

Double One-Third Tubular Plate Osteosynthesis In Communicated Proximal Ulna Fracture, An Alternative?: A Case Report

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INTRODUCTION:

Fracture of olecranon constitute approximately 10% of all upper extremity fractures. Olecranon fractures are intra-articular injuries that require anatomic restoration of the articular surface. In case of fracture comminution, stable and long-term reliable fixation is required. The goal of treatment in displaced fracture is to achieve stable internal fixation that allows early range of elbow motion and prevent joint stiffness. Our objective is to report regarding the outcome of using double plate (one-third tubular) osteosynthesis in comminuted fracture of proximal ulna where financial difficulties in getting locking plates are obstacles in rural areas.

CASE REPORT:

This case involved a 61 year old lady who alleged motor vehicle accident, sustained closed comminuted fracture of right olecranon (type IIb Mayo classification). Double contoured plating of the olecranon using one-third tubular plate was the treatment of choice due to financial constraint in getting locking plate. Dorsal approach to the olecranon was used, open reduction and internal fixation by two sides, angulated at 90° to each other, plate is contoured around the tip of olecranon. Post operative management, early active assisted range of motion exercise started at 3-4 weeks. Fracture united at 10 weeks postoperatively. Range of motion improved to 10°-135° after one year. Based on Mayo elbow performance score, patient scored 95 points.

DISCUSSIONS:

Stable fixation of olecranon fractures is essential to allow early and has been shown to positively affect elbow range of motion and functional outcome. Due to the comminution with small proximal fragments, double-plating technique is preferred than single plate. It provides more

stable fixation by increasing number of screws used for reconstruction and have bicortical fixation of the proximal fragment.¹ Giving the stability, early range of movement exercises can be started therefore elbow stiffness can be avoided.

While the use of locked plating for these injuries has yielded good results, this system is highly cost and not readily available in rural areas.



Figure 1: Trauma x-ray



Figure 2: Posterior and laterally positioned plates

CONCLUSION:

Double-plate osteosynthesis using non locking plate potentially represents an efficient option for fixation of comminuted proximal ulna fractures in alternative of using single locking plate.¹ With minimal resources in rural areas this might be new alternative choice of treatment.

REFERENCES:

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