

## Conventional Dynamic Compression Plate Is Still A Good Option For Treatment Of Comminuted Diaphyseal Femur Fracture

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### INTRODUCTION

Open reduction internal fixation using a conventional dynamic compression plate is occasionally used in comminuted fractures of the diaphysis of the femur with neutralizing plate technique. General principle of maintaining soft tissue attachments and blood supply of the intervening comminuted fragments are applied. Length axial and rotational alignment have to be corrected and the fracture zone stabilized to allow union.

### CASE REPORT

A 47 year old male, sustained closed comminuted fracture of midshaft femur following a motor vehicle accident. Neurovascular status of the right lower limb was intact. Based on Winquist and Hansen classification, it was type IV injury. It was complicated with Fat Embolism Syndrome and as a mode of treatment he was operated in an emergency setting. The only available option were dynamic compression plate and lag screw. Post-operatively the patients is placed initially on static and dynamic quadriceps exercises and continues passive motion as the patient can tolerate. Patient is kept on non weight bearing mobilization till around six weeks when partial weight bearing is allowed. We found that the average appearance of callus seen radiologically was between six weeks after surgery.

### DISCUSSION:

This traditional approach is responsible for many of the problems for which plating was condemned and later abandoned for certain fractures. The conflicts are between the need for absolute anatomical reduction and the desire for soft tissue preservation. Despite having conflicts on soft tissue preservation we found that this traditional method especially in an emergency has proven adequate and fairly good outcome. Important features in this mode of treatment are obtaining length, rotational alignment, and angulation correctly with respect to the soft tissue.

Xray on admission



Post operative xray



Xray after 3 months

### CONCLUSION

Neutralization plate with lag screw principle of comminuted shaft of femur fracture is indeed a good option which provides good outcome, where we have to work with the existing insufficient resources especially in emergency setting. This should be done even in teaching hospitals where not all the facilities may be available in emergency setting and district hospitals.

### REFERENCES:

1. Gerber C, Mast JW, Ganz R. Biological internal fixation of fractures. Arch Orthop Trauma Surg 1990; 109 : 295-303.
2. Anand J. Thakur Sccond edition; the elements of fracture fixation.