

## عنوان مقاله:

Closed Reduction versus Open Reduction and Pin Fixation in Pediatric Type III Supracondylar Humeral Fractures

## محل انتشار:

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## خلاصه مقاله:

Background Supracondylar humeral fractures constitute about 60% and 13% of all pediatric elbow and pediatric skeletal fractures, respectively, with a peak incidence in the 5-7 years age group. The aim of this study was to evaluate and compare closed reduction with open reduction and pin fixation in type III supracondylar humeral fractures in children younger than 12 years. Materials and Methods: In this retrospective study, all children under 12 years of age with type III supracondylar humeral fractures who referred to two teaching hospitals in Mashhad, Iran, between March 2017 and March 2019 were included. Patients were divided into two groups: open reduction and fixation with pin (OR) (n= 30), and closed reduction and percutaneous pinning (CR) (n=15). The method of surgery for each individual patient was chosen based on the surgeon's preference. For patients who had a follow-up of at least 6 months, subsequent elbow radiographs were requested. Results: No significant differences were observed between the two groups in terms of range of motion of the fractured limb and radiographic angles at follow-up ( $p > 0.05$ ). However, operation time was significantly shorter in the CR group compared with the OR group ( $p < 0.001$ ). Three patients (6%) had cubitus valgus (all of whom were in the OR group [10%]), and two patients (4%) had cubitus varus (one patient in the OR group [3.33%] and the other in the CR group [5%]). Wound dehiscence was only seen in one patient in the OR group (3.33%). Conclusion Based on the results, there was no significant difference between the open and closed reduction methods in type III supracondylar humeral fractures with respect to elbow function and union of the fracture

## کلمات کلیدی:

Fracture, Pediatric, Reduction, Supracondylar humeral

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