

COMPARISON BETWEEN CROSSING WIRES VERSUS TWO LATERAL WIRES IN THE MANAGEMENT OF DISPLACED SUPRACONDYLAR FRACTURE OF THE HUMERUS IN CHILDREN

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Background: Closed reduction and percutaneous pin fixation is considered standard management for displaced supracondylar fractures of the humerus in children. However, controversy exists regarding whether to use an isolated lateral entry or a crossed medial and lateral pinning technique.

Objectives: To compare between the crossing wires fixation and two lateral wires in management of the supracondylar fracture of the humerus in children.

Patients & Methods: Study population included all children with supracondylar humerus fractures attending the emergency department in Suez Canal University Hospitals and Ismailia General Hospitals in the period from Jan' 2016 to Sep' 2016.

Results: The adequacy of the reduction postoperatively (stability of fixation) was assessed according to Skagg's criteria depending on changes in Bauman's angle. In crossing wires method, 85.8% of patients showed less than 6° changes. However, in the lateral wires method, 42.9% of patients showed less than 6° changes. There were significant difference between two groups (P value=0.0353). There was no ulnar nerve injury in both groups. Clinically, there were no significant differences between the two groups (P value=0.217).

Conclusion: The crossed pin configuration method provides better stability than the lateral pin configuration method in management of supracondylar fracture of the humerus in children and the risk of ulnar nerve injury can be avoided by making a small incision over the medial epicondyle for placement of the medial wire in all cases.

Biography

Mohamed Ahmed Hassan has completed his Masters' Degree in Orthopaedic Surgery from Suez Canal University. He is a Specialist of Orthopaedic Surgery at the Ministry of Health. He has spent 2 years of working as a Visitor Resident in Orthopaedic Department, Suez Canal University hospitals and 3 years as Orthopaedic Resident at Ismailia General Hospitals, Ministry of Health, Egypt. He has attended 30 training courses in basic orthopaedic principles and different subspecialties of orthopaedic surgery. He is a Bronze Member of AO foundation.

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