

# Radial Nerve Palsy Post CMR In A Distal Third Humerus Fracture – A Case Report

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## INTRODUCTION

Radial nerve injury is a common complication of distal humerus fractures caused either by the injury itself or during manipulation. Holstein Lewis fracture is a fracture of the distal third humerus with radial nerve palsy, constituting 7 humeral shaft fractures. Holstein Lewis fracture can be treated non-operatively with monitoring of nerve recovery or operatively by ORIF and nerve exploration. However, post manipulation nerve palsy needs to be explored immediately.

## CASE REPORT

This is a case of a 23-year-old lady who was referred to us with a spiral fracture distal third right humerus after a fall (Fig1) without nerve palsy.

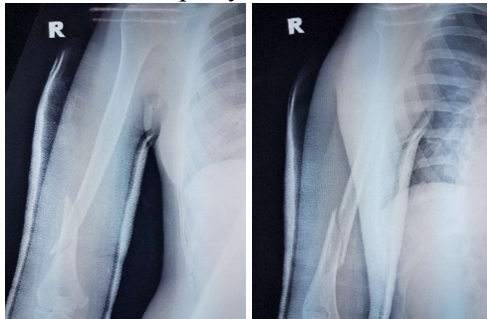


Fig 1: (a) AP & (b) Lateral view of right humerus

At our centre, CMR was done one week post trauma and she had immediately developed wrist and fingers drop, and complained of numbness over first web space. After observation for a week with no clinical improvement, ORIF and radial nerve exploration was done.

Intraoperative, noted long spiral fracture of humerus with fracture edge tenting on the radial nerve (Fig 2). The radial nerve was noted to be contused, was released and transposed.

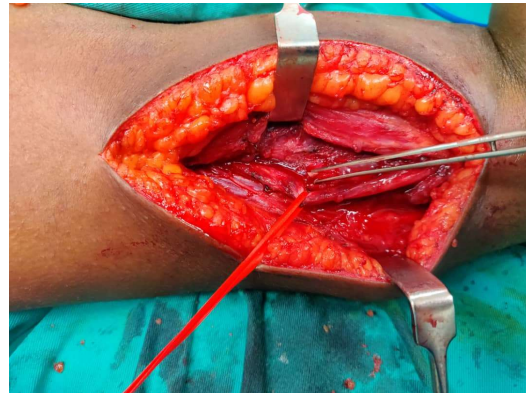


Fig 2: Radial nerve (vessel loop) directly tented by edge of fractured distal fragment (forceps)

At 2 weeks follow up, there was improvement of nerve function with active range of movement of right wrist and fingers up to about 60 degrees. Patient is still under follow up and physiotherapy.

## DISCUSSION

Radial nerve palsy of distal humerus fracture can be attributed to initial trauma, iatrogenic (post manipulation) or entrapment by callus at fracture site due to close proximity of the nerve. Immediate ORIF and nerve exploration should be done without delay for post manipulation nerve palsy. There is no role of observation for clinical improvement in such situation.

## CONCLUSION

Iatrogenic nerve palsy should be explored immediately without any delay.