The Outcome of Percutaneous Lateral Pinning of Displaced Supracondylar Fracture of the Humerus in Children

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Abstract

Background: Supracondylar humeral fracture in children is the most frequent one in the first decade of life. Closed reduction and percutaneous pinning has been adopted as the treatment of choice, and the outcome has relied mainly upon the perfection of reduction and the stability of fixation. Many configurations of pinning have been used.

Objective: To evaluate the efficacy and safety of the closed reduction and lateral pinning in treating displaced supracondylar humeral fracture.

Patients and Methods: Thirty-eight patients of extension type Gartland class III displaced SCHF in children aged (1.5-13) years had been included in this study in the period from April 2014 to July 2016 all of them had been treated by closed reduction and lateral percutaneous pinning. They were (26) males (68.4%) and (12) females (31.6%) and the mean age was 5.8 years. The left side was injured in (25) patients (65.8%) and the right side was involved in (13) patients (34.2%). All cases had been operated within the first 24 hours of injury.

Results: Stable and satisfactory reduction had been obtained in all cases except one, in whom failure of reduction occurred postoperatively. All cases regained full-range of extension and flexion of elbow movement after about 3-4 months. Baumann’s angle was (76± 2.5) and (74±0.5) on the injured and normal sides respectively. In all cases the carrying angle of elbow was within normal limit. No neurovascular complication had been noted in all the cases.

Conclusion: Percutaneous pinning using the lateral configuration technique found to be stable and safe method.

Key words: Supracondylar Humeral fracture, Closed reduction, Lateral pinning.

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