Trochanteric Bursitis, Greater Trochanter Pain Syndrome

Diagnosis/Condition: Enthesopathy of hip region, bursitis of hip, trochanteric tendonitis

Discipline: DC, ND
ICD-9 Codes: 726.5
ICD-10 Codes: M70.60, M70.70, M76.10, M76.20
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Trochanteric bursitis, or greater trochanteric pain syndrome (GTPS), is one of the most common causes of hip pain.1 This condition has traditionally been thought to result from inflammation of one or more bursae about the hip joint, however further evaluation using surgical, MRI and ultrasound imaging suggests there is little or no inflammatory bursal component.2,3,4 Gluteal tendinopathy may be a more correctly descriptive term which involves pathology of the hip abductors similar to the intrinsic changes seen with rotator cuff pathology in the shoulder.5 A diagnostic label of GTPS takes in to account the lack of evidence of inflammation. The condition appears to some as a muscular dysfunction and there is some association with acetabular anteversion.6

There are two major bursae of the hip, trochanteric and ischial, which can both be associated with stiffness and pain around the hip joint. The trochanteric bursa is located between the iliotibial band and the greater trochanter of the femur. Trochanteric bursitis frequently causes tenderness of the outer hip, making it difficult for patients to lie on the involved side, frequently making sleep difficult. It also causes a dull, burning pain on the outer hip that is often made worse with excessive walking or stair climbing. The ischial bursa is located in the lower buttock area. It can cause dull pain in this area that is most noticeable climbing up hill. The pain sometimes occurs after prolonged sitting on hard surfaces, hence the names "weaver's bottom" and "tailor's bottom."

Subjective Findings and History

- **Etiology:** may or may not have history of trauma such as a direct blow or a fall, friction trauma from muscle hypertonicity and overuse (e.g. running on sloped surface, with tight gluteals), genu varum, extreme underpronation, arthritic condition.
- Commonly seen in 40-60 year old patients.
- Well-localized lateral hip pain; may cause radiating pain in the lateral thigh and knee, rarely into the gluteal or low back.
- Patient unable to sleep on the involved side.
- Often aggravated by climbing stairs.
- Degree of discomfort often proportional to degree of activity.

**Objective Findings**
- Postural evaluation, walk with limp, leg length inequality.
- Orthopedic/neurologic examination: Patrick FABERE, log roll and local tenderness show fair interexaminer concordance. Ober test is less so.
- Palpation: Edema and tenderness over the greater trochanter. Tight gluteal muscles.
- Palpation at the lower portion of the trochanter with the hip and knee flexed may elicit a “jump” sign (localized tenderness).
- Can progress to calcific infiltration seen at x-ray.

**Assessment**
- The clinical impression should indicate the specific anatomical structures involved and clinically correlate them with the mechanism of injury, history, subjective complaints, and objective findings.
- Differentiate this condition from iliopectineal and iliopsoas bursitis, which may present with anterior hip pain, and ischial bursitis, which may present with sciatica and pain referred from lumbar spine or SI joint. Also differentiate degenerative joint disease (DJD) of the hip by physical exam or x-ray.
- Regional anesthetic block may be helpful in differentiating the pain of trochanteric bursitis from that of referred pain from the lumbosacral spin or other conditions.

**Plan**

*Passive Care:*
- Manual therapy: manual and instrument assisted soft tissue massage, PNF (Proprioceptive neuromuscular facilitation)/stretching of gluteal and hip abductor muscles.
- Joint manipulation of hip and pelvis. Manipulation of any other lower extremity joint dysfunction (Caution: side posture adjusting on involved hip may aggravate condition).
- Physical Therapy Modalities: control inflammation and pain.
- Kinesiotape.
- Supplementation to control inflammation and pain.
- Medications: NSAIDS, simple nonopioid analgesics like paracetamol (acetaminophen), opioids and adjuvant medications (antidepressants), topicals -simple counter-irritants, , anaesthetic agents such as ketamine, topical tricyclic antidepressants or capsaicin, injectables such as hyaluronic acid and gluco-corticosteroids.
- Botulinum toxin type B.
• Correct leg length inequality.
• Education about disease, treatment, and self-management.\textsuperscript{10,11,12}
• Weight reduction.\textsuperscript{13,14}

Active Care:
• Since GTPS is likely a gluteal tendinopathy, therapeutic exercise to promote tissue repair has been suggested.\textsuperscript{15} Home exercises: eccentric contractions and stretching hip abductors and gluteal muscles. Systematic reviews have concluded that eccentric exercise is more effective than rest in ameliorating tendon pain at various anatomical sites\textsuperscript{16} but no studies specifically relate to the gluteal region.
• Lifestyle changes: avoid running on uneven surface.
• Surgical intervention in chronic cases (rare).\textsuperscript{17}
• Herbs for inflammation: evening primrose oil, devil’s claw (\textit{Harpargophytum procumbens}), capsaicin cream, Phytodolor, and avocado/soya).\textsuperscript{18,19}
• Essential fatty acids.\textsuperscript{20}
• Glucosamine/chondroitin.\textsuperscript{21}

Length of Treatment
• Conservative therapy: 1-3 months.

Referral Criteria
Referral to an appropriate specialist, e.g. physiatrist, orthopaedic surgeon, for further evaluation and treatment.
• May be appropriate after 1-2 months of care without symptomatic or functional improvement.

Resources for Clinicians


Resources for Patients
Medline Plus. Bursitis \url{http://www.nlm.nih.gov/medlineplus/bursitis.html#cat42}
Trochanteric bursitis exercises. University of Michigan Health System. 
http://www.med.umich.edu/1libr/sma/sma_trochant_rex.htm

The Evidence


Clinical Pathway Feedback
CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please use the e-mail address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Clinical Services Department: providers@chpgroup.com

1 Anderson BC. Office Orthopedics for Primary Care: Diagnosis and Treatment, 2nd, WB Saunders, Philadelphia 1999.
7 Ted Forcum, DC. Personal communication. 11/10/2010.
21 McAlindon TE. Nutraceuticals: do they work and when should we use them? Best Pract Res Clin Rheumatol 2006; 20: 99-115