

Dual Plating? Is It Superior For Treatment Of Implant Failure Humerus?

¹Amelia JA; ¹M Ashraf; ¹Chua CG; ¹Naveen V
¹ Orthopedic Department, Hospital Tawau, Sabah, Malaysia.

INTRODUCTION

Humeral shaft fractures account for 1-3% of all fractures. Majority of cases, can be treated non-operatively, due to the extensive muscle and soft tissue cover that can be used to splint the fracture. However, despite the success of non-operative treatments, there are several types of fractures which require an internal fixation [1]. Implant failure after plating is a rare and causes can be mechanical, biological, poor surgical technique, excessive/insufficient construct stiffness et cetera [2].

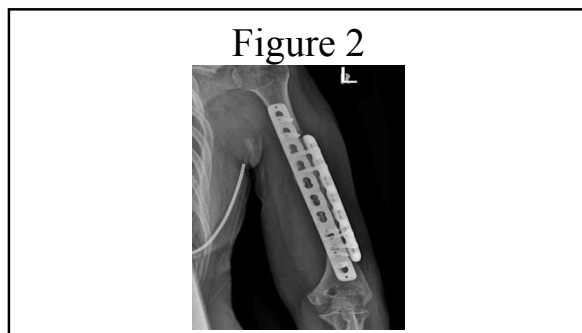
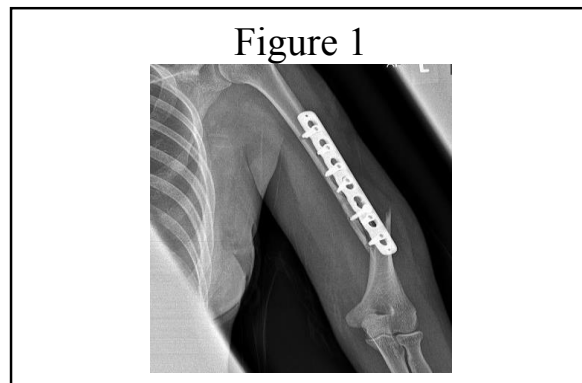
REPORT:

35 years old lady alleged fall and sustained closed fracture over distal third of left humerus with intact neurovascular. Subsequently patient underwent open reduction and locking compression plating over left humerus. Subsequent follow up, 1 month post operation, noted implant failure with no sign of infection. Consequential, patient underwent implant readjustment with 2 locking compression plate over left humerus. Fracture united uneventfully after second operation.

Figure 1: Implant failure left Humerus
Figure 2: Dual Plating Left Humerus

DISCUSSION:

Murray et al pioneered the use of double-plate constructs for nonunion in 1964. They suggested that this method provides a more stable construct than that achieved with a single plate because of the biplanar control provided by dual plates at right angles to each other. Study done by Sameer Aggarwal et al confirmed that the dual plate construct had a significantly higher mechanical stability than single plate fixation [3].



CONCLUSION:

In treatment of implant failure humeral fractures, dual plate fixation is a technique that increases the stability and healing rates.

REFERENCES:

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3. Sameer Aggarwal et al., Implant Failure within 3 days after plating fracture shaft humerus 2013