

Adolescent Distal Clavicle Fracture: To Fix or Not to Fix

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INTRODUCTION:

Clavicle fracture are the commonest fracture in skeletally immature group, accounting for approximately 15% of all fractures¹ and 10% of paediatric clavicular fracture. Injuries to the distal clavicle in a child with an immature skeleton are more likely to be physeal fractures than true acromioclavicular separations, as fusion of the distal epiphysis is not complete until the mid-twenties.¹

REPORT:

A 11-year-old boy presented to our centre following a fall while playing seesaw with left shoulder directly impact on the ground. Post trauma sustained swelling of left shoulder with limited range of movement. He sought medical attention in district hospital and referred to outpatient clinic while immobilizing with armsling.

At day 7 of injury, radiograph noted superiorly displaced fracture epiphyseal plate lateral end of clavicle. He underwent open reduction and plating of left clavicle at 10th day post trauma. Intraoperatively noted soft callus formation. Fracture was preliminary reduced and held with Kirschner wires and subsequently plating of the clavicle done with 1/3 tubular locking plate.

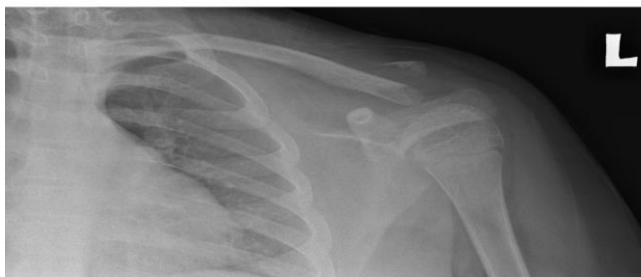


Figure 1: Xray Left Shoulder Pre-op

He was followed up regularly at first, third and fifth months. Fracture united at 3rd

month, with no tenderness over the injured site and good range of movement of shoulder.



Figure 2: Xray left shoulder post plating

Magnitude of superior displacement of fracture has higher risk of deformity and possible nonunion. The excellent remodeling capacity in immature bone allows most distal clavicular injuries to be treated nonoperatively. Displaced clavicle fractures in adolescents are frequently treated with surgery to avoid high risk of nonunion, functional deficit, aesthetic reason, shoulder deformity and pain.

CONCLUSION:

Plate fixation results in excellent outcome and no deformity post-surgery however removal may need to be done later.

REFERENCES:

1. Gonçalves Hm, G. B., Rios Gc. 2017. A Rare Case of a Distal Clavicle Fracture Type IV-Like Acromioclavicular Joint Injury in A Child: Case Report and Literature Review. *Journal of Orthopedic Research and Therapy JORT-152*: