

LISFRANC INJURY OF HAND?: A CASE REPORT OF COMPLEX VOLAR CARPOMETACARPAL DISLOCATION OF HAND

Mohd Afiq Muhamed Fuad¹, Mohd Reza Mohd Aridz¹

¹Hospital Sungai Buloh

Introduction: Carpometacarpal (CMC) dislocation of hand is uncommon compared to lunate and perilunate dislocation. It represents a complex heterogeneous group of injuries resulting from high-energy trauma to the wrist.

Discussion: 18 years old presented to the emergency department with a complaint of left-hand pain and swelling after a motor vehicle collision. Clinical examination revealed a deformed hand with gross swelling and tenderness at the carpometacarpal region. Plain radiograph showed complex fracture-dislocation of 2nd to 4th carpometacarpal. There were avulsion fractures between the bases of the 3rd, 4th, and 5th metacarpals, similar to a fleck sign seen in Lisfranc injury to the foot. Computed Tomography (CT) further revealed volar displacement with comminuted and dislocated based on 2nd and 3rd metacarpal. Reduction via the closed method was unsuccessful. Open reduction was performed under general anaesthesia. Reduction of 3rd carpometacarpal allows other dislocation to fall back in place mimicking keystone placement in Lisfranc injury. Kirschner Wire was kept for 6 weeks and post-removal revealed a fair hand function (Michigan Hand Outcome) at 2 months post-operative with the only limitation in the full ability to make a complete fist.

Conclusion: Volar carpometacarpal joint fracture-dislocation has its versatility in the presentation. Due to its strong articulation and uniqueness, it produces a keystone relationship with other CMC joints. CMC joint fracture-dislocation should be considered on careful examination of the hand injury, in addition to true lateral X-ray of wrist and hand. Addressing the injury early will result in excellent function.