

MID-SHAFT HUMERAL FRACTURE IN OBESE PATIENT: MIPO IS AN OPTION

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Introduction: Treatment of humeral shaft fracture has evolved from conservative cast and braces to internal fixation with plates or intramedullary nailing. Anterior bridge plating (ABP) with Minimally Invasive Plate Osteosynthesis (MIPO) technique has gained popularity recently with satisfactory clinical outcomes.

Discussion: A 22 years old obese lady (BMI: 31.05) presented with pain & swelling over her right arm following a motor vehicle accident and sustained close displaced mid-shaft right humerus fracture with no radial nerve injury. Within a week patient underwent ABP of right humerus utilizing the MIPO technique as described by Apivatthakakul et al. [1] with a 4.5mm narrow Locking compression plate (LCP). Post operatively, no neurovascular deficit (mainly Radial nerve) & arm was immobilized in a neck-wrist sling. The standard protocol of mobilization exercises was started from day 2, as tolerated by the patient. The patient was followed first after two weeks then monthly. At six month follow up, the result is promising with acceptable fracture union & good functional outcome. The traditional open reduction & plating considered being a reliable osteosynthesis technique, however, extensive soft tissue stripping, poor cosmetic scarring, and direct handling of the radial nerve have been of concern. Whereas intramedullary nailing is minimally invasive, with the risk of potentially damaging the rotator cuff & causing shoulder impingement. The MIPO is designed to combine the best features of these two techniques[2], where it is biologically stable with minimal soft tissue disruption and cosmetically preferable, which is vital in the treatment of an obese patient as mentioned in our case report to reduce major soft tissue problems & infection rate.

Conclusion: In conclusion, MIPO for mid-shaft humerus fractures is an effective treatment modality & would recommend as one of the treatment options in obese patients with minimal soft tissue complications & infection rates.