Failed Hip Procedure

**Now What?!**

- Incorrect Diagnosis
- Incorrect Procedure
- Insufficient Procedure
- Incorrect Rehabilitation
- Insufficient Biology
- New Problem/Pathology (includes iatrogenic)

*Sometimes it was never an orthopaedic problem*
Hot Sexy Diagnoses

• Hip instability
• Chondrolabral dysfunction
• Gluteal tears
• Femoroacetabular impingement
• Atypical impingement: ischiofemoral/subspinous

Hip Pain: 1990s

• Osteitis pubis
• Stress fracture
• Muscle strain/avulsion
• Sacroiliitis
• SCFE  **Most studies read as normal**
• Arthritis

Hip Pain: 2010s

• Labral tear
• Femoroacetabular impingement
• Muscle strain/avulsion/core muscle injury
• Arthritis
• Cysts  **Most studies read as abnormal**
• Stress fracture

Labral Tears are Traumatic in Origin

Labral Tears are Atraumatic in Origin

Courtesy NBC-SNL
Hip at Risk

- Contact athletes: Kinetic Chassis Athlete
  - Athlete’s Hip / Sports Hip
  - FAI / Labral Tear / Borderline Dysplasia / Microinstability
- Extreme physiology athletes: Supraphysiologic Motion Athlete
  - Dancers / Gymnasts / Snowboarders / Softball / Figure Skaters / Martial Arts
  - Dysplasia / Labral Tear / IFI / Macroinstability
- Special circumstances
  - SLY / LCP / Ehlers-Danlos
  - Used Tissue: extraarticular (chondrolabral) and extraarticular (avulsions)
  - Baseball Catchers – AIS Subspinous Impingement

Sports Medicine is on the front lines of this epidemic

Modes of FAI Surgery Failure

- Unstable chondrolabral interface
- Progressive hip OA
- Over or Under Resection Femoroplasty and Acetabuloplasty
- Biceps complaints
- Capsulolabral adhesions
- Extraarticular impingement
- Instability
- Dysplasia: acetabular and femoral
- Extraarticular Other: CMJ, Psoischien, Sciatic, IF Space
- Autimmune
- Neoplasm
- Rehabilitation

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Critical Questions

• Is the pain the same?
• Are you better or worse compared to preop?
• Response to diagnostic injections?
• What is patient expectation?
• What is surgeon expectation?

Timing of Outcomes: when to call it

History of Complaints

• Pain: Same or Different from Preop
  – Same: CL interface, FAI, Extraarticular, OA
  – Different: Adhesions, Rehab Related
• Mechanical Symptoms: Iliopsoas, OA
• Night pain: neoplasm, OA
• Weight bearing pain: OA, radiculopathy

Primary Decision Driver for Imaging

• History of Complaints
• Physical Examination Findings
Nine Theories
Why Does the Cartilage Tear?

Clinical Evaluation of Hip
• History
• Physical Examination
• Plain X-Ray Films
• MRI: dedicated hip
• Diagnostic injections
• Other
  • CT/MRI: 3D→4D Reconstruction
  • Lumbar spine work-up
  • Rheumatology work-up

Suspect Intraarticular Diagnosis
• Hip Pain: “C-sign”
• Loss of range of motion: asymmetry
• Positive provocative tests
• Functional hemipelvic muscle weakness/dysfunction
• Radiographic Findings
Suspect Extraarticular Diagnosis

- Pelvis, Lumbar, Radiculopathic Pain
- Hip range of motion is symmetric
- Negative provocative tests
- Selective muscle weakness/dysfxn
- Soft Radiographic Findings

Physical Exam

- Inspection
  - LLD
- Palpation
- Range of motion
  - Symmetry
  - Stress tests
- Ligament testing
- Functional Testing
- Gait

Physical Exam Keys

- Asymmetric range of motion
  - Flexion
  - Internal Rotation @ 90
  - FABER Test
- Positive impingement test
  "FADIR" Test
Modified FABER Test

Imaging Tools
- Plain film
- MRI
- Fluoroscopy
- CT
- Ultrasound

Dynamic Software Analysis

Why I Avoid Contrast
Intraarticular Failures

Capsulolabral Adhesions

Labral Tear s/p focal debridement
Labral Deficiency  
s/p labral debridement

Capsular Defect

Subchondral Edema  
Consistent with Grade IV CM
Anchor Placement Assessment: OK

Body Sagittal MRI

MRI Anchor Placement: OK

Anchor Erosion
Anchor Cysts
HA-PLLA anchors s/p two years labral repair

Inadequate Resection Mixed FAI

Inadequate Femoroplasty
Extraarticular Failures

Left CMI on MRI

Right Inguinal Hernia
Dysplasia Failure

Pelvic Lymphoma

Excessive Femoral Antetorsion

+/- ilipsoas release
Osteochondroma

PreOp

PostOp

Inflammatory Arthropathy
Role of Bone Scan

Osteoid Osteoma
Spondylolysis

Summary

• History and Physical Exam still matter
• Utilize advanced imaging and analysis
• Patient risk assessment to avoid failed FAI surgery

Thank You!