SUPRACONDYLAR FEMUR - Tips & Tricks for Reduction & Fixation

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Classification

• A-C
• Extra-articular
• Partial articular
• Complete articular

Surgical Planning

• Patient Age
  – Young (high energy)
  – Elderly
    • Osteoporotic
    • Previous TKA
    • Previous THA
  – CT Knee
    • Comminution
    • Intra-articular
Surgical Planning Cont.

• Approach
  – Extra-articular
    • Young
      – Retrograde nail
      – ORIF (non-locking)
    • Older
      – ORIF (locking)
      – IMN
      – TKA
      • Known implant
      • Open notch?
      • Size?

  – Locking plate with allograft
    • Most successful
    • 97.4% union at 7.8 months


Surgical Planning Cont.

• Approach
  – Intra-articular
    • Young
      – Simple articular
        » CRPP then Retrograde nail
        » CRPP then ORIF (limited approach)
        » Arthroscopic assistance
    – Complex articular
      » ORIF (non-locking)
      » Extended approach
      » Direct joint visualization

Surgical Planning Cont.

• Approach
  – Intra-articular
    • Old
      – Simple articular
        » CRPP/Locking Plate
      – Complex articular
        » ORIF Locking plate
        » Direct joint visualization?
        • OA?
        • Age
Positioning

• Supine
• Bump under operative leg
• Special instrumentation
  – Periarticular clamp
  – T-handle
  – Pins
  – Sterile bump

Reduction

• Gastrocsoleous
  – Extension of distal fragment
• Hamstrings/Quads
  – Shortening of distal fragment

Reduction Cont.

• Address intra-articular fractures first
• Reduction
  – Traction
  – Bump
  – Reduction screws
Reduction Cont.

Post op Course

- Non WB
- CPM/Early ROM
- Brace for:
  - Osteoporotic
  - Periprosthetic
  - Non-compliant patients
- Healing/Prolonged
  - 6 mo/1 year
- Risk of Non-union
  - To stiff implant
  - To early WB