

OUTCOME OF NON-OPERATIVE TREATMENT OF T-TYPE SUPRACONDYLAR HUMERUS FRACTURE IN CHILDREN: A CASE SERIES

Raimi Adam Chen¹, Johan Abdul Kahar², Ahmad Anuar Sofian², Muhammad Najmi Ab Ghani¹, Imma Isniza Ismail², Anand Sobhraj Devnani²

¹Hospital Serdang, ²Universiti Putra Malaysia

Introduction: Supracondylar fracture of humerus with an intra-articular split; resembling T-type fracture pattern (OTA/AO 13-E/4.2) are uncommon and requires early operative intervention. In cases which associated with poor soft tissue condition, it is appropriate to delay surgery. We present 2 cases of this type of fracture that managed non-operatively due to associated poor soft tissue condition.

Methodology: Two children aged 9 and 10 years old presented with elbow pain after falling from monkey bar. Clinically, there were marked swelling and bruises overlying the fracture without neurovascular compromise. Radiographs showed T-type supracondylar humerus fracture with intra-articular split. Both children were treated with lateral traction, with the shoulder placed at 100 to 110 degree abduction along with elbow flexion at 30 degree and slight valgus. Regular radiographs and inspection were done to maintain fracture alignment and proper soft tissue healing. After 2 weeks, the limb was immobilized in plaster slab in elbow 30-degree extension with slight valgus.

Discussion: Serial radiograph exhibit satisfactory alignment and bone remodeling. There was no soft tissue infection seen in both children. Both children were able to start light function as early as 4 weeks and lifting objects like school bags at 2 months. At one year, range of motion of the the elbow maintained to be good. Upper limbs appeared mild recurvatum with slight loss of normal carrying angle, otherwise both children and their parents were pleased with the result.

Conclusion: Non-operative treatment of T-type supracondylar humerus fracture is an option especially in patient with poor soft tissue condition. With good care, impressive clinical outcome is seen in these patients without development of major complications.