

A case report



Treatment of diaphyseal non-unions of the ulna and radius

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INTRODUCTION

Non unions (NU) are a major complication of diaphyseal fractures of the forearm, with eventual variable dysfunction of the upper limb and hand which accounting for 2% to 10% of all forearm fractures. The goal of surgery is to achieve complete union of the fractures and restore the functional anatomy between the radius and the ulna, so as to obtain a normal hand function. Treatment of these NU can be challenging due to poor bone stock, broken hardware, scarring and stiffness due to long-term immobilization. The aim of this study was to evaluate the clinical and radiological results of adult forearm fractures treated with interlocking intramedullary nailing.

REPORT:

A 54-year-old lady presented with persistent pain and stiffness of left forearm for past 8 months despite treated conservatively. On examination, left forearm look deformed, tender and fracture site mobile. X-ray examination showed hypertrophy NU over both radius and ulna bone. Patient underwent open reduction and interlocking nail of left radius and ulna.

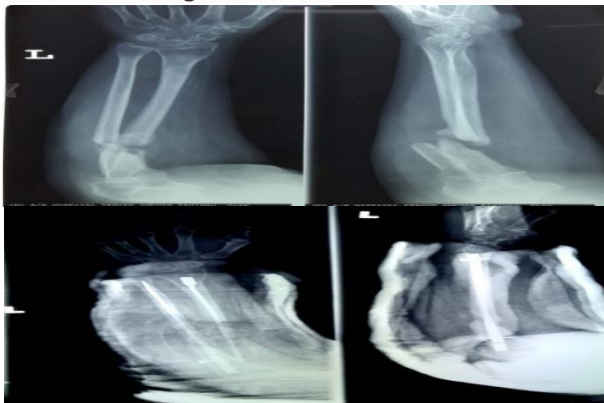


Figure 1: X-ray of left radius/ulna pre & post-operative.

DISCUSSION:

The treatment of diaphyseal forearm fractures using open reduction and plate fixation is generally accepted as the best choice in many studies. However, periosteal stripping, haematoma evacuation may result in delayed union, nonunion, infection and refracture after plate removal. To overcome these problems intramedullary nails (IM) with different designs have been used even though the previous IM nails have some shortcomings such as rotational instability and interlocking difficulties. However, the current design of interlocking forearm nails provides efficient stability with preserved blood supply and results in good final functional outcomes.

CONCLUSION:

We recommend the use of IM nails as a reliable alternative to the plate fixation, which allows closed reduction, requires no periosteal stripping, uses cosmetically acceptable smaller incision, and allows early free movement. However, the best treatment of nonunion remains the preventive treatment with an optimal management and care of the forearm fractures.

REFERENCES:

1. A Newly Designed Intramedullary Nail for the Treatment of Diaphyseal Forearm Fractures in Adult. Ibrahim Azboy, Abdullah Demirtaş, Indian J Orthop. doi: 10.4103/ortho.IJOrtho_79_16 PMID: PMC5688865.