

My 2-Year-Old's Thumb Fracture Healed Incorrectly. Should I Get It Fixed?

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INTRODUCTION:

Proximal phalanx fractures are the most common hand fracture in children. Minimally or non-displaced are treated with immobilization with good outcomes. However, accurate reduction and internal fixation is the only appropriate management for displaced and unstable fracture if failed to closed manipulative reduction and cast in any age group. The incidence of non-union in a phalangeal fractures is less than 1%. Here we reported a case of non-union over proximal phalanx of right thumb treated with open reduction, osteotomy and k-wire.

REPORT:

A 2-year-6-months-old boy was referred to our centre after 1 month post trauma with complain of deformity over right thumb. He was diagnosed with fracture over proximal phalanx of right thumb and was treated conservatively initially.

A corrective osteotomy with K-wire was done at 4 months post trauma due to non-union of fracture and deformity over right thumb. The wire was kept for 1 month. Post-operatively the fracture united well and patient gained good alignment and range of motion over thumb.



Figure 1: Right hand xray at 1-month post-trauma



Figure 2: Fracture united with good alignment at 6 months post corrective osteotomy and K-wire

DISCUSSION:

In proximal phalanx fracture, the lack of tendon attachments to the distal part of proximal phalanx allow the fragment became rotated and displaced after injury. These displaced fractures are best done within a few days of injury after failed closed method. Mal-reduction posted risk of malunion or non-union. The k-wire is better to keep for 4-6weeks of duration as re-displacement had been reported while k-wire taken out at 3 weeks post fixation.

CONCLUSION:

Early closed/open reduction and fixation is advocated in displaced proximal phalanx fractures if failed the closed method. Non-union/malunion is best treat with open reduction, corrective osteotomy and k-wire. Bone grafting need to be consider if gap non-union occurs.

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