

1  **The Rotator Cuff of the Hip**

2 

Hip pain is common, extensive differential

- joint: arthritis
- femoral head: AVN, TOP, fracture
- periarticular
- lumbar spine disease

3 

Periarticular hip pathology

- muscle tears
 - quadratus femoris
 - iliopsoas tear
 - tensor fascia latae
 - gluteal
- bursitis

4 

Lateral hip pain

- L4-5 nerve root: gluteus medius muscle innervated by L5
- bursitis
- muscle tear, tendinopathy (+/- calcific)

5 

Anatomy of the greater trochanter

- 4 facets
 - anterior: minimus
 - lateral: medius
 - superoposterior: medius
 - posterior: maximus (tears unusual)

6 

Lateral hip bursae: from none to many

- trochanteric: curves around posterior trochanter, superficial to posterior facet
- subgluteus medius: superior part of lateral facet
- subgluteus minimus: anterior, beneath gluteus minimus tendon

7 

- subgluteus maximus: 1-4 bursae
 - 1 or 2 superficial to common attachment of medius, minimus and vastus lateralis
 - 1 or 2 deep surface of maximus muscle at insertion into fascia lata
 - may communicate with trochanteric bursa

8 

9 

TWO ISSUES OR ONE?

Bursitis

- common diagnosis
- chronic lateral hip pain
- tenderness over greater trochanter

10 

Clinical similarities between trochanteric bursitis & gluteal tears

- female
- “elderly” (62-79, mean age 70)
- no underlying medical condition

- no history of trauma
- lateral pain +/- altered gait
- weeks to months

11

Greater trochanteric pain syndrome (GTPS): preferred term

- physical findings overlap
- bursitis often lacking

12

Rotator cuff of the hip

- gluteus minimus & medius tendons = cuff
- (trochanteric) bursa = SA/SD bursa

13

Imaging GTPS

- radiography: calcification (calcific tendinopathy, HADD)
- scintigraphy (increased uptake)
- MRI: confusing

14

Indirect signs of tendon tear

- muscle atrophy
- trochanteric spurs (d dx DISH)

15

Gluteal tendinopathy: MRI

- peritendinitis: soft tissue edema around intact tendon
- tendinosis: thickening, increased T2 signal
- partial tear: focal absence of tendon fibers
- complete tear: tendon discontinuity, avulsed bone fragment

16 

In reality...

- extensive edema is common
- tendon thickening is hard to depict
- often impossible to tell fluid due to partial tear from fluid in bursa

17 

Bursitis and abductor pathology of the hip: Are they interrelated?

- trochanteric bursitis may predispose to gluteal tendon abnormality
- gluteal HADD may predispose to tendon rupture
- tension in the IT band may lead to friction and trauma to tendons & bursae

18 

Bursal fluid

- likely a secondary manifestation rather than the primary source of symptoms (think shoulder)

19 

Tendon vs. bursa fluid?

- cannot always tell

Which tendon?

- more than one usually abnormal

Does it matter?

- localization for injections (???)

20 

Tendinopathy is likely responsible for the GTPS

However... nonspecific!

21 

Peritrochanteric abnormalities are not specific

- patients with GTPS always have peritrochanteric T2 abnormalities; normal makes dx unlikely
- 50% of w/o trochanteric pain have abnormalities (all ages)

