

## A RARE CASE OF TRAUMATIC MULTIPLE CARPO-METACARPAL DISLOCATION

Harrison Wh Danapala<sup>1</sup>, Collin Looi Seng Kim<sup>1</sup>, Ng Tiong Soon<sup>2</sup>

<sup>1</sup>Universiti Putra Malaysia, <sup>2</sup>Hospital Serdang

**Introduction:** Carpometacarpal joints dislocation are rare, accounting for less than 1% of hand injuries<sup>1</sup>. It is commonly associated with high-energy trauma particularly involving axial loading<sup>1,2</sup>. Failing of prompt diagnosis and management often results in functional impairment and chronic pain.

**Case Report:** A 30-years old, right hand dominant male presented with left hand pain following a motor vehicle accident. His left hand & wrist was swollen & tender, with a wound at the palm. Distal circulation & sensation was otherwise intact. Plain radiographs of left hand showed volar dislocation of 2nd, 3rd & 4th carpometacarpal (CMC) joints. There were no fractures. Closed manipulation and reduction (CMR) was attempted but failed necessitating wound debridement and K-wiring. Intra-operatively, 5th CMC joint was also deemed unstable necessitating K-wiring.

**Discussion:** Concurrent CMC joint dislocations are commonly missed due to soft tissue swelling & overlapping of bones in radiograph. In plain radiograph AP view, parallel M-line will be disrupted & overlapping of bones may be seen. Volar, dorsal or divergent displacements are best appreciated in a true lateral radiograph. CMR without k-wiring often result in inadequate stabilization, therefore surgery is commonly required. During surgical reduction, third CMC joint should be addressed first as this acts as keystone for both transverse & longitudinal hand arches. After 6 weeks of immobilization, physiotherapy must be started following wire removal.

**Conclusion:** Multiple CMC joint dislocation can be easily missed, therefore thorough clinical assessment with a high index of suspicion & proper radiographs are paramount in establishing diagnosis. Prompt treatment & subsequent physiotherapy is necessary to reduce morbidity.