

Transolecranon Approach with Chevron Osteotomy for Optimal Exposure in a Type-C Distal Humerus Fracture

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INTRODUCTION:

Complex intraarticular distal humerus fracture is difficult to treat and warrants open reduction and internal fixation (ORIF). Surgical approaches of distal humerus are debatable. We chose transolecranon approach with chevron osteotomy in our patient with an AO classification type-C distal humerus fracture for better surgical exposure.

REPORT:

A 90 years old lady had a closed left distal humerus type-C fracture due to a fall. She is active and had good pre-morbid. Left upper limb neurovascular was intact. Plain radiograph was taken and we proceeded with CT scan of the left elbow. It was a type-C2 left distal humerus fracture (AO classification).

Our treatment choice was ORIF with bilateral locking plate fixation. A posterior incision was made and we exposed the fracture site via transolecranon approach and chevron osteotomy was performed. A posteromedial and a lateral locking compression plate were used. The olecranon osteotomy was fixed by tension band wire. Post-operatively, neurovascular of the left upper limb was intact.

Common posterior surgical approaches to the distal humerus are triceps splitting, triceps reflecting and transolecranon.¹⁻⁴ Transolecranon osteotomy provides the greatest exposure to the articular surface.^{1,2} Type-C distal humerus fracture usually requires optimal exposure for adequate fixation. However, there is a risk of ulnar olecranon non-union, malunion and hardware irritation.² Despite these, certain study reported satisfactory patient outcome.³

CONCLUSION:

Transolecranon osteotomy is a safe surgical approach for type-C distal humerus fracture which provides optimal exposure.



Figure 1: Left Elbow Plain Radiograph



Figure 2: CT Left Elbow 3D Reconstruction



Figure 3: Post Fixation Radiograph

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