

A Rare And Unique Case Of Unicortical Fracture with Plastic Deformity Of The Forearm In Adult.

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INTRODUCTION:

Plastic deformation of the forearm is commonly seen in children but at times it can also occur in adults. It's rare and is a frequently missed injury in adults that can result in significant loss of forearm rotation.

REPORT:

21-year-old man had fell with his left hand in outstretched position 4 months ago. He presented with forearm deformity and limited supination of the forearm. Xray showed unicortical fracture of distal third radius with associated bowing deformity. Therefore, surgical intervention was advised to achieved correction of deformity and improved motion.

Osteotomy of the remaining cortex and plating of left radius done. Intra-operatively, fracture line was still visible, with almost 70% of the dorsal cortex remained intact. No evidence of callus, or findings suggestive of infection. Osteotomy of the remaining cortex done and fixation done via lag screw and plating.

2 months post-operation x-ray revealed united fracture. Patients forearm deformity corrected with significant improvement of the motion.

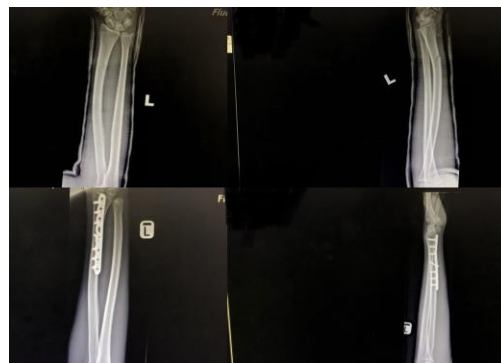


Figure 1: X-ray of pre and post fixation

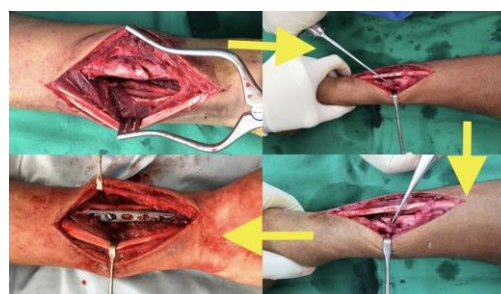


Figure 2: osteotomy and plating done to correct plastic deformity

CONCLUSION:

A simple surgical approach is beneficial and easily replicable in treating plastic deformity in adults. The crucial step is to identify these injury pattern that may lead to a persistent deformity and resulting in loss of function.

REFERENCE:

Tianhao, W., Yueju, L., Yingze, Z. *et al.* Plastic deformation of the forearm in adults: an analysis of 30 cases. *J Orthop Surg Res* **9**, 117 (2014).