

Augmentation of Intramedullary Nail in Comminuted Fracture of The Femoral Shaft with Cable Wire – A Case Report

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INTRODUCTION:

Although interlocking nailing is a preferred procedure for treating femoral shaft fractures and has a high union rate, fracture comminution leads to challenges. The role of open cerclage wiring in comminuted femoral shaft fracture treatment with intramedullary nails remains unclear. Furthermore, the fractures reported in the literature have mainly fractures of the peritrochanteric area, not of the shaft. Here, we described the effect of open cable wiring after interlocking nailing in comminuted femoral shaft fracture treatment. We hypothesized that open cable wiring can be applied in patients with severe comminuted femoral shaft fractures without affecting bone healing.

REPORT:

72 years old man had motor-vehicle accident with high impact trauma. He sustained a closed, neurovascularly intact injury over his right thigh. Radiographs revealed a comminuted mid-diaphyseal comminuted femoral fracture (Fig. 1), which was treated with intra-medullary nail fixation and augmentation with open reduction and cable wiring (Fig. 2). The latest follow-up was at 6 months following his injury. The patient reported that he had been able to return to all her usual activities and the fracture had been observed to be radiologically united on follow up radiographs.

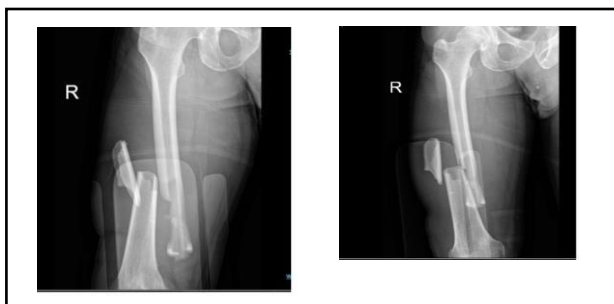


Figure 1: comminuted mid- diaphyseal comminuted femoral fracture



Figure 2: Diaphyseal comminuted femoral fracture treated with intra-medullary nail fixation and augmentation with open reduction and cable wiring

CONCLUSION:

In conclusion, augmentation with open cable wiring can be applied in comminuted fractures of the femoral shaft treated with intramedullary nails even when the fragments are large or greatly displaced. The advantage of the technique is the fractures can be reduced better in radiographic appearance. We advocate that augmentation with open cable wiring is promising in term of union rate in comminuted femoral shaft fractures treated with interlocking nails.

REFERENCES:

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