## Revision of Recalled Hip Stem, with Infection

### Bradley S. Ellison, MD, MS, Advanced Orthopaedics, Richmond, Virginia, USA

A 44 year-old obese female with hip dysplasia presented with increasing left hip pain 2 years after primary THA involving a subsequently recalled femoral stem (Figure A). Hip aspiration results confirmed coincident periprosthetic joint infection. The patient agreed to proceed with two-stage explantation with insertion of a temporary antibiotic-impregnated femoral spacer, intravenous antibiotics for 6 weeks, followed by revision THA.

The primary stem was well-fixed and required an extended trochanteric osteotomy (ETO) for removal. The temporary antibiotic spacer was placed and the ETO was fixed with 3 polymer SuperCables (Figure B). Once the infection was addressed, she returned to surgery for removal of the spacer and insertion of a modular revision stem. A 4-Hole Kinamed Trochanteric Grip-Plate, attached with 5 SuperCables, was used to fix the ETO and reinforce the greater trochanter (Figure C).

At 6 months after revision THA, she was ambulating with occasional use of a cane. At one year post-op, she has made continued improvement and has returned to an active lifestyle including activities outside the home and travel.





Figure A:
Patient presented with periprosthetic infection and modular hip prosthesis recalled for metal debris generation.



Figure B: ETO performed for stem removal with fixation utilizing 3 polymer SuperCables. Antibiotic spacer temporarily placed.



Figure C:
One year post-op radiograph
demonstrating definitive reconstruction
using a modular stem/cup and a titanium
trochanteric "claw-plate" fixed with 5
polymer SuperCables



# Grip and Polymer Cable Fixation for Inter-Trochanteric Fracture

#### Vincent A. Fowble, M.D., Palm Beach Orthopaedic Institute, Jupiter, Florida, USA

A 77 year old female with end-stage osteoarthritis of her left hip fell and sustained a 3-part inter-trochanteric femur fracture (Figure 1). She underwent a primary cementless THA with ORIF utilizing a 2-hole locking trochanteric grip-plate, fixed with 3 uni-cortical locking screws and 4 polymer SuperCables (Figure 2). At ten months post-op (Figure 3), she was well-healed and was having soft tissue irritation over the hardware, secondary to her thin body habitus (BMI < 19). She underwent uneventful removal of the hardware (Figure 4), which relieved her symptoms.





Figure 1: Pre-op AP radiograph showing end-stage osteoarthritis of the left hip with a 3-part intertrochanteric femur fracture.



Figure 2:
Post-op AP
radiograph
showing
cementless
THA and the
SuperCable 2-hole
trochanteric gripplate.





Figure 3:
Ten month post-op (a) AP and (b) lateral radiographs showing a well-healed greater trochanter.



Figure 4: AP radiograph following removal of the trochanteric grip-plate.



### Femoral mid-shaft periprosthetic fracture

**Perry R. Secor, MD,** Los Alamitos Orthopaedic Medical & Surgical Group Los Alamitos, California

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.







