A RARE ISOLATED FRACTURE OF BODY OF THE HAMATE

Chin Siang Leon[1], Nik Ahmad Fauzan[2], Muhammad Nizamuddin[3], Mohd Hafizi[4]

[1]Hospital Pulau Pinang, [2]Hospital Serdang, [3]Hospital Selayang, [4]Hospital Kemaman

Introduction: Fractures of the hamate are relatively rare, constituting only 2% of all carpal fractures, in contrast with the scaphoid which accounts for 70%. They are classified as type I when they involve the bone's hook and type II when they involve its body. Type II fractures are usually caused by direct trauma and are extremely rare, even more so when it is an isolated fracture, for it is difficult to injure the hamate without affecting the other carpal bones.

Discussion: A 20-year-old right hand dominant man had alleged domestic injury while trying to block a door in fisting position. Post trauma, patient complained of pain and swelling of right wrist. On examination, he had deformity over dorsum aspect of base of 5th metacarpal bone with tenderness. On X-ray of right wrist AP view showed there is a step off over third arc of Gilula's Line, lateral view showed there is a step off over dorsum of hamate bone. CT showed comminuted fracture body of hamate. Conservative treatment was initiated with closed manual reduction and applied on ulnar gutter. During follow-up at 4 weeks, patient claimed pain reduced markedly. On X-ray, there was no evidence of further displacement, with presence of fracture callus. Ulnar gutter was removed and started on rehabilitation exercises.

Conclusion: Fractures of the hamate are rare, it is important to be able to suspect a carpal bone fracture based on the mechanism of injury, local tenderness, and physical examination. CT is recommended to properly characterize the fracture. The choice of treatment depends on the degree of fracture comminution, fracture stability, and joint involvement. Immobilization should be considered as primary treatment, followed by operative treatment when conservative treatment is not effective, intra-articular fractures or nerve deficit is present.