

## HINDFOOT FUSION: EXPERIENCE WITH REVERSE PROXIMAL HUMERUS LOCKING PLATE

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### INTRODUCTION:

Hindfoot fusion is an effective surgery to manage various types of hindfoot pathology. Despite multiple fusion techniques available, the main goal is a solid fusion with stable, painless and plantigrade foot. This study is to evaluate the clinical outcome of hindfoot fusion using reverse proximal humerus locking plate.

### METHODS:

8 patients underwent hindfoot fusion with reverse proximal humerus locking plate from January 2021 to December 2022. All patients underwent a standard lateral approach with distal fibula resection. After joints preparation, the hindfoot is compressed with headless compression screw followed by fixation with reverse proximal humerus locking plate. Postoperatively, patients were followed up routinely for wound healing, fusion, implant stability and scored according to American Orthopaedic Foot and Ankle Society (AOFAS) Ankle-Hindfoot Score.

### RESULTS:

All patients were reviewed for upto 24 months from surgery. The study consist of 6 males (75%) and 2 females (25%) with a mean age of 58 years (Range 39-67). 4 patients (50%) were diabetic with 2 (25%) suffered from Charcot arthropathy. In this study, union was achieved in all patients but there were significant delay among patients with diabetes. One case of surgical site infection was reported which developed 1 month post surgery required 2 wound debridements. Another patient developed superficial peroneal nerve injury which presented with paraesthesia over dorsum of foot and resolved 4 months post surgery.

No	DIAGNOSIS	PREOP AOFAS	LATES T AOFAS	UNION TIME (MO)
1	Fracture Dislocation	27	75	10
2	Equinovarus Deformity	43	81	4
3	Tibiotalar Nonunion	51	83	4
4	Posttraumatic OA	33	73	7
5	Tibiotalar Nonunion	45	76	5
6	Charcot Arthropathy	35	77	8
7	Tibiotalar Arthritis	32	81	4
8	Charcot Arthropathy	34	80	7

### DISCUSSIONS:

Hindfoot fusion is indicated in treating combined tibiotalar and subtalar joint pathology. This procedure requires strong and stable fixation but is associated with various debilitating complications. Several methods of fusion has been evaluated with variable outcomes in terms of fusion rate and complications.<sup>1</sup>

### CONCLUSION:

Hindfoot fusion with reverse proximal humerus locking plate demonstrates good clinical outcome with strong internal fixation and good fusion rate.

### REFERENCES:

1. Yasui, Y et. al. (2016). Ankle arthrodesis: a systematic approach and review of the literature. World journal of orthopedics, 7(11), 700.