

EXTERNAL FIXATION OF INFECTED NONUNION OF THE HUMERAL SHAFT: A RETROSPECTIVE STUDY OF 14 CASES

Nuradeen Altine Aliyu¹

¹Orthopaedics Hospital Wamakko

Introduction: We reviewed the outcome of infected non-unions of humeral shaft following treatment with external fixators in relation to union, bone grafting and resolution of infection

Methodology: There were 11 men and 3 women who were treated with infected non-union of diaphyseal fracture of the Humerus by the external fixator from 2014 to 2019. All had previous surgical treatment with 4 patients who had closed fractures while the rest had open fractures. Non-union followed plate fixation in 4 cases and in 9 cases after external fixation. Among them 9 had autogenous bone graft in addition to external fixation. The use of antibiotics beads was done in 5 patients.

Discussion: The fracture healed successfully in 12 cases. The time range to union was 3 to 9 months. Nine patients had bone graft with external fixation. Two patients had plate fixation and bone graft from failure of external fixation. There were high levels of satisfaction on outcome from pain reduction, resolution of infection and improved function. There were shortening in 3 patients from bone loss, 2 had radial nerve palsy that resolved spontaneously, 2 had shoulder stiffness and 1 had elbow stiffness. Pin tract infection was not a major complication.

Conclusion: Successful fracture union could be achieved in infected nonunion of humeral shaft following adequate debridement and skeletal stabilisation with external fixator. Bone grafting augments healing to achieve fracture union. The use of external fixator is fast, cheap and help to achieve resolution of infection for possible bone union.