

Single Posterior Incision In The Treatment Of Complex Elbow Fracture Dislocations: A Case Series

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INTRODUCTION:

We discuss the use of a single posterior incision for the treatment of complex elbow fracture dislocations.

MATERIALS & METHODS:

Seven complex elbow fracture dislocations were treated between 2015 and 2017.

The operated limbs were draped free and supported at chest level or across the trunk. A longitudinal incision was made starting proximal to the olecranon, extending distally along the ulna. Medial and lateral subcutaneous flaps were raised. Ulnar fractures were addressed via the extensor and flexor carpi ulnaris (ECU & FCU) interval. Radial head arthroplasty (RHA) was done through the ulnar fracture window, and a Kaplan interval was developed for radial head ORIF.



Figure 1: Approach used in Patient 4

RESULTS:

No	Diagnosis	Procedure
1	Closed right proximal ulna #, RH# (Mason IV)	ORIF ulna, RH excision
2	Closed terrible triad right elbow (Coronoid type III, Mason III)	ORIF coronoid, RHA, lateral complex reconstruction
3	Closed transolecranon # dislocation, RH# (Mason II)	ORIF ulna and RH

4	Closed right Monteggia #, RH# (Mason IV)	ORIF ulna, RHA
5	Closed right Monteggia #, RH# (Mason III)	ORIF ulna, transosseous RH fixation
6	Closed left Monteggia #, RH# (Mason IV)	ORIF ulna, RH excision
7	Closed left Monteggia #, RH# (Mason III)	ORIF ulna, RH excision

Table 1: Legend: #- fracture, RH- radial head

Mean age was 53.8 (± 12.5), mean follow up was 16.7 (± 5.52) months, and mean Mayo Elbow Performance Score (MEPS) at latest follow up was 81.7 (± 2.35). There were no post-operative wound complications.



Figure 2: Pre and post-operative films of Patient 4

DISCUSSION:

While some authors propose separate medial and lateral windows, we have achieved good results using the single posterior approach.

CONCLUSION:

The proposed approach is, versatile, extensile and can be used to address the various injuries in complex elbow fracture dislocations.

REFERENCES:

1. Jones A, Jordan R. Complex Elbow Dislocations and the “Terrible Triad” Injury. The Open Orthopaedics Journal. 2017;11(Suppl-8, M7):1394-1404.