

Union Rate of Humerus Fracture Treated With Monorail Limb Reconstruction System And Its Functional Outcome.

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INTRODUCTION:

Humerus fracture constitutes 3-5% of all fracture. Although most of the humerus fracture best treated with internal fixation, external fixation with monoplanar limb reconstruction system (LRS) can provide alternative.

METHODS:

Studies taken place at Tuanku Ja'afar Seremban Hospital since November 2019 until March 2021. Patient selection falls into criteria of non-union, open or closed fracture with soft tissue compromised. Six patients were collected and union rate evaluated with Modified Rust score and ROWE score for functional outcome.

RESULTS:

3 patients presented with non-union, whereas 3 other patients associated with open or closed fracture. Bone union is tabulate in table 1. The fixation was removed after bone consolidation score achieved. According to ROWE score, 66% patients achieved 90-100%,

Table 1: Patient distribution with Modified Rust Score.

Score / durations	11-15 (Union) -no. of patients	16 (Consolidation) -no. of patients
6 weeks	1	0
3 months	2	0
6 months	3	3
1 year	0	3

DISCUSSIONS:

LRS provide more rigid and stable fixation in humerus as it is single arm bone with good patient's compliance. Hydroxyapatite coated pin offer long term external fixation as it prevents pin tract infection or loosening while able to keep better bone healing. Modified Rust score proven to be effective in evaluating union¹. ROWE score is a good predictor in assessing post-operative functional outcome².

CONCLUSION:

LRS provide good alternative in treating humerus fracture and able to reduce multiple surgeries. Modified RUST score needs to be considered to evaluate union in plain radiograph. ROWE score system offers comprehensive to provide functional outcome.

REFERENCES:

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