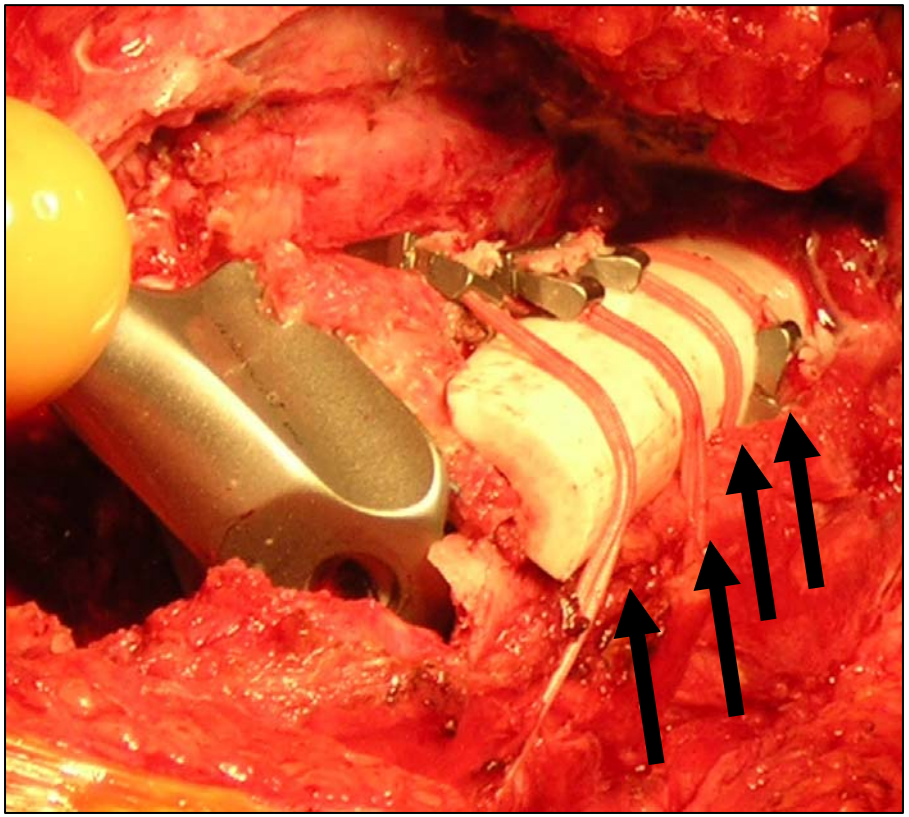
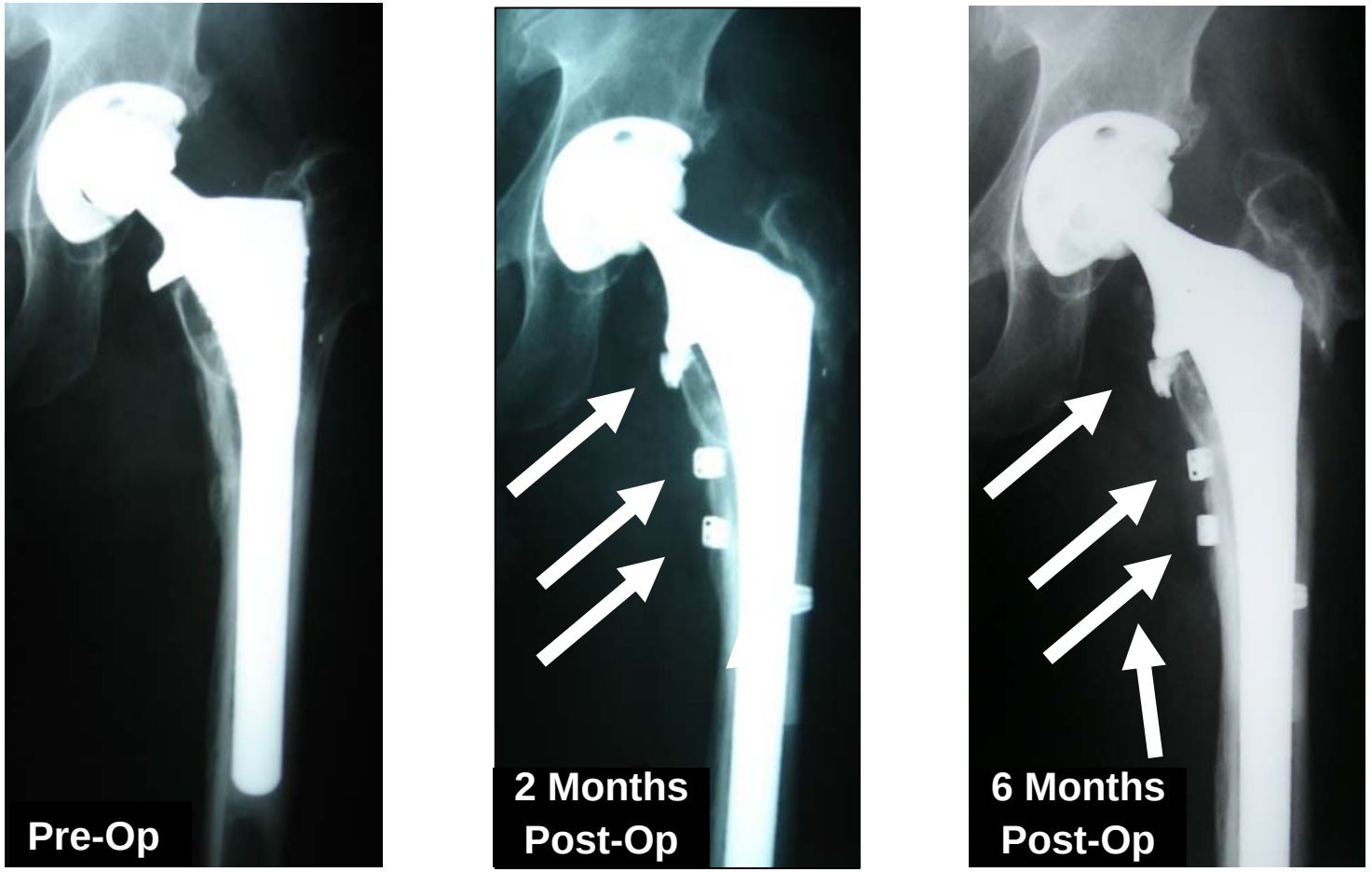
Case A: THA Revision

43 year old male

- Index THA revised in 1995 due to loosening
- Subsequently revised in 2004 using long stem via trochanteric osteotomy, with allograft strut and four elastic cerclage cables
- No pain and healing osteotomy at six-months



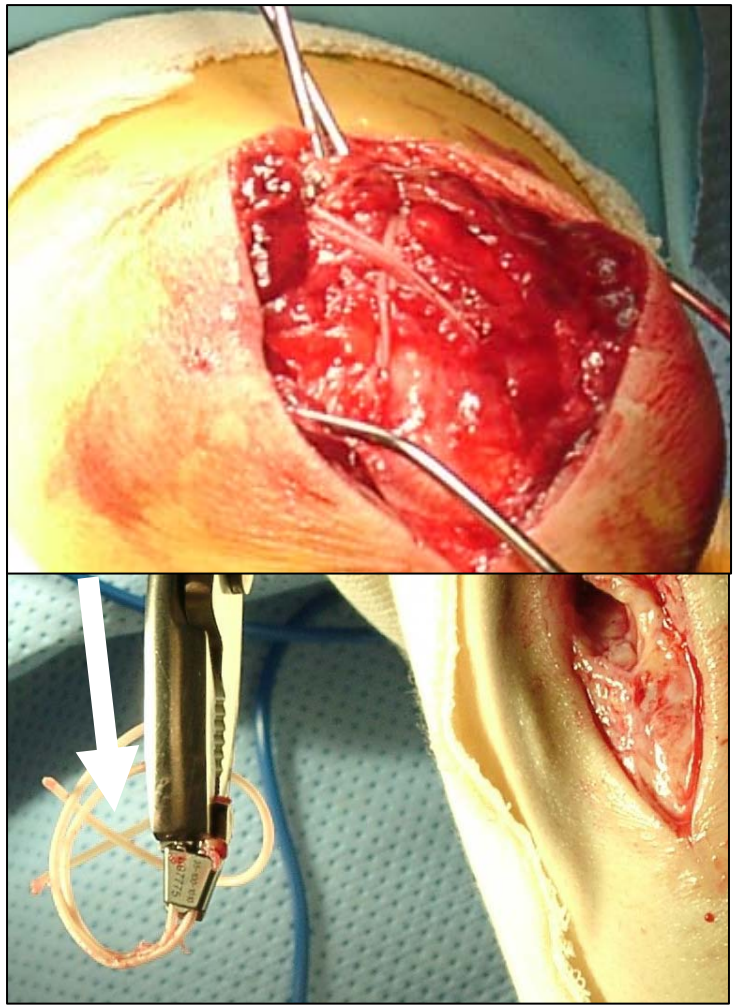
Case A: THA Revision



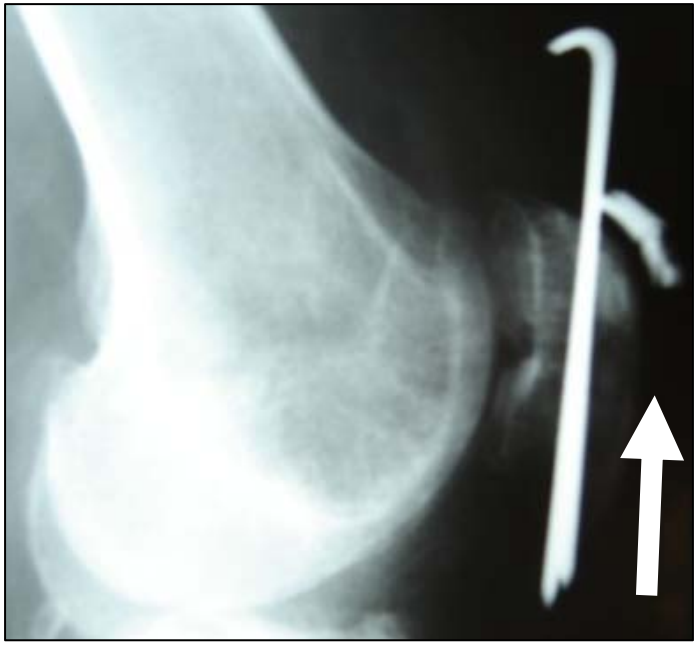
Case B: Patella Fracture

60 year old male

- Transverse patella fracture
- Treated with tension band technique using one elastic cerclage cable and two Steinmann pins
- Clinical union at 3 months
- Cable and instrumentation removed without complication (cable was still tight)

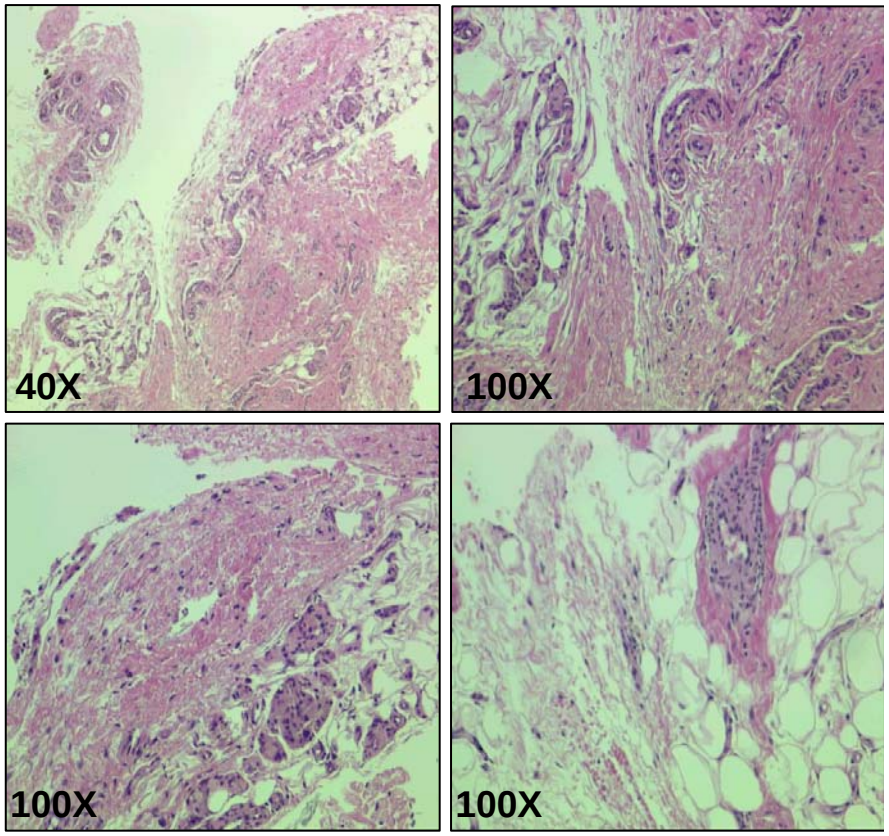


Case B: Patella Fracture



Case B: Patella Fracture

- Histological analysis of tissue retrieved from elastic cerclage cable explanted after 14 weeks
- Sections show reactive blood vessels in a loose fibrous tissue stroma, consistent with repair tissue
- Macrophages, giant cells, and chronic inflammatory cells are absent



H&E stained images courtesy of Pat Campbell Ph.D. (Joint Replacement Institute, Los Angeles, CA)

Case C: Femur Malunion

66 year old male

- THA developed malunion and subsequent aseptic loosening after peri-prosthetic fracture
- Stem revised using femoral osteotomy with allograft strut and four elastic cerclage cables
- At 6 and 12 months, patient was fully weight-bearing and active

Case C: Femur Malunion

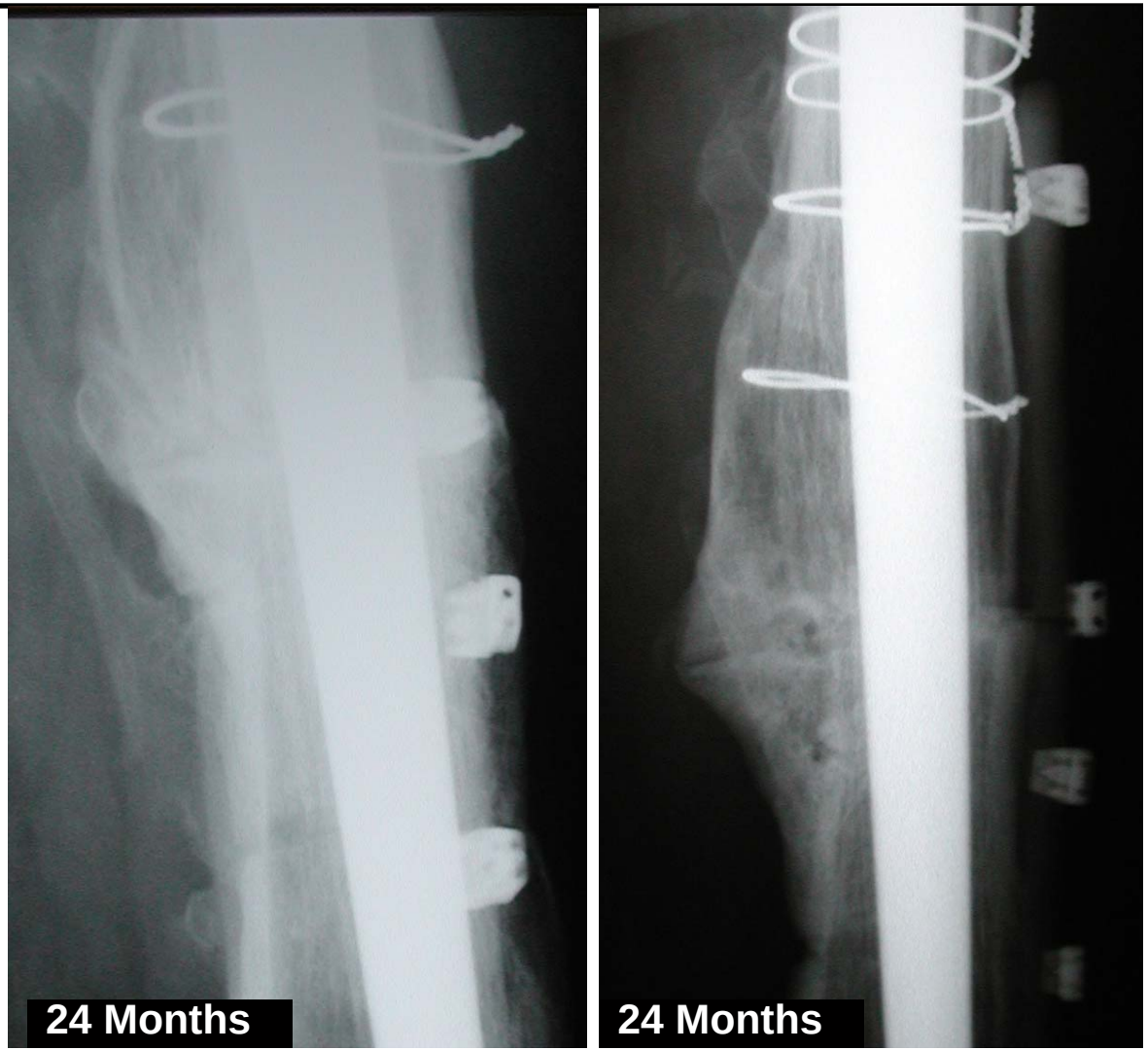
- At 6 months, patient was pain-free and had returned to work
- Healing osteotomy
- Callus appears over and around the cables

Case C: Femur Malunion

- At 12 months, patient was pain-free and still active
- Healing osteotomy
- Callus appears over and around the cables

Case C: Femur Malunion

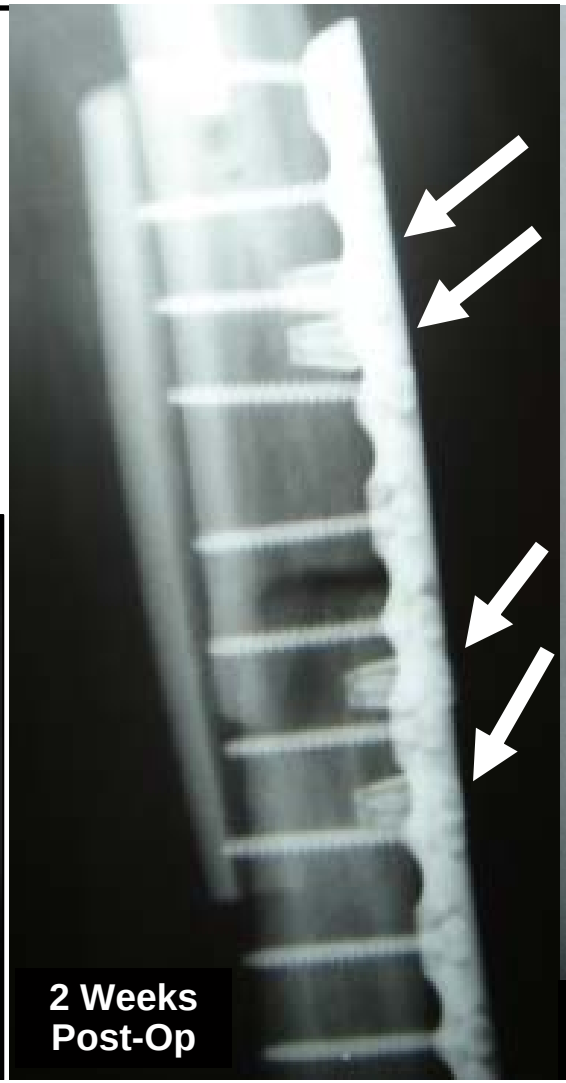
- At 24 months, patient was still pain-free and still active

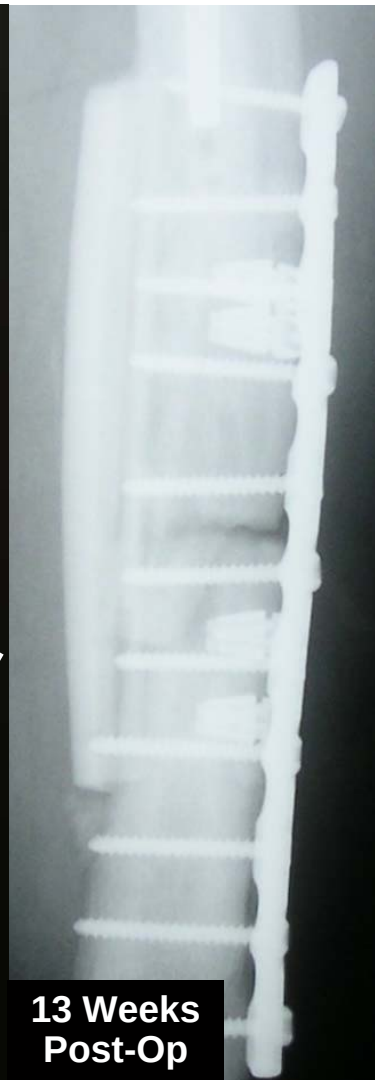


Case D: Femur Fracture

65 year old female

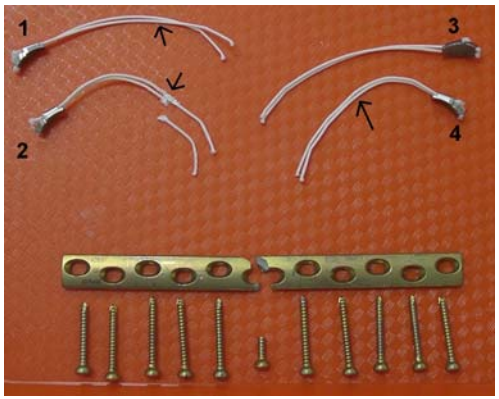
- Four elastic cerclage cables used to treat a femur fracture in patient with osteopetrosis

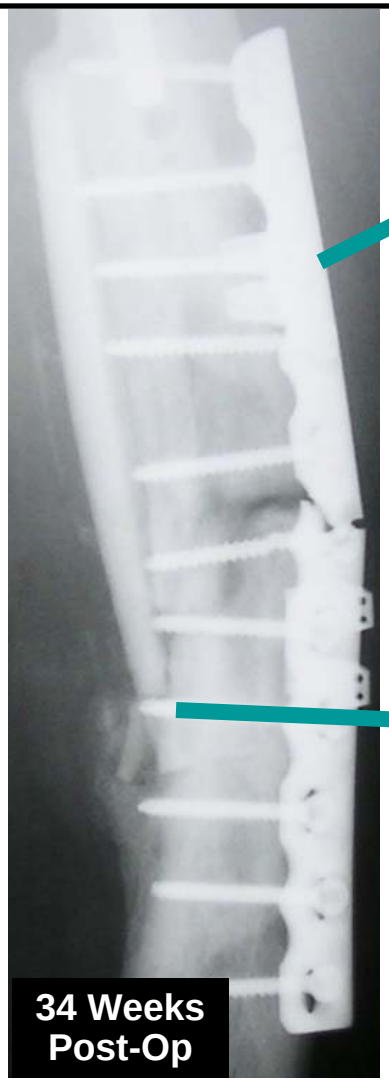


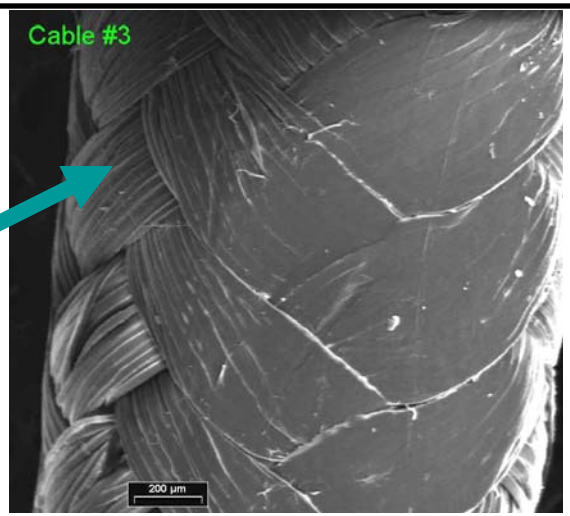


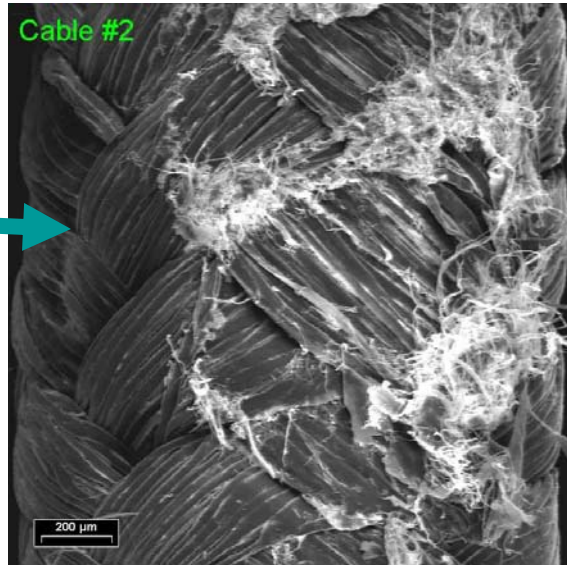
Case D: Femur Fracture

- Plate failed by fatigue at 34 weeks and was revised
- Cables were retrieved and analyzed



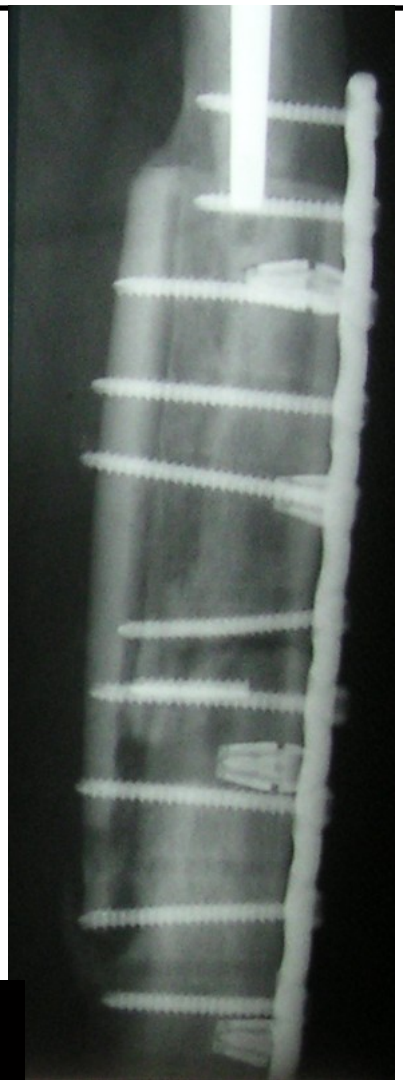






Case D: Femur Fracture

- ORIF was re-done using same technique

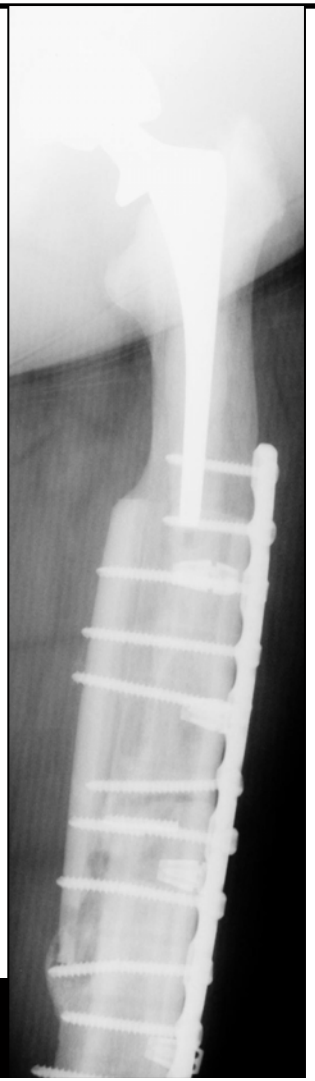


14 Weeks Post Revision ORIF

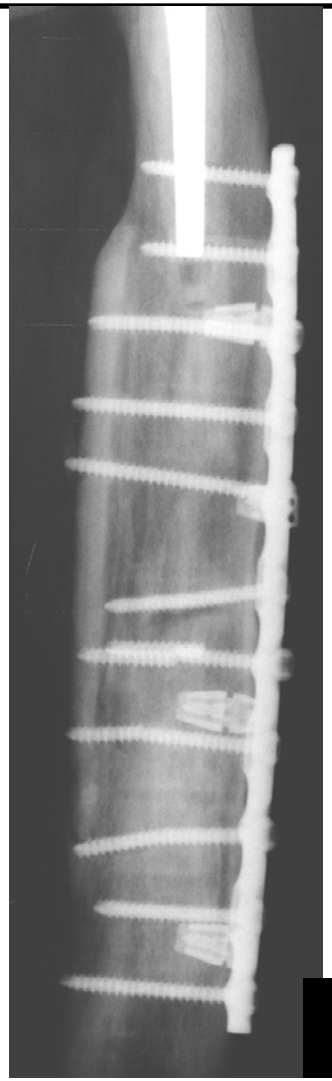
18 Weeks Post Revision ORIF

Case D: Femur Fracture…

- Fracture Healed
- At 2 ½ years follow-up bone adjacent to cables appears normal



70 Weeks Post Revision ORIF



135 Weeks Post Revision ORIF

Case E: THA Revision

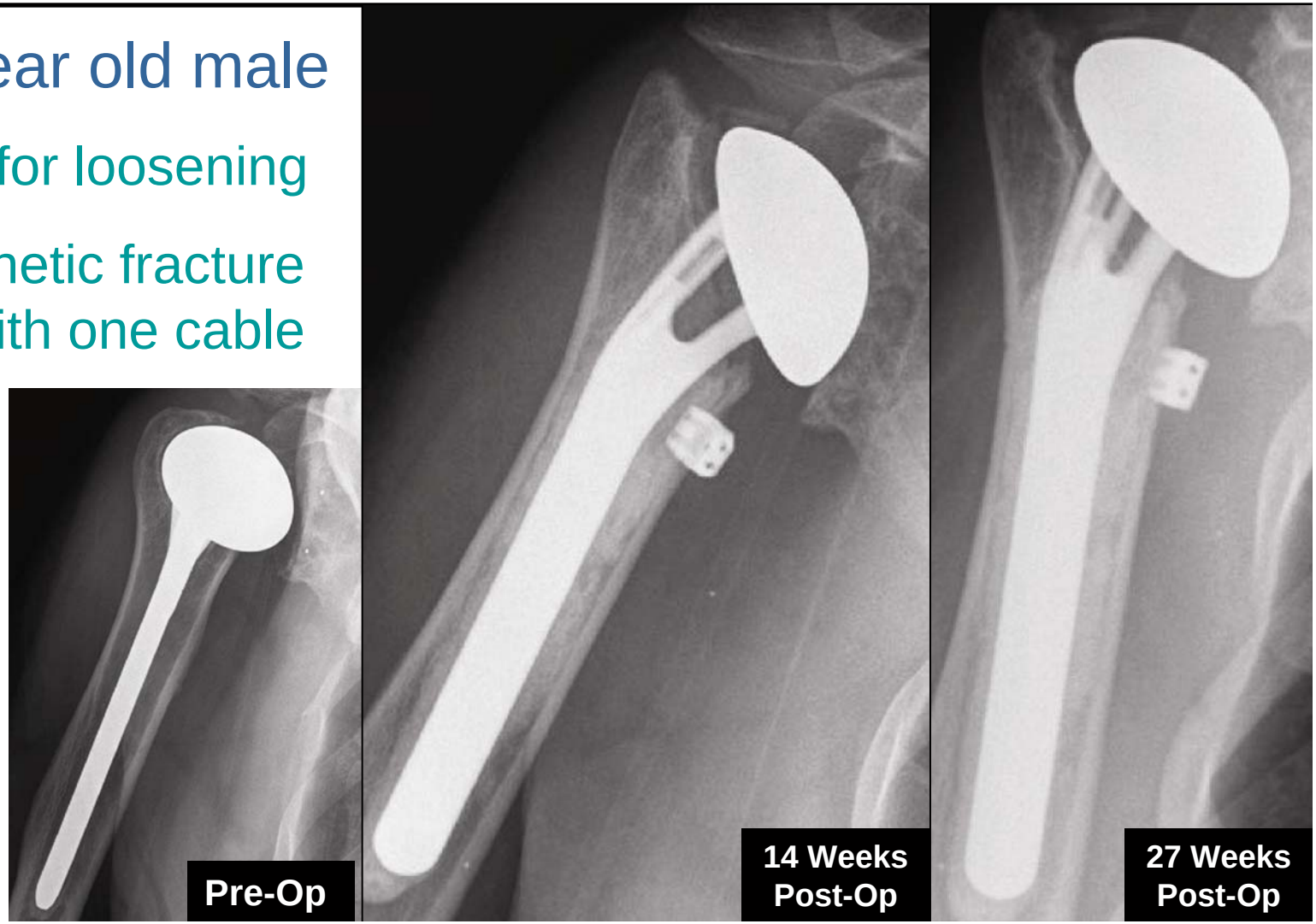
85 year old female

- Revision THA with peri-prosthetic fracture
- Stem was loose proximally but well-fixed distally
- Fracture treated with two allograft struts and four elastic cerclage cables
- At 21-weeks, patient was fully weight bearing and has healed

Case F: Humeral Stem Revision

64 year old male

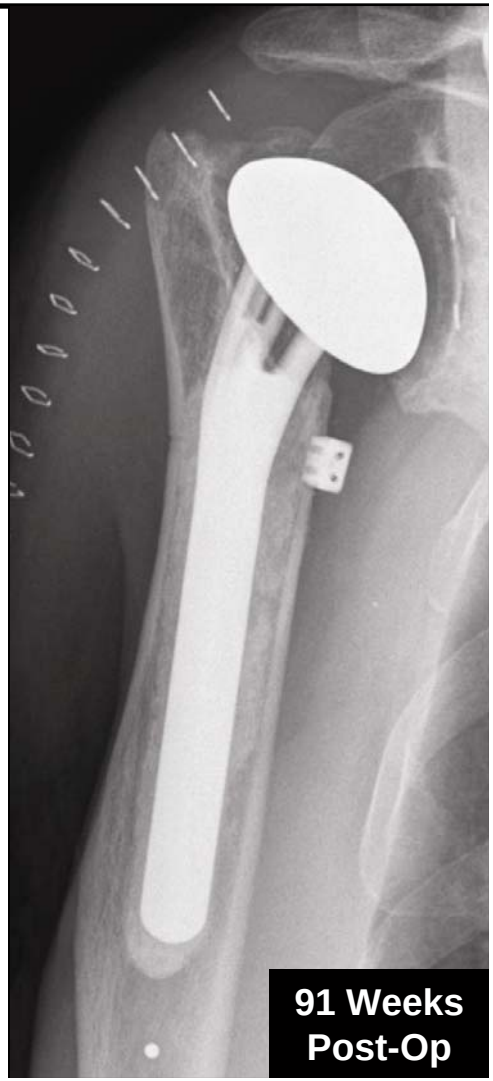
- Revision for loosening
- Periprosthetic fracture treated with one cable



Case F: Humeral Stem Revision..

64 year old male

- Revision for loosening
- Periprosthetic fracture treated with one cable



Case G: Humeral Stem Revision

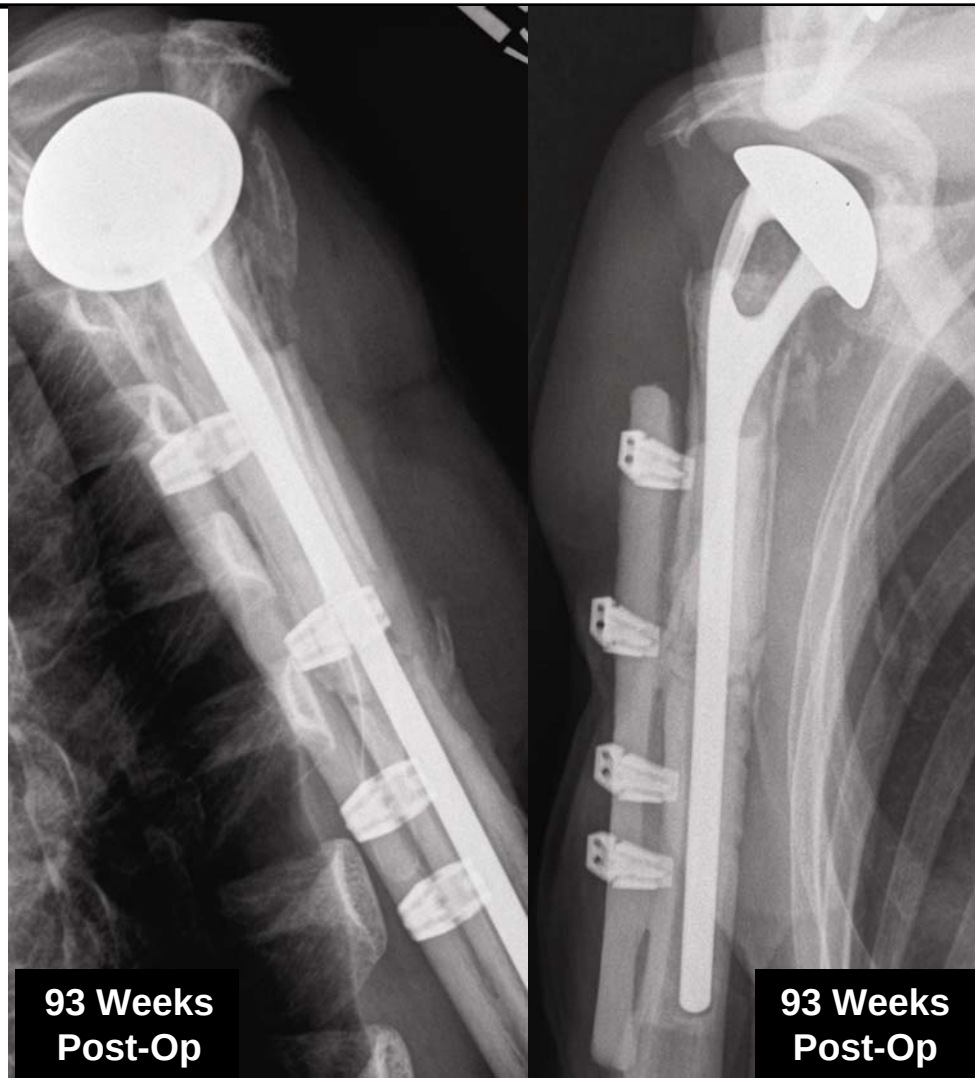
66 year old female

- Revision for periprosthetic fracture distal to stem
- Fracture treated with two allograft struts and four elastic cerclage cables

Case G: Humeral Stem Revision..

66 year old female

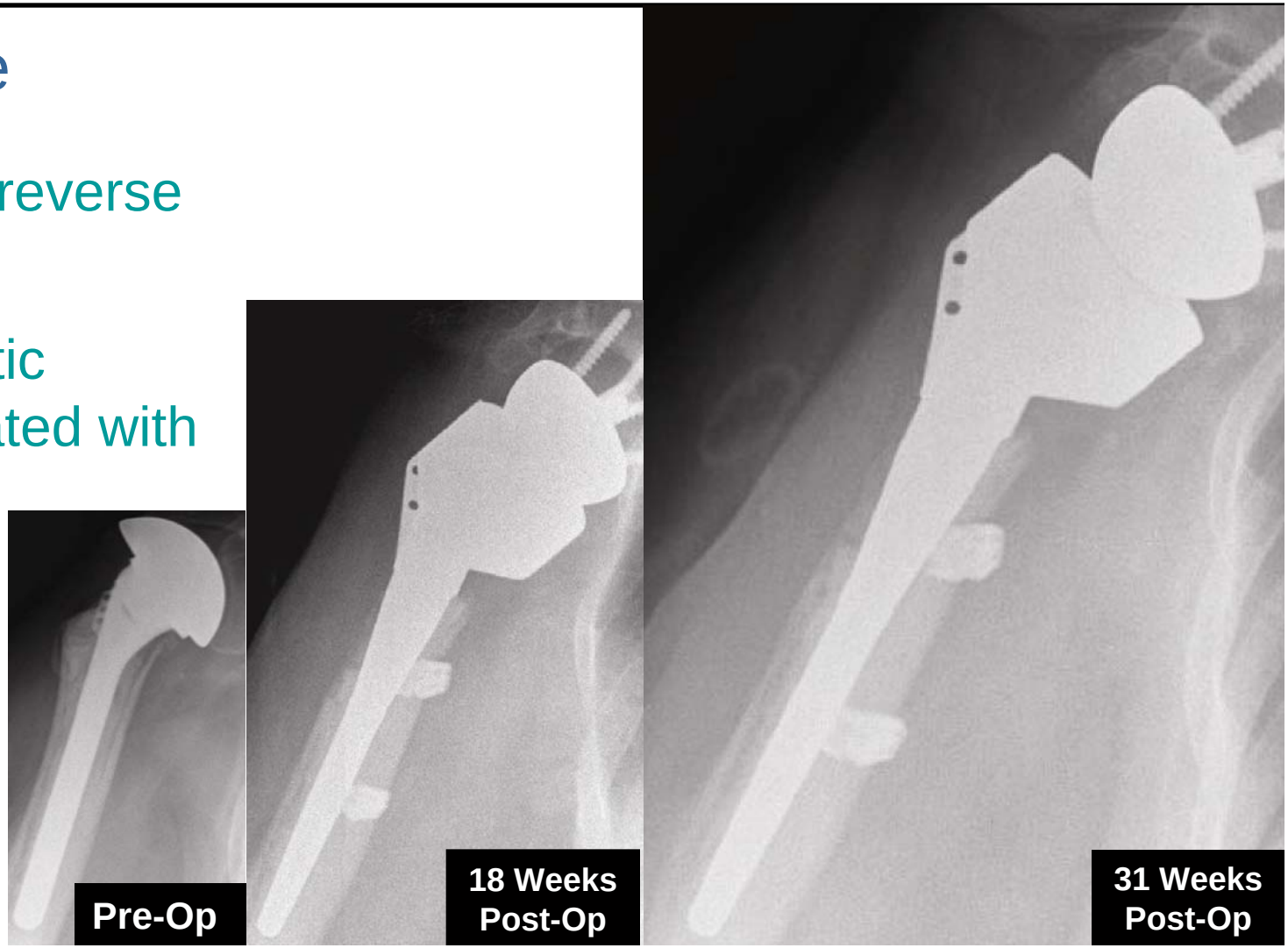
- Fracture treated with two allograft struts and four elastic cerclage cables
- Cables and radiographs appear normal at 93 weeks



Case H: Humeral Revision

Female

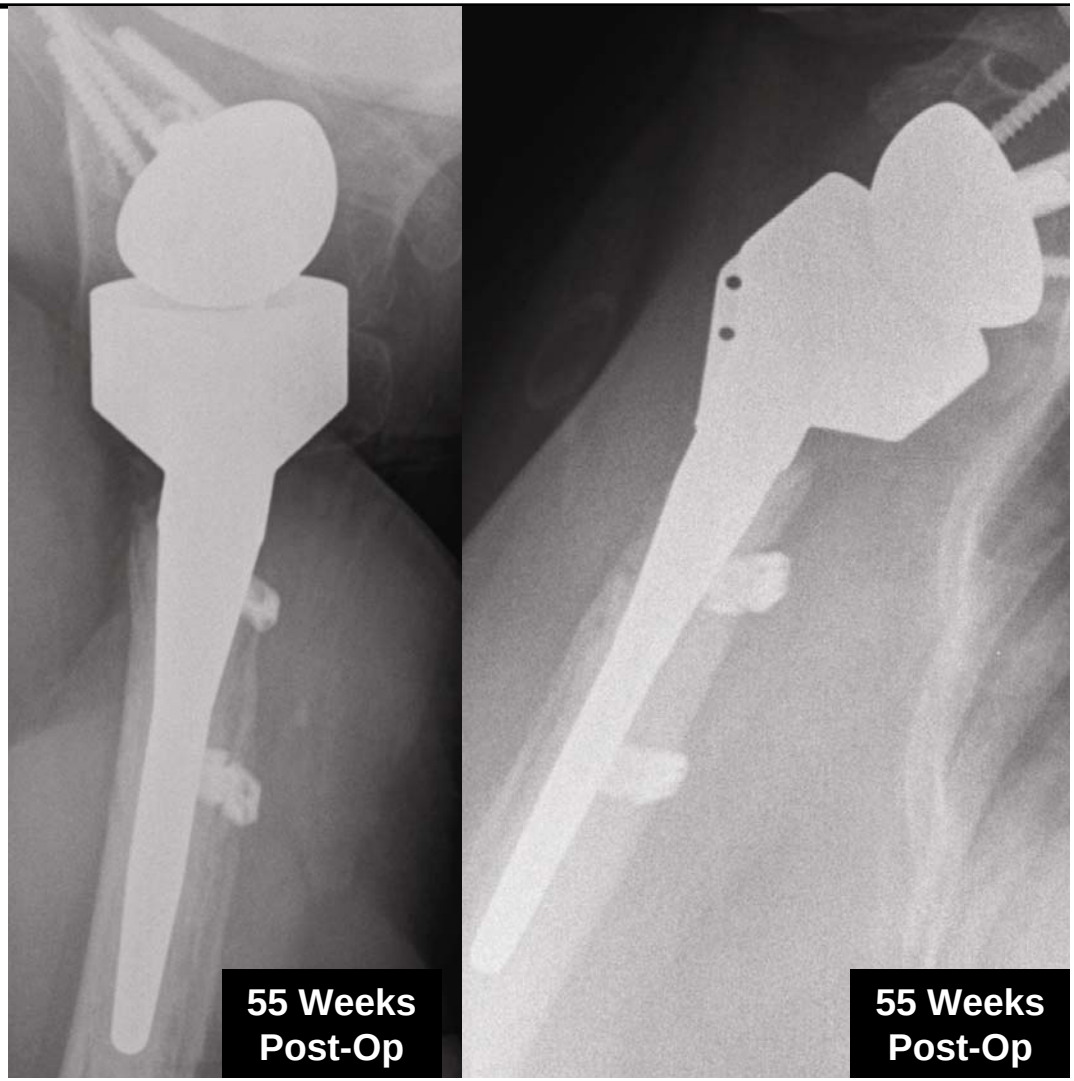
- Revision to reverse prosthesis
- Periprosthetic fracture treated with two cables



Case H: Humeral Revision…

Female

- Revision to reverse prosthesis
- Cables and radiographs appear normal at 1 year follow-up



Case I: Olecranon Fx

41 year old male

- Olecranon fracture initially treated with casting, cast became loose due to patient noncompliance
- Treated with tension band technique
- Clinical union at 4 months
- Cable and instrumentation removed without complication (cable was still tight)