Hip Pain: Diagnosis and Treatment

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Disclosures

- Consultant for Smith & Nephew corporation
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- Advanced training in hip arthroscopy and knee cartilage reconstruction
- FIFA medical center of excellence
- Professional/college sports exposure
Why Arthroscopy?

- Lower complication rates than open
- Outpatient surgery
- Faster Rehabilitation Rate than open
- Minimal blood loss
- Better Cosmesis

References:

Why a Fellowship trained hip specialist?

- Revisions don’t do as well
- Higher patient hip scores and satisfaction rates
- Lower complication rates
- Less iatrogenic injury

References:
Hip Pain

HIP PAIN: WHERE?

POINT

• BUTTOCK/SI joint
• LATERAL
• FRONT
  • True hip pain

BUTTOCK/BACK

LIKELY LUMBAR RADICULAR PAIN

• Rarely hip-injection
• SHORT TERM
  • START PT, NSAIDS
• IF WEAKNESS OR SEVERE RADIATING
  • MRI / refer
• SI joint pain
  • Chiropractic care/PT
Lateral Hip Pain
Trochanteric Bursitis

• Lateral Hip pain
• Pain radiating down lateral leg
• Lateral knee pain
• Hip tightness/pain
  • Figure 4

Trochanteric Bursitis Findings

• Tenderness along lateral hip
• Pain can extend down lateral leg
• IT band can cause external snapping
Radiographs and MRI
Rule out abductor tear if weakness present

Trochanteric Bursitis
Nonoperative treatment

- Always pursue nonop
- NSAIDs
- Physical Therapy
- Injections
- Nearly always curative
Arthroscopic IT Band Lengthening and Bursectomy

- Trochanteric Bursitis is very common
- If patients do not respond to conservative treatment excision of the bursa can be performed arthroscopically
- In patients who have a tight IT band an IT band lengthening should be performed with the bursectomy.

Indications for surgical intervention:
- Patients exhibit a lack of response to nonoperative therapy consisting of activity modification, physical therapy, NSAIDs, and local injections of corticosteroids and anesthetics.
- Patients who have a diagnosis confirmed by a good pain relief response to an anesthetic injection into the trochanteric bursa.
Arthroscopic IT Band Lengthening and Bursectomy

• Spinal needle is inserted directly onto the trochanteric prominence.

• 30 to 40 mL of NS is injected into the bursa, creating a space

• Proximal portal is created 2 to 3 cm proximal to the trochanter, and a distal portal is created 2 to 3 cm distal to the trochanter.
Arthroscopic IT Band Lengthening and Bursectomy

- Scope is introduced directly into the subcutaneous tissues above the IT band.
- A shaver is placed in the other portal and localized to the arthroscope with a triangulation technique.

Arthroscopic IT Band Lengthening and Bursectomy

- IT band identified, the ablator is used to create a longitudinal incision in length in line with the fibers of the IT band just slightly posterior to its midline to expose the trochanteric bursa.
**Arthroscopic IT Band Lengthening and Bursectomy**

- Abduct the leg to assist instruments underneath the IT band.
- Debride the bursa and its adhesions.
- IT band lengthening procedure in addition to the standard bursectomy.

**Arthroscopic IT Band Lengthening and Bursectomy**

- Open and arthroscopic treatments result in a high percentage of good outcomes.
- Arthroscopic is less invasive with better cosmesis.
- No wound pain or issues over the lateral hip with arthroscopy.
- Most patients symptoms will be relieved with non-operative treatments.
Anterior Hip pain
True hip problem

- Osteoarthritis
  - Radiographic diagnosis
  - Exam
  - Age
- Labral tear/Impingement
  - History-sitting pain
  - Exam-C-sign, Fadir
  - Radiographs-impinge?
  - MR arthrogram confirm

Anterior Hip pain
RADIOGRAPHS
Anterior Hip pain
RADIOGRAPHS-Osteoarthritis

- Age
- < 2mm of joint space on radiographs.
- Phytes. misshapen
- Examination less reliable
  - Stiffness
  - C-Sign
  - FADIR test
  - Resisted Straight leg ise
Osteoarthritis
Nonoperative Treatment

- Guided injection
- PT
- NSAIDs
- Ergonomic - limit ladders stairs, repetitive hip flexion

Osteoarthritis
Operative Treatment

- Arthroplasty
  - Homerun
  - Successful
- Arthroscopy
  - >2mm joint space
  - Evidence of grade 4?
    - 50/50%
Labral Tear/Impingement

- Labral Tears
- Impingement
  - The culprit

What is the labrum?

- The **labrum** is a rim of soft tissue that surrounds **hip** socket
- Adds stability/depth
- Suction Seal
- Tears Lose suction 2x forces
What is hip impingement (FAI)?

- Hip impingement is a condition where the bones of the hip are abnormally shaped
- Causes wear, tears
- Ball and or socket
  - Ball-CAM
  - Socket-Pincer

Hip impingement CAM Deformity/Pincer

- CAM misshapen femur
Hip impingement
CAM Deformity/Pincer

- CAM misshaped femur

Hip impingement
CAM Deformity/Pincer

- Pincer misshapen socket
  - Overcoverage
  - Undercoverage
    - Dysplasia

acetabular rims and central edge (Wilberg angle)
Complaints: Labral Tear
“Symptomatic Impingement”

- Groin pain
- Anterior hip pain
- Sitting pain
- Pain with hip flexion
- Reduction of hip internal rotation

Findings: Labral Tear

- C-sign
- FADIR test
- Decreased hip ROM-impinge
  - Flexion and IR
- Stinchfield test
  - Resisted SLR
Radiographs and MR arthrogram

Labral Tear Nonoperative Treatment

- Subtle acute tears
- Osteoarthritis

Treatment options:
- Guided injection
- PT
- NSAIDs
- Ergonomic - limit ladders, stairs, repetitive hip flexion
Labral Tear
Operative Treatment

- Full Thickness tears
- Minimal OA
- Chronic tears
- Impingement

Approach to Hip Arthroscopy

- Fracture table
- 25-50lb traction
- Need 8-12mm joint space opening
- Operative leg is positioned in 10 deg abd, neutral flex, and neutral rotation.
Approach to Hip Arthroscopy

- Schematic of positioning for anterolateral portal with 18 g needle
- Place guide wire through needle, place cannulated trocar then scope

Approach to Hip Arthroscopy

- Image of anterior portal 18g needle, guide wire and trocar placed
Arthroscopic Labral Repair for labral tears

- Labral tears and impingement are the most common pathologies that are treated with hip arthroscopy

Arthroscopic Labral Repair Introduction

- Important to realize not only should the labral tear be fixed but the underlying problems need to be addressed.
- Particularly in regards to Impingement
- Impingement treatment is key to preservation
- Led to early poor results with hip arthroscopy
Arthroscopic Labral Repair Technique

- Most lesions are anterior and can easily be treated via two small incisions

Outcomes
- Dependent on articular surface involvement.
- 90% pts. excellent result if the chondral surfaces are intact.
- Significantly better results with repair vs debride
- Grade I or II chondral lesion 70 to 80% will have good to excellent results.
- If the articular cartilage involvement is full thickness and diffuse 40 to 50% will require total joint arthroplasty within two years of arthroscopy
Arthroscopic Labral Repair

Hip impingement
“The culprit”

- The labrum eventually separates from the acetabular articular cartilage edge
Hip Impingement
Femoral Osteoplasty

- Cam (femoral) deformity associated with premature OA
- Higher alpha angle higher chance of OA
- Tends to occur in young males
- Must be addressed burr
- Most difficult part of procedure

Arthroscopic Femoral Osteoplasty-Technique

- Relieve the abutment between the head and the acetabular rim
Arthroscopic Rim Resection

- Isolated pincer impingement tends to occur in middle aged women

Hip Labral Reconstruction Salvage Procedure

Previous labral debridement, insufficient labrum
Hip Labral Reconstruction
Salvage Procedure

Completely replace labrum with allograft
Hip Pearls

- True hip pain is in the front. C-Sign/Fadir
- Osteoarthritis is a radiographic diagnosis
- Buttock think back
- Labral tears have seen you. Have you seen them?

Thank You

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