Hip Arthroscopy: Current Indications

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Overview

• Hip Injuries
  • Misdiagnosed
  • In the past, athletes were told to “live with it”.
  • Diagnostic Delay

• New Concepts
  • Labral Preservation/Repair.
  • Femoroacetabular Impingement (FAI)

• New Instruments
  • New distraction attachments.
  • Longer instruments.
  • Curved shavers and ablators.
Extra-Articular Hip Pain

- Muscular Strain
  - Iliopsoas
  - Gluteus Medius
  - Hamstring

- Bursitis
  - Trochanteric
  - Psoas
  - Ischial

- Stress Fracture (Women)

- Avulsion Injuries

- Infection
FEMORAL STRESS FX
## Indications

- **Femoroacetabular Impingment**
  - CAM (femur)
  - Pincer (acetabulum)

- **Labral Tears**
  - Paralabral cysts

- **Chondral Lesions**
  - Acetabular margin
  - Microfracture

- **Loose Bodies**

- **Ligamentum Teres Tears**

- **Extra-Articular**
  - Iliopsoas (THA)
Hip Arthroscopy

- **Goals**
  - Hip Preservation
  - Limit iatrogenic labral or chondral damage
  - Labral repair (not removal)
  - Manage chondral damage
    - Microfracture
  - Aggressive management of bone impingement
  - Recognize external sources of pain
    - Iliopsoas
    - IT band
    - Gluteus medius

- **Ganz et al. CORR 2003.**
Deep Gluteal Syndrome

- Proximal Hamstring tears
- Piriformis Syndrome
  - Sciatic nerve
- Ischiofemoral impingment
- Trochanteric bursitis
- Gluteus medius tear/tendinosis
Anatomy of the Labrum

- Fibrocartilaginous rim that overlies the articular cartilage and surrounds the perimeter of the acetabulum, except at the base, where it attaches to the transverse acetabular ligament

- Triangular in cross section
  - Widest anteriorly and superiorly; thickest superiorly
    - Corresponds to weight-bearing region of acetabulum

- Normal posterior labral sulcus should not be mistaken for pathology
Function of Labrum

- Deepens acetabulum by approximately 21%
- Vascular supply comes mostly from the capsule
  - Kelly et al. Arthroscopy 2006
- Creates a seal of the hip joint
  - Maintains hydrostatic pressure enhancing lubrication
  - Maintains negative pressure enhancing stability
- Reinforces acetabular rim
  - Contributes to containment of femoral head at extremes of motion
  - Contributes to joint stability

Ferguson et al: J Biomech 2001
Etiology of Labral Tears

- Trauma (14%)
  - Usually repetitive trauma
- Femoroacetabular Impingement (43%)
- Capsular Laxity/Instability (25%)
- Dysplasia (4%)
- Degenerative (14%)

Isolated treatment of labral tears without addressing the underlying causative factors will result in poor outcomes
### Static vs Dynamic

**Static**
- Excess Anteversion
- Hip dysplasia
- Direct load on the labral-chondral junction
- High risk
  - Labral re-tear
  - OA
  - post-op instability

**Dynamic**
- FAI
  - Pincer
  - CAM
  - Hyper-mobility
Presentation

- Patients typically 25-40 years of age
- Mean delay in diagnosis: 7-21 months
- Groin pain is most common complaint
  - Anterior groin: 92%
  - Lateral hip: 59%
  - Deep within the buttocks: 38%
- Worse with activity, especially repetitive twisting and pivoting motions
  - Pain with prolonged hip flexion (sitting)
  - Pain after activity

Presentation

- 70% of patients present with insidious onset of symptoms.
- 30% of patients present with symptoms following a fall, pivoting or twisting injury, or other minor trauma.
  - Hyperextension/Femoral external rotation is most common injury mechanism for anterior labral tears.
  - Tight anterior capsule?
- Posterior labral lesions often occur following axial loading of the hip in a flexed position.
  - Dashboard injury.
  - Dislocations (femoral chondral lesions)
    - Philippon et al. Arthroscopy 2009
Conservative

- Identify at risk athletes
  - Pre-season screening
  - ROM testing
  - X-rays

- Prone Stretching
- Eliminate hyperflexion exercise
  - Squats/lunges
- Gluteal Based Strengthening
- NSAIDS
Snapping IT Band

**Causes**

- Tight and/or weak IT band
- Snaps over Gr. Troch
- Inflamed troch bursa
- Usually painful from ext to flexion
- Thickened posterior IT band - common finding
Iliopsoas Snapping

- Hip Flexion
  Tendon shifts lateral

- Hip Extension
  Tendon shifts medial
Snapping Iliopsoas Syndrome

Physical findings

- Volitional
- Reproducible, painful snapping
  
  *Hip flexion, abduction, external rotation to Hip extension and internal rotation*

- Snap inhibited by direct pressure over tendon
Thank You