TKA
Intra-op Misadventures
• CC: Right knee pain
• HPI:
  – 67 year old female, BMI 32
  – Left knee pain,
  – Failed conservative measures
• PMH:
  – Hypertension, hypothyroidism
• Knee Examination:
  – ROM 0-120
  – Stable varus/valgus
  – Normal distal motor sensory examination
• Right primary total knee (OSH)
  – Fixed bearing primary total knee replacement
• Post op day 1
  – Knee unstable but clears PT
  – Discharge home
• 2 weeks post-op
  – Knee feels a bit “unstable” to her, causing falls
  – Continue Physical Therapy
2 weeks post-op
• Left primary total knee (OSH)
  – Attune fixed bearing primary total knee replacement
• Post op day 1
  – Knee unstable but clears PT
  – Discharge home
• 2 weeks post-op
  – Knee feels a bit ”unstable” to her, causing falls
  – Continue Physical Therapy

• 4 weeks
  – Continues to fall
  – Patella not tracking well
  – X-rays
4 weeks post-op
• Take back to OR (OSH)
  – Planned lateral release and medial retinaculum reconstruction
  – Intra-operative knee instability “more than expected”
  – Referral for from OSH for revision
EUA
What’s wrong?
How do you fix this?
• Post-operative course:
  – WBAT
  – PO antibiotics x1 week
  – ROM as tolerated

• Talking Points:
  – Intra-operative management of MCL disruption in primary TKA?
  – Chronic MCL disruption management?
TKA Instability - MCL Injury Prevention

- Occurs making tibial cut or posterior medial femoral cut
- Protect MCL with retractor
- Recognize problem repair MCL / hinge knee brace x 6 weeks
- Increase constraint to protect repair

Repair of Intraoperative Injury to the Medial Collateral Ligament During Primary Total Knee Arthroplasty

- 1.2% incidence 48/3922 TKAs
- Repair + bracing = no instability
Intra-op complication #2
• CC: Right knee pain
• HPI:
  – 65 year old female, BMI 38
  – Left knee pain
  – Increasing pain, decreasing function
  – Failed conservative measures
• PMH:
  – Hypertension, hypothyroidism
• Knee Examination:
  – ROM 0-120
  – Stable varus/valgus
  – Normal motor/sensory exam
• Left primary total knee (OSH)
  – Fixed bearing primary total knee replacement
  – Tibial stem (↑BMI small tibial size)

• Post op day 1
  – Unable to bear weight due to pain
  – Did not pass PT
  – Discharged to SNF post-op day 2

• 2 weeks post-op
  – Clinic visit due pain and inability to bear weight
  – X-rays obtained
2 weeks post-op
What are your options ??
• CT
  – Minimal bone attached to femoral component
  – Tibial component stable
Revision TKA
Both components
LPS hinge
Metaphyseal fixation
• Post-operative course:
  – Toe touch weightbearing x 2 wks then WBAT
  – PO antibiotics x1 week (longer?)
  – ROM as tolerated

• Talking Points:
  – How do you judge femoral rotation?
  – Femoral fixation strategies?
  – Intra-operative management of:
    • Notching in primary TKA?
    • Distal femur fracture in primary TKA?
Outcomes of Surgical Management of Supracondylar Periprosthetic Femur Fractures

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Distal Femoral Arthroplasty for Management of Periprosthetic Supracondylar Fractures of the Femur

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Periprosthetic Supracondylar Femoral Fractures Above a Total Knee Replacement: Compatibility Guide for Fixation With a Retrograde Intramedullary Nail

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JOA 2014
Case # 3

- 70 y.o. female primary TKA for OA
- Surgeon recognized patella lig. injury from saw blade “partial cut”
- Primary repair with non absorbable suture
- “Seemed stable”
- 3 weeks post op knee gives way
How do you fix this ??
Reconstruction of Patellar Tendon Disruption After Total Knee Arthroplasty

Results of a New Technique Utilizing Synthetic Mesh

James A. Browne, MD, and Arlen D. Hanssen, MD

*Investigation performed at the Mayo Clinic, Rochester, Minnesota*