

## CLINICAL OUTCOME FOLLOWING TREATMENT OF POST TKA PERIPROSTHETIC FRACTURE UNION OF DISTAL FEMUR MANAGED WITH LOCKING PLATE

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### INTRODUCTION

Periprosthetic fracture post total knee arthroplasty is a relatively rare complication but devastating to the patient and challenging for the surgeons in its treatment due to its conjunction with severe osteoporosis in the aging population.

### MATERIALS & METHODS

This retrospective study included (4) patients above 70 years old who underwent total knee arthroplasty and was complicated with L&R Type II distal femoral fracture from 2014 – 2022. All of them were followed-up for at least 1 year and were reassessed with the Knee injury and Osteoarthritis Outcome Score (KOOS) following fixation of the periprosthetic fracture.

### RESULTS

There were four (4) patients with distal femur periprosthetic fracture following primary TKA (3 female and 1 male).

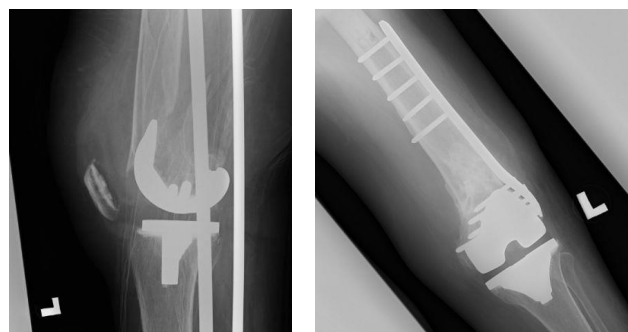
Low velocity injury (alleged slip and fall from a standing height) was the cause for periprosthetic fracture in all patients. The mean age was 70 years. All patients were treated postoperatively with calcium and calcitriol supplements.

All patients were classified as Type II based on Lewis and Rorabeck classification and distal femoral locking plate was the implant of choice.

All patients were followed up in 1 year with series of radiological imaging and KOOS score reassessment.

Radiographic union was documented in all patients (100%) at mean of 28 weeks after fixation.

KOOS score was assessed and the mean for pain (89), symptoms (83), ADL function (81), and knee related quality of life (71) was reported.



**Radiographs showing periprosthetic TKA distal femur fracture and its union following fixation with a locking plate.**

### DISCUSSION

A total of (4) cases were identified as suitable candidates for analysis. All cases were treated with distal femur locking plate. The components analyzed were post operative knee pain, symptoms, ADL function and knee related quality of life, and fracture union.

### CONCLUSION

Periprosthetic distal femoral fractures are known to be treated non operatively or surgically using locking plate, intramedullary nailing, and revision TKA. In this case series, satisfactory clinical and radiological outcome was achieved in treating these periprosthetic fractures using a locking plate.

### REFERENCES:

1. Zainul-Abidin S, Lim B, GatotC, Allen JC, Periprosthetic Fractures after TKA: Influence of Pre-Operative Mechanical Factors versus Intraoperative Factors. *Malays Orthop J.* 2019 Jul;13(2) :28-34. doi: 10.5704/MOJ.1907.005. PMID: 31467648; PMCID: PMC6702975.