for the recognition of the true extent of the lesion. Both computed tomography scan and magnetic resonance imaging are valuable diagnostic tools to ascertain this entity of lesion. [2] Its treatment is still controversial. [1] However, a reduced dislocation which remained stable could be treated conservatively whereas in the case of an unstable dislocation, as in our case, or delay in diagnosis or presentation, it becomes imperative to use k-wires for fixation after closed/open reduction. [7] On the other hand, some authors recommend a surgical fixation as a definitive treatment choice because close reduction alone is insufficient to maintain adequate stability. [8]

## CONCLUSION

Although the CMC dislocations are uncommon, a high index of suspicion combined to adequate radiological assessment usually ascertain the diagnosis. Once diagnosed, the surgical treatment is required imperatively for only the unstable dislocation to maintain adequately the stability.

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## CONSENT FOR PUBLICATION

Consent was obtained from the patient for publication of this case report and accompanying images.

## COMPETING INTERESTS

The authors declare that they have no competing interests.

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