

Outcomes of Periarticular Pinning in Proximal Phalanx Fractures

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INTRODUCTION

Proximal phalanx represent the majority of hand fractures
Percutaneous pin fixation is well described
Morbidity with PIP motion is a problem: Stern et al. (2012) reported PIP flexion loss $> 20^\circ$ in half of all patients treated with trans-articular or extra-articular pinning.

OBJECTIVES

Describe technique of periarticular pinning
Evaluate results in diaphyseal and metaphyseal fractures

METHODS

Retrospective chart review
50 fractures in 43 patients
16 shaft (1 open fx)
34 base (3 open fx)

Mean follow-up: 105 days (range 32-517 days)
Follow up assessment: complications, range of motion, need for repeat surgery, time to union

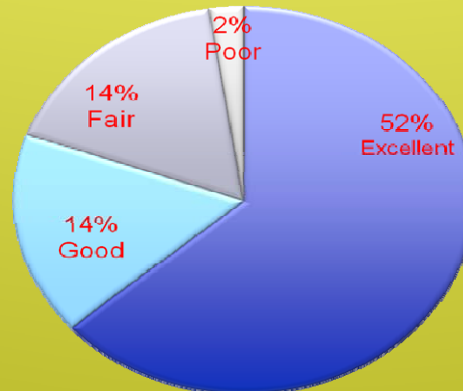


RESULTS

Pin infection: 4% (2 patients), one loss of reduction

Tenolysis: 6% (3 patients), 2 achieved excellent results, 1 poor

Time to union (bony bridge and nontender): 34.7 days



TAM Results



CONCLUSIONS

Percutaneous periarticular pinning is a good option for metaphyseal and diaphyseal proximal phalanx fractures

Clinical union: approx. 4 weeks

Loss of motion: 15 to 30 percent of patients lose more than 20°

Secondary procedure can be expected in 6%



Excellent: $< 10^\circ$ deficit
Good: $10-20^\circ$ deficit
Fair: $40-60^\circ$ deficit
Poor: $> 60^\circ$ deficit