

Satisfactory clinical outcome and fracture union of distal femur periprosthetic TKA fracture managed with locking plate - a case series

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ABSTRACT

Introduction: Post-total knee replacement periprosthetic fracture is a relatively rare complication. As devastating as these injuries are, they are also challenging for surgeons due to the ageing population in conjunction with severe osteoporosis. Lewis and Rorabeck classification, which is based on 2 criteria, i.e., presence of displacement and stability of the implant, is most frequently used for distal femur periprosthetic fractures. **Methods:** This case series included 4 patients above 70 years of age who underwent total knee arthroplasty between 2014–2022 and had complications of Type II distal femoral fracture. **Results:** There were 4 patients with distal femur periprosthetic fractures following primary TKA (3 females and 1 male). Low-velocity injury (alleged slip and fall) was the cause of all these peri-prosthetic fractures. The mean age of the 4 patients was 70 years. Postoperatively, all patients were treated with anti-osteoporotic drugs (calcium and calcitriol). All patients were classified as Type II based on Lewis and Rorabeck classification and a distal femoral locking plate was used as the implant of choice. Radiographic union was 100% at a mean of 28 weeks postoperatively. KOOS score was: Mean pain - 89, Symptoms - 83, ADL function - 81, and Knee related quality of life -71. **Conclusion:** Periprosthetic fracture of the distal femur can be treated non-operatively or surgically with a locking plate, intramedullary nail or revision TKA. This case series shows that these fractures when treated with a locking plate can achieve satisfactory clinical and radiographic outcomes.