Greater Trochanteric Pain Syndrome

I (and/or my co-authors) have something to disclose.

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Printed Final Agenda

AAOS Orthopaedic Disclosure Program on the AAOS website at http://www.aaos.org/disclosure

Greater Trochanteric Pain Syndrome

- Disorders of the peritrochanteric space of the hip
  - Trochanteric bursitis
  - Gouty arthritis and pseudo-gout
  - Labral tear
  - External coxa saltans

10-25% General population

- Middle age population
- Females > males

20-22% of Gluteus Medius tears are found incidentally at time of THA.
Gluteus Medius & Minimus Tears

- Lateral hip pain
  - Lateral decubitus
  - Night pain
- Gait abnormalities
  - Cane or walker
- Physical exam
  - Trendelenberg sign
  - TTP trochanter
  - Weakness with abduction
- Treatment with NSAIDs & PT
- Steroid injections: respond to cortisone injections
- Pain refractory to conservative treatment consider MRI

Natural History of Rotator Cuff Tears

Rotator Cuff Tears of the Hip
• N = 30 Patients

• Goutallier/Fuchs Classification
  • Inter-observer reliability 0.872
  • Intra-observer repeatability 0.916

Stage 0

Stage 1
• N = 30 Patients
• Goutallier/Fuchs Classification
  • Inter-observer reliability 0.872
  • Intra-observer repeatability 0.916
• Clinical Outcomes
  • 2 Failures converted to Glut Max Transfer
  • VAS 6.1 → 1.7 (P<0.005)
  • MHHS 55.4 → 80.5 (P<0.005)
• Fatty Atrophy Correlation
  • Pain
  • Tenderness
  • Satisfaction

Natural History of Gluteus Medius Tears

- Trochanteric Bursitis
- Trochanteric Tendinopathy
- Partial GMT
- Full GMT
- Massive GMT
- Single Row Repair

Case Example

52 yr old woman with a 3 year history of hip pain that began after a boot camp class. She has been treated with activity modification, PT, and injections.

Physical Exam
0 to 95 degrees, IRF 15, and ERF 30.
4/5 strength with hip flexion
4/5 strength with hip abduction.
TTP to palpation over the greater trochanter

Plain Radiographs

MRI
MRI

What would you do?
Gluteus Medius and Minimus Footprint


Endoscopy PAGTA


Diagnosis, Evaluation, and Endoscopic Repair of Partial Articular Gluteus Tendon Avulsion


All-Endoscopic Single-Row Repair of Full-Thickness Gluteus Medius Tears


Double Row Suture Bridge

Outcomes

- Endoscopic: Voos et al. AJSM 2009
  - 10 Patients with 25 month follow-up
  - Hip Arthroscopy with Trochanteric Bursectomy and Repair of Gluteus Medius Tear
  - All Patients with complete pain resolution
  - Significant improvement in clinical outcome scores
    - MHHS 94
    - HOS 93
  - No Complications

- Open: Walsh et al. J Arthroplasty 2011
  - 72 Patients with 90% pain-free or minimal pain (P<0.00001)

- THA: Rajkumar et al. Hip Int. 2011
  - 11 Patients after THA
    - HHS 77.4 → 86.9
    - 9/11 Satisfaction

Endoscopic Gluteus Medius/Minimus Repairs

- Systematic review comparing open and endoscopic gluteus medius / minimus repairs based on 8 articles
  - 90% Women
  - Both open and endoscopic repairs
  - Good to excellent functional outcomes
  - Low complication rate
  - Retear rate
    - 9% Open
    - 0% Endoscopic

Rehabilitation

• Phase I:
  • 20 FWB w/ crutches/walker 6-8 wks
  • Hip orthosis and night abduction splint x 6 wks
  • Passive ROM and circumduction

• Phase II:
  • Gait training
  • Progress off crutches/walker to cane
  • Core, trunk, and proximal motor control
  • Closed chain LE strength

Final Thoughts...

• Patients with recalcitrant lateral hip pain likely has evidence of gluteus medius or minimus tear
• Be familiar with MRI to detect g. medius or g. minimus tears (PAGTA)
• Use intra-operative dynamic assessment to identify undersurface tear at g. medius and g. minimus interval
• Early repair favors endoscopy!

Thank you!

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