

LATERAL EPICONDYLAR FRACTURES IN THE PEDIATRIC POPULATION: AN ASSESSMENT OF PATIENT REPORTED OUTCOMES

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Background: Pediatric lateral epicondylar fractures are not well studied, with just a few case-reports in literature. There is no consensus on management strategies and no long-term data to assess outcomes in pediatric lateral epicondylar fracture. The purpose was to describe the largest case series of pediatric lateral epicondylar fractures for potential management strategies and long-term patient outcomes.

Materials/Methods: IRB-approved retrospective case series included patients under the age of 18 years diagnosed with lateral epicondyle fractures based on clinical exam and radiographic findings. Patient reported outcome measures (PROM) were assessed using the QuickDASH score and associated functional variables.

Results: was sports-related (36.4%) while other were due to high-energy falls such as falls off bicycles, stairs, or hover boards. 72.7% were nondisplaced fractures. 12 (54.5%) patients had associated injuries, 6 (27.3%) elbow dislocations, four (18.2%) isolated coronoid process fractures, and two (9.1%) isolated ligamentous injuries. Three (13.6%) patients presented with concomitant elbow fractures, most commonly the medial epicondyle. Primary treatment was rigid immobilization in long arm cast or splint for 4 weeks. Physical therapy was necessary for 36.4% of patients. Three(13.6%) patients required operative intervention, two for symptomatic nonunion and the other for LCL reconstruction. 77.2% of patients had a mean follow-up time of 3.1 years, patients had Quick DASH score of 6.4 compared to mean 10.9 in general US population.

Conclusions: Lateral epicondylar fractures are rare with variable means for injury leading to axial load and valgus directed force on a supinated forearm. Based on our case series, most fractures are nondisplaced, for which conservative management in a long arm cast is recommended. Care should be taken to evaluate for associated fractures and ligamentous injuries with displaced high-energy injuries which may require operative intervention or lead to nonunion. Patient-reported outcomes indicate that with appropriate treatment, this injury does not significantly affect long-term function.

Images / Graph / Table

