Department of Radiology
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

Musculoskeletal Imaging and Intervention Section Procedures
Trochanteric Bursa Corticosteroid Injection

PREAMBLE
• Inflammation of the trochanteric bursa results in trochanteric bursitis, one of the several etiologies of trochanteric pain syndrome. Other common causes trochanteric pain syndrome include tendinopathy or tearing of the gluteus medius or minimum tendons, and iliotibial band syndrome.
• The common presenting symptom is lateral hip pain that is reproducible on physical exam, as well as tenderness to palpation. One of the most common complaints is being unable to sleep on the affected side.
• Depending on the referring physician and patient characteristics, if on preliminary ultrasound examination there is an unexpected partial tear of the gluteal tendons, we may defer the injection.

RISKS
• Bleeding
• Infection
• Pain

MODALITY
• Ultrasound

PRE-OPERATIVE WORKUP
• Informed consent

Department of Radiology
Musculoskeletal Imaging and Intervention
University of Wisconsin School of Medicine and Public Health Clinical Science Center 600 Highland Ave Madison, Wisconsin 53792-3252
608/263-9387 Fax: 608/263-5112 radiology.wisc.edu/sections/musculoskeletal-imaging-and-intervention

MATERIALS

- Alcohol, ChloraPrep applicator, sterile drape
- 10 mL syringes for skin anesthetic and steroid/anesthetic mixture
- 1% lidocaine (for skin numbing); buffered with 8.4% sodium bicarbonate
- 1 mL triamcinolone acetonide (Kenalog 40 mg/mL)
- Ropivacaine HCL 0.5% (Naropin 5 mg/mL)
- 30G 0.5", 22G 1.5" & 22G 3.5" needles

TECHNIQUE

1. The trochanteric bursa, or subgluteus maximus bursa, covers the posterior facet of the greater trochanter, and extends anteriorly to the lateral facet where the gluteus medius inserts.
2. The patient is positioned in the lateral decubitus position, with the targeted hip facing up. The knees and hips may be somewhat flexed for comfort. A posterolateral approach is used for needle entry with the transducer in the transverse plane. Place the ultrasound transducer directly over the greater trochanter to localize the bursa. If there is a paucity of fluid within the bursa on initial ultrasound examination, the 'clamshell' maneuver may be used to identify the potential space of the bursa. This maneuver involves external rotation of the targeted hip, which will show the gluteal tendons sliding between the bursa and the overlying subcutaneous adipose tissue. Mark the skin at the lateral aspect of the transducer.
3. Prep and drape as per usual and perform local anesthesia.
4. Guide a 22G 3.5" needle within the bursa. Distend the bursa slightly with a small volume of 1% lidocaine.
5. Inject 3 mL of a solution containing 1 mL Kenalog and 2 mL ropivacaine.

Fig 1. Long-axis US image demonstrating the attachment of the left gluteus minimum tendon on the greater trochanter.

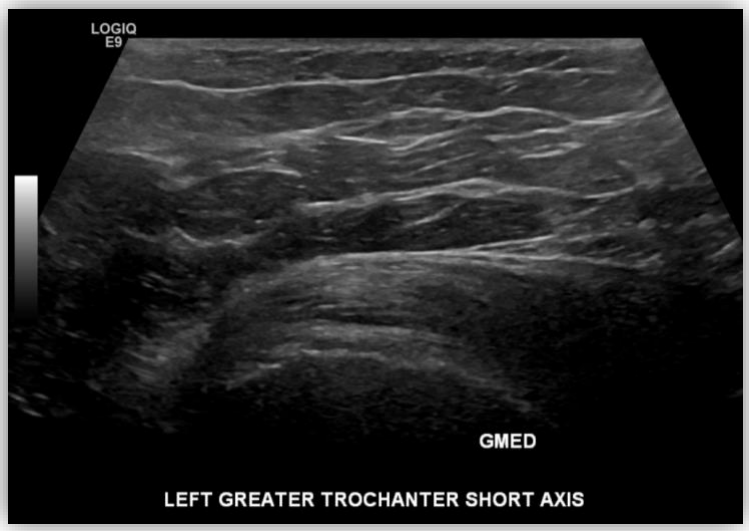

Fig 2. Long-axis US image demonstrating the attachment of the left gluteus medius tendon on the greater trochanter.

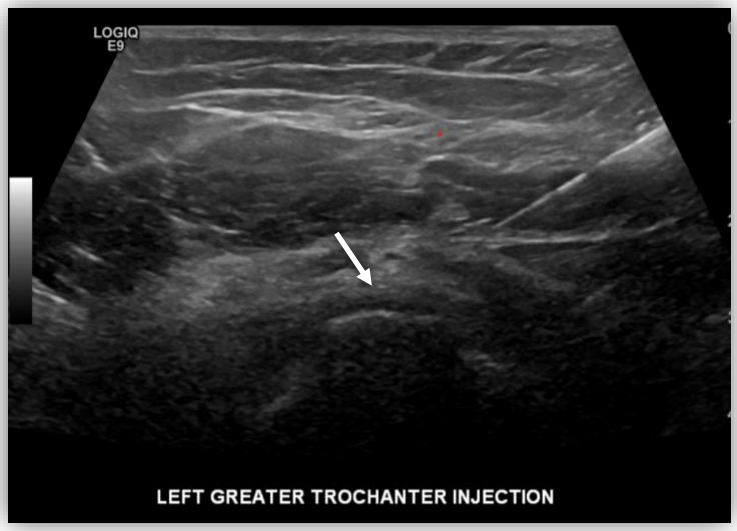

Fig 3. Short-axis US image showing appropriate needle tip position within the trochanteric bursa overlying the gluteus medius tendon.

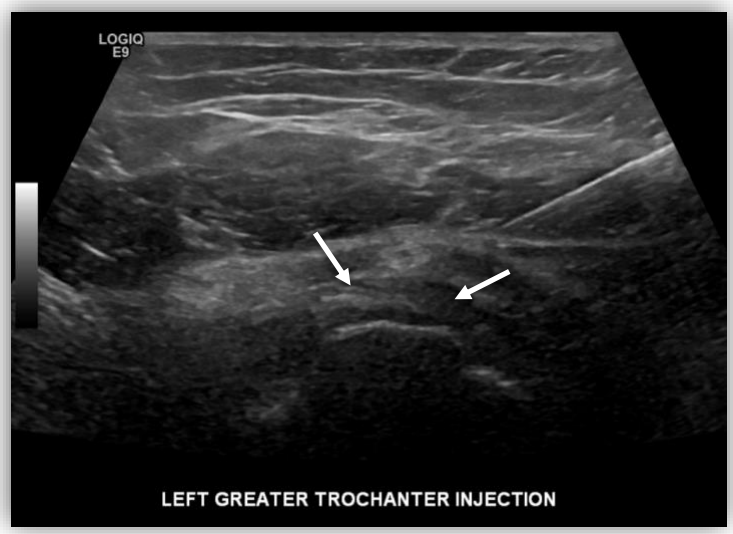

Fig 4. Short-axis US image post-injection demonstrating corticosteroid injectate distending the trochanteric bursa.

Department of Radiology
Musculoskeletal Imaging and Intervention
University of Wisconsin School of Medicine and Public Health Clinical Science Center 600 Highland Ave Madison, Wisconsin 53792-3252
608/263-9387 Fax: 608/263-5112 https://radiology.wisc.edu/sections/musculoskeletal-imaging-and-intervention/

Fig 5. Short-axis US image demonstrating partial needle placement within the trochanteric bursa.

Fig 6. Short-axis US image demonstrating appropriate needle positioning within the trochanteric bursa.

Fig 7. Short-axis US image demonstrating corticosteroid injectate mildly distending the trochanteric bursa.

Fig 8. Short-axis US image post-injection demonstrating corticosteroid injectate distending the trochanteric bursa.

Prepared by: Mitchell Fox, MD – 06/2022