

## TREATMENT OF RECALCITRANT ASEPTIC ATROPIC NON UNION HUMERUS : CASE REPORT

Mohd Hafizuddin Ahmad Sabri<sup>1</sup>, Mohammed Harris Anwarali Khan<sup>1</sup>, Jasvinder Singh Jagindar Singh<sup>1</sup>

<sup>1</sup>Hospital Taiping

**Introduction:** Recalcitrant humeral non-union is a disabling condition that is extremely difficult to treat. Although literature have been published on operative treatment of distal humerus nonunion with plating augmented with bone graft, interlocked nailing with autologous bone grafting and external fixator [1], distal humeral nonunion remains challenging for orthopedic surgeon. This report will desmontrated a case of reccurent nonunion of distal humerus fracture after treating with locking plate and bone graft.

**Discussion:** 26 years old lady suffered a closed fracture of distal humerus after alleged motorvehicle accident, underwent dynamic compression plate over distal humerus on December 2016. During a follow-up, radiographic shows no signs of bony healing and broken plate. Due to financial difficulty, appropriate treatment procedures was not taken, until April 2018. Radiographs taken at that time showed an atrophic nonunion distal 1/3rd of humerus with implant failure. Patients was admitted and underwent removal of implant and extraarticular locking plate with dimeneralized bone matrix insertion over distal humerus. Unfortunately, during follow up 7 month postoperative which is on November 2018, radiographs show again atropic non union over the humerus with implant failure. After discussion and explanation regarding the latest issue, Patient agreed for operation. She underwent removal of plate, bone shortening and posterolateral humerus locking plate with bone graft(Granumas). Subsequent follow up after 1 year postoperative, latest radiographs showing a good bone healing with callus formation and full range of motion of the elbow.

**Conclusion:** This report has demonstrated that locking plate combine with bone graft has proven successful in treating a reccurent nonunion of distal humerus fracture after treating with locking plate and bone graft.