## Femoral mid-shaft periprosthetic fracture

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The patient, a 70-year-old female, steroid-dependent, rheumatoid with osteoporosis, had undergone a previous procedure to repair a periprosthetic fracture of the distal femur utilizing a long-stemmed total knee femoral component. During that procedure, a new periprosthetic fracture was created near the tip of the stem. This was repaired with strut grafting and metal cerclage wires but went on to non-union and fracture of the strut graft, resulting in gross angular displacement.

The patient was then referred to our practice for consultation and surgery was performed. She underwent open reduction and internal fixation with reconstruction of the femur using a Kinamed cable-plate, fixed with 8 polymer SuperCables, 3 compression screws and 2 fixed-angle locking screws, augmented with a posterior cortical strut graft. Cancellous cadaveric bone chips, along with platelet-rich plasma, were packed around the fracture site.

We were able to immediately ambulate her the following postoperative day. Formal physical therapy was undertaken shortly after surgery. She was kept partial weight bearing for approximately six weeks at which time she was progressed to full weight bearing. Radiographs documented progressive callus formation and fracture healing.

Pre-op radiograph (A) showing non-union of a periprosthetic fracture at the tip of the implant stem with failed strut allograft and metal cable fixation. Seven-week post-op radiograph (B) illustrates repair of the periprosthetic fracture with cable-plate, polymer cables, locking and compression screws, and strut allograft. Cancellous chips and platelet-rich plasma were packed around fracture site. At this time patient was fully weight bearing with evidence of good fracture consolidation.



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