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Isolated Lateral Epicondyle And Trochlea Fracture

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INTRODUCTION:

Elbow fractures is the most common type of fracture in paediatric. Lateral condyle fracture is 2nd most common after supracondylar humerus in elbow fracture (15-20%).

REPORT:

12 years old boy presented to Emergency Department with history of alleged fall directly on right elbow from bicycle, sustained pain and swelling over right elbow with limited ROM.

Clinical and radiological assessment shows lateral epicondyle fracture. CMR and above elbow backslab done however unacceptable. CT reported as fracture lateral epicondyle extending to trochlea (Milch II).

Patient underwent open reduction (anterolateral approach) and screw fixation. Intraoperatively, isolated fracture over lateral epicondyle and trochlea, was reduced and fixed. Trochlea fragment was malrotated anteriorly. Anatomical reduction using multiple K-wire achieved and fixed with 2 headless cannulated screw.

Above elbow backslab was applied for 2 weeks and started on physio for elbow range of motion. 2 months post operation, patient range of movement achieve 20-100, with no deformity and neurological deficit. 3 months post operation, fracture had united.

CONCLUSION:

Lateral epicondyle fracture commonly associated with trochlear fracture. However, easily missed on x rays (AP and lateral view). Internal oblique view was more accurate in demonstrating fracture gap and pattern.

A study reported that surgical delay more than 24 hours post injury did not influence the functional results. Reduction using 2 Kirschner wire percutaneously is effective treatment for unstable displaced lateral epicondylar fractures. If displacement exceeds 2 mm, open reduction and internal fixation is recommended.

Anatomical reduction is mandatory in all intra-articular fracture especially in paediatric elbow fracture. Overall reported union rates for these injuries are 91%. Malunion, cubitus varus and avascular necrosis are recognized complications following surgery.

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