

'The Minimalist'-Percutaneous Elevation Technique of Distal Radius Intermediate Column Impaction Fracture: A Case Report

¹Masilamani, Jedidiah; ¹Chaw SK; ¹Tan HL; ¹Adnan YK

¹Orthopaedic Department, University Malaya Medical Centre, Lembah Pantai, Kuala Lumpur, Malaysia

INTRODUCTION:

Impaction fractures of distal radius articular surface are challenging to achieve satisfactory reduction with optimal outcome. Intermediate column consists of lunate fossa, sigmoid notch and the medial ulnar column as described by Jakob et al. There are various techniques described and here we would like to report a technique of elevation adopted with good results.

REPORT:

We report a 32 year old male who presented with pain and swelling of wrist following accident with tenderness over the distal radius and radiograph which showed distal radius impaction fracture of the intermediate column. Patient was counselled and proceeded with plating of the distal radius. Intraoperatively, longitudinal traction was applied distal to the fracture and longitudinal incision about 1 cm made proximal to the lister's tubercle with dissection till the bone. 2.5mm drillbit used to purchase the dorsal cortex to make cortical window and 2mm k-wire attached to T-handle was manoeuvred through the window to elevate the depressed column.

After confirming the reduction under, 1.6mm K-wire inserted from lateral to medial cortex at the subchondral level to raft the elevated fragment.

Following that, distal radius was approached via modified Henry incision and plating was done in the usual manner with final reduction being acceptable. Post operatively, patient was well and stable with early range of motion commenced. During clinic follow ups, serial radiographs revealed healing with excellent range of motion of the wrist.



Figure 1: Pre elevation



Figure 2: Post elevation

Eight week post operatively, patient was able to carry out his activities of daily living and patient was satisfied with the outcome of surgery.

CONCLUSION:

Percutaneous elevation of intermediate distal radial column and rafting with K-wire fixation is a simple and pragmatic technique in achieving reduction with minimal soft tissue injury at the same time resulting in satisfactory functional outcome.

REFERENCES:

1. Jaiswal et al, Chin J Traumatol. 2018;21(5):304-307.