

A Case Report Of Ipsilateral Distal End Radius And Olecranon Fracture, Two Different Biomechanical Causes In The Same Patient

Hasni MH, Wan KL, Khoo SS, Zuki ZZM

Department of Orthopaedic & Traumatology, Sungai Buloh Hospital, Jalan Hospital, 47000 Sungai Buloh, Selangor, Malaysia.

INTRODUCTION

Incidence of concurrent ipsilateral distal end radius and olecranon fractures is rare. Only one literature was found to report the incidence¹. We would like to report a case in our center.

CASE REPORT

A 61 years old gentleman fell from four feet height and landed on his outstretched hand. He sustained closed comminuted intra-articular fracture of left distal end right radius (Fernandez type III or AO 23-C1.2) and closed unifocal fracture of left olecranon (Schatzker type C or AO 21-B1.1). There was no wound and no neurovascular injury.

His distal radius was treated with volar distal radius locking plate with midline approach. His olecranon was treated with tension band wiring technique via posterior approach. Post operatively he was started on passive range of motion as tolerable for his elbow and wrist.

DISCUSSIONS

A distal radius fracture is commonly due to a fall on an outstretched hand and the wrist in extension with an axial load. The force from the impact was transmitted through the radial and intermediate columns of the wrist, which caused a three parts fracture pattern i.e. the radial styloid and two pieces at the lunate fossa².

The olecranon unifocal fracture pattern was due to the hyperflexion of the elbow with a blunt force hitting the olecranon. The strong triceps muscle pull the proximal fragment sharply as the cortex broke³.

These two types of fractures are resulted from different positions of the upper limb at the point of trauma forces. We postulate that this gentleman has probably landed on his outstretched hand and subsequently hyperflexed his elbow with the olecranon hitting into a blunt object, likely the ground.



Figure 1: Left distal radius fracture with intra-articular involvement: pre- (A) and post fixation (B).



Figure 2: Left olecranon fracture: pre- (C) and post fixation (D).

CONCLUSION

Ipsilateral distal and radius and olecranon fracture is rare due to different mechanisms of trauma forces. Careful history taking and examination of the joint above and below fracture site cannot be over-emphasized to avoid missing concomitant injuries.

REFERENCES

1. Cengiz Ö, Polat G, Karademir G, Kara D, Erdil M. Ipsilateral olecranon and distal radius fracture: A case report. *International Journal of Surgery Case Reports*. 2015;6:194-197.
2. Kojima K, Velkes S. Proximal forearm - Diagnosis - AO Surgery Reference [Internet]. www2.aofoundation.org. 2017 [cited 15 January 2017]. Available from: <https://www2.aofoundation.org/wps/portal/surgery?showPage=diagnosis&bone=R&adius&segment=Proximal>
3. Fricker R, Jupiter J, Kastelec M. Distal forearm - Diagnosis - AO Surgery Reference [Internet]. www2.aofoundation.org. 2017 [cited 28 January 2017]. Available from: <https://www2.aofoundation.org/wps/portal/surgery?showPage=diagnosis&bone=Radius&segment=Distal>