Fractures Of The Acetabulum: Indications For Treatment

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Research Support:
OTA
Periprosthetic Fx

The Problem
Periprosthetic Fx - Population

- Population Is Aging
- Elderly Are Remaining Active
- >300,000 Total Joints / Year
- Therefore, More Periprosthetic Fxs

Osteoporosis - Epidemic

Estimated that osteoporosis causes approximately 1.5 million fractures every year in the U.S.

Problem - Etiology

Osteoporosis
- Implants (THA, TKA, IM Nails)
- Stress Risers

Periprosthetic Fracture

Periprosthetic Fx's Are An Impending Orthopaedic Tsunami
### Decision Making - Factors
- Is The Implant Stable?
- Is There An Implant Above / Below?
- Is The Right Equipment Available?
- Do I Have The Skill Set?

### Goals Of Treatment
- Stable Fixation
  - Early Motion
  - Early Weightbearing?
- Minimally Invasive
  - If Possible
- Avoid Creating Stress Riser

### Treatment Options?
- Revision TKA
- ORIF FX
Revision Arthroplasty

Indications

- Osteoporosis/Poor Bone Stock
- Unstable Prosthesis
- Patient Will Not Tolerate Limited WB During Fx Healing

Technique

- Oncologic Prosthesis
  - Long Stems
  - Supplemental Cables

Revision Arthroplasty (Loose Implant)

ORIF Options

- Ex-Fix
  - Not Common
- IM Nail
  - Distal Femur
Treatment - IM Nailing

- Requires Adequate Intercondylar Region To Accommodate IM Nail
  - Contraindicated if Closed Intercondylar Box
- Alignment Can Be Difficult To Control

ORIF Options

- Ex-Fix
  - Not Common
- IM Nail
  - Distal Femur
- Plates
  - Locking ?
  - Cables ?
Less Than Ideal Technique

Stress Riser
Regions of Disproportionate Stiffness
- CoCr THA Stem & Osteopenic Femur
- Notched Distal Femur

How To Deal With Stress Risers
Not Long Enough!
- Overlap Implants
  - Long Implant
- Direct Screws Around Implant?
- Unicortical Screws
  - Control Axial Length & Rotation
- Cables
  - Control Bending Forces
How Long Of A Plate

- Span The Length Of The Bone

How Many Screws / Cables?

- Minimum – 2 Screws, 2 Cables
- Optimal – As Many Screws As Possible, 2-3 Cables

Distal Femoral Locked Plating
Sometimes Just Let Nature Do It’s Thing

Thank You