Alternative Fixation For Forearm Fracture – Intramedullary Locking Nailing: Case Series

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INTRODUCTION:
Although plate fixation has been considered the gold standard for fixation of diaphyseal forearm fracture intramedullary locking nail can provide an alternative option of treatment for those injury.

CASE SERIES:
We present 3 patients who had diaphyseal forearm fracture which was treated with intramedullary locking nail. Case 1: 37 years old male known case of DM presented with closed diaphyseal fracture left radius ulna associated with extensive abrasion wound of the forearm. Soft tissue condition was not suitable for plate osteosynthesis thus we used intramedullary locking nail as method of fixation. Case 2: 19 years old female patient presented with closed fracture midshaft left radius. Her concern on surgical scar lead her to opt for intramedullary locking nail fixation. Intra operatively we able to reduce fracture via close reduction. Case 3: 44 years old male presented with painful non-union proximal ulna fracture. Previously he sustained a polytrauma injury involving open fracture proximal ulna. We perform mini open reduction and fixation using intramedullary locking nail.

RESULTS:
There were no surgical complications. Average operative time was lest then 1 hour. Wound healed by 2nd weeks post-surgery with acceptable surgical scar. Time to radiographic union was at 8-10 weeks. The functional outcome was assessed by Mayo score with clinical result indicate satisfactory-good outcome.

DISCUSSIONS:
All of the cases presented with different types of diaphyseal forearm fracture with various indication for intramedullary locking nail. We agree with other reports which conclude advantages such as minimal invasive techniques, short operative time, small scars, less blood loss and sufficient stability that allows early motion.1 Newly design of interlocking nail provide rotational stability.1 The use of this technique should be avoided in cases with canal diameter less than 3mm, preexisting deformity and in active infection.1,2 Complication rates are low as compared to plate osteosynthesis.2

CONCLUSION:
Intramedullary locking nail is an alternative option for diaphyseal forearm fracture. Case selection is important to ensure good outcome.

REFERENCES:
1. New interlocking intramedullary radius and ulna nails for treating forearm diaphyseal fractures in adults,Gursel et al, January 2014