Arthroscopic Treatment of Hip Injuries

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Disclosures

• None

Anatomy

• Hip

- Ball and socket joint
- Concentric





Anatomy

- Labrum
 - Cartilaginous rim
 - Surrounds acetabulum
 - Creates suction seal of hip joint





Causes of Hip Pain

- Muscle / Tendon Injuries
 - Adductor Strain
 - Groin Pull
 - Proximal Quadriceps Strain
 - Common in kicking or sprinting sports
 - Proximal Hamstring Strain
 - Water Skiing
 - Avulsion off ischial tuberosity
 - Sports Hernia
 - Recognized more frequently





Causes of Hip Pain

• Bone

- Dislocation
- Femoral neck stress fractures
 - Common in endurance sports
- Femoroacetabular Impingement
 - FAI





Dislocation

- Location
 - Anterior
 - Less common
 - Posterior
 - Most common in MVC
 - Rare in sports
 - Fall onto flexed knee
- Associated Fracture
 - Acetabular wall
 - Determines stability
 - Labral injury
 - Cartilage injury







Dislocation

- Diagnosis
 - X-ray
 - CT Scan
- Treatment
 - Emergent reduction
 - Closed vs. Open
 - Arthroscopic
 - Loose bodies within the joint once reduced





Dislocation

- Long Term Considerations
 - Avascular Necrosis
 - Development of Arthritis
 - Recurrence of Instability







- What is it?
 - As hip is taken through range of motion, contact between proximal femur and rim of acetabulum
 - Result is abnormal stresses placed on articular cartilage and labrum
 RANGE OF MOVEMENT



Anatomy

- Proximal Femur
 - Head / neck junction developmental variation
 - Abnormal contour or offset of femoral head and neck



Anatomy

- Acetabulum
 - Socket of hip
 - Variable depth and tilt or version



Acetabulum



- How does it occur?
 - Abnormality of femoral side
 - CAM lesion
 - Loss of normal contour of anterior femoral head/neck junction





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- Abnormality on acetabular side
 - Overcoverage of femoral head
 - Pincer lesion





- What is the result?
 - Labrum is crushed between bony abnormalities leading to a tear





Labral Tear

- The labral tear is a result of the bony abnormality about the hip
- Rarely occurs without impingement
- Treatment must address the labral tear but also the underlying bony abnormality that caused tear



Physical Exam

- Hip Range of Motion
 - Usually loss of internal rotation secondary to bony impingement
 - May also include loss of hip flexion





Physical Exam

- Pain
 - Flexion
 - Adduction
 - Internal Rotation







Diagnosis

- Radiographs
 - AP pelvis
 - Frog lateral hip





Advanced Imaging

• MRI

- May diagnose labral tear
 - Very common but not always symptomatic
 - Contrast not usually necessary







Advanced Imaging

- 3D CT Scan
 - Helpful in showing three dimensional view of bony abnormality



Treatment

- Nonoperative
 - Physical Therapy
 - Pelvic stabilization
 - Core strengthening
 - Relative Rest
 - Anti-inflammatories
 - NSAIDs







Treatment

Nonoperative

- Intra-articular cortisone injection
 - Usually performed under fluoroscopic guidance
 - May provide both diagnostic and therapeutic benefit





Operative Treatment

Hip Arthroscopy

- Relatively new procedure
- Gained popularity in last 10-15 years
- Better techniques
 - Better understanding of pathology





Operative Treatment

- Hip Arthroscopy
 - Outpatient procedure
 - Distract hip joint





Hip Arthroscopy

- Evaulate and Treat
 - Labral Tears
 - Chondral Injuries
 - Synovitis
 - Bony Impingement
 - CAM Lesion
 - Femoral side
 - Pincer Lesion
 - Acetabular side





Rehabilitaion

- Protected weight-bearing
 - 2-6 weeks
- Early range of motion





Rehabilitation

- Gradual strengthening
 - Core
 - Hip abductors
 - Quads
 - Hamstrings





Return to Sport

- 3-4 months institute running program
- Full return to sport in 4-6 months





Questions???











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