LOCKED PLATING: INITIAL EXPERIENCE WITH THE PERI-LOC SYSTEM
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BACKGROUND

• TRADITIONAL PLATES & SCREWS
  – commonly used for periarticular / selected long bone fractures
  – rely on friction between plate and bone
  – work well in strong bones, young patients
STANDARD PLATES & SCREWS

- poor purchase in osteoporotic bone
- compression of plate on bone can compromise blood supply
- screws loosen, back out
- unable to use as a fixed angle device
LOCKED PLATING

- not new concept
- not widely used until recently
- completely different mechanical properties
- works like an internal splint
- does not rely on friction between plate and bone
LOCKED PLATING

• makes for a fixed angled device
• very helpful in comminuted fractures
• good for osteoporotic bone
• improved fixation
• useful with periarticular fractures
LOCKED PLATING

• biggest recent advance in commercially available plates
• overall use is increasing
PERSONAL PRACTICE

• used some form of locking plates for over 15 years, primarily large fragment cases
• last few years: release of new commercially available systems
• dramatically increased use; now approximately 75 % of my plate and screw cases involve a locking plate
PRIMARY INDICATIONS

- non-unions
- elderly
- comminuted fractures
- periarticular fractures
PERI-LOC

• Peri-articular plating system
PERI-LOC

- highly contoured articular specialty plates
- simple instrumentation
- use with open or minimally invasive technique
- multipurpose screw hole allows for locking or non-locking screws
PERI-LOC: INSTRUMENTATION
PERI-LOC

- multipurpose screw holes
- locking or compression capability all holes
PERI-LOC

• improved plate design: scalloped near joint for screw / wire placement outside plate
CLINICAL CASE

- 50 yr old
- polytrauma
- complex, intra-articular supracondylar distal femur fracture
CLINICAL CASE

• pre-op
tibial traction
pin
CLINICAL CASE

• joint reduced
• stable fixation
• early ROM
CLINICAL CASE

Lateral:
- anterior scalloping
- allowing placement of lag screws
PERIPROSTHETIC DISTAL FEMUR FRACTURE
PERIPROSTHETIC DISTAL FEMUR FRACTURE

- percutaneous insertion of a long Peri-loc distal femoral plate
PERIPROSTHETIC DISTAL FEMUR FRACTURE

- lateral C-arm pictures
PERI-LOC

- minimally invasive techniques
PERI-LOC

• targeting jigs
PERI-LOC

- percutaneous screw insertion
PERI-LOC

• personal experience:
  – last 8 months
  – approximately 60 cases
PERILOC

PERSONAL EXPERIENCE:
• all specialty plate designs
• large and small fragment plates
PERI-LOC: PERSONAL EXPERIENCE

- excellent clinical results
- easy to use
- single drill bit, single screw driver
- better specialty plate fit
- stainless steel advantages over titanium plates
PERI-LOC: SUMMARY

- excellent locked plating system
- good early clinical results
- simple
- very competitive with existing system on the market
- distinct advantages