

A Case Report: Lateral External Fixation As Alternative Surgical Method In Supracondylar Of Humerus Fracture Gartland III

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INTRODUCTION:

Supracondylar fracture of the humerus is the most common fracture around the elbow in children. In most cases, fixation is achieved with use of Kirschner wires. One of the problems with this fixation is the risk of persistent instability¹. If wires are not placed properly, rotational control may not be achieved, resulting in displacement and cubitus varus¹.

MATERIALS & METHODS:

A 5-year-old boy alleged fall and sustained closed fracture supracondylar left humerus Gartland III. Initially, close manipulative reduction and Kirschner wire was done. However fracture site was unstable with rotational deformity. Revision of operation was done with close manipulative reduction and lateral external fixation. Reduction was achieved using the pin as joystick, thus preventing the need for open reduction.

RESULTS:

With stable fixation, we eliminated the use of cast. The patient was discharged with early elbow mobility, resulting in shorter rehabilitation period and better management of the skin and soft tissues. The external fixation was removed after 6 weeks. There was no evidence of pin site infection. The patient achieved good recovery as evidenced by full range of movement in 10 weeks.



Figure 1: Preoperative x-ray

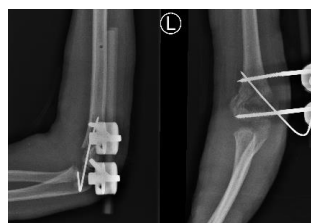


Figure 2: Immediate post operative x-ray



Figure 3: 6 weeks post operative x-ray

DISCUSSION:

The management of supracondylar humerus fracture type III remains a challenge. In our experience with the use of lateral external fixator resulted in good functional and excellent cosmetic outcome. The main goals are to avoid the need for an open reduction and to achieve fracture stabilization, thus preventing secondary displacement with its risk of malunion. This treatment, allows early mobility of the elbow, demonstrated by the good active range of elbow movement, thus reducing rehabilitation time.

CONCLUSION:

The use of a lateral external fixator seems to be a safe and promising alternative for the treatment of displaced supracondylar fractures of the humerus.

REFERENCES:

1. Theddy Slongo et al. Lateral External Fixation - A New Surgical Technique for Displaced Unreducible Supracondylar Humeral Fractures in Children. The Journal of Bone and Joint Surgery 2008;90:1690-1697