

## Missed compartment of hand following Multiple Metacarpal Fracture in a child

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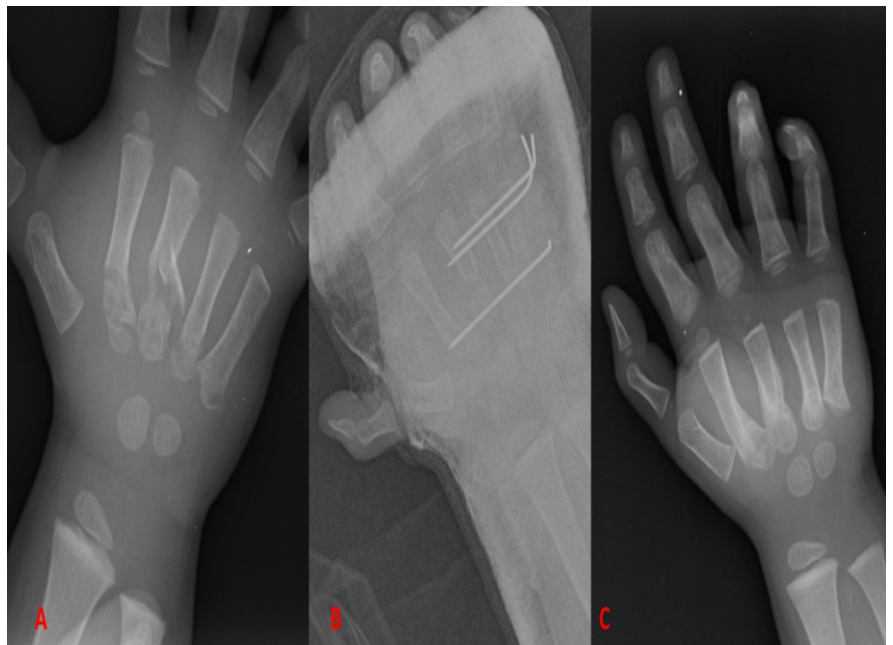
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### Clinical Images



**Figure 1:** Clinical photograph of hand with tense swelling – compartment syndrome



**Figure 1:** Radiograph of right hand showing [A] multiple metacarpal fracture involving the 2<sup>nd</sup> metacarpal shaft, 3<sup>rd</sup> metacarpal shaft, 4<sup>th</sup> and 5<sup>th</sup> metacarpal base. [B] Post-operative fixation with k-wires. [C] X-ray at six months showing healed metacarpal fracture.

### Description

Metacarpal fracture commonly occurs following trauma. It is frequently missed in children. Compartment syndrome following multiple metacarpal fracture is an expected and dreaded complication. We report a case of multiple metacarpal fracture involving the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> in an one year old child. Child had sustained the injury following fall of a heavy object over the hand. Following injury the child had minimal swelling of hand and restriction of movements. Mother took the child to a primary health care centre and was advised conservative management in the form of ice packs and analgesics. The swelling increased and the hand became tense. Child was unable to use the hand for activities. Child presented to us at the emergency department. Clinically suspected compartment and radiological evaluation showed multiple metacarpal fracture.

Child was taken under emergency and fasciotomy was done. In the second sitting split skin grafting of the fasciotomy wound. K-wire fixation of the metacarpal fracture was done. K-wires were removed at three weeks interval and the fasciotomy wounds were healed well with Split skin graft taken up well. Intense Mobilisation was started. At present six months follow up, child is having good hand function.

Importance of this case is the awareness of this common and dreaded complication by the medical community following a hand injury. Missing compartment syndrome can amount to medical negligence and lead to various deformities of hand.

## References

1. Wajdi W Kanj, Melissa A Gunderson, Robert B Carrigan and Wudbhav N Sankar. Acute compartment syndrome of the upper extremity in children: diagnosis, management and outcomes. *J Child Orthop*. 2013 Jun; 7(3):225-233.
2. Magdalena santosa, Fatimah indarso, Agusharianto, Sylvianti M Damanik *et al*. Compartment syndrome in a neonate. *Paediatrica Indones* 2001; 41:253-255.

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