



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

Musculoskeletal Imaging and Intervention Section Procedures
Iliopsoas Corticosteroid Bursa Injection

PREAMBLE

- Inflammation of the iliopsoas bursa may lead to iliopsoas bursitis, of which the main symptom is anterior hip pain +/- snapping of the iliopsoas tendon. Common etiologies of bursitis include overuse (soccer/hockey players), post-traumatic, or an inflammatory/crystalline arthropathy. Other symptoms include groin pain that may be exacerbated by hip flexion.
- Bursitis can also occur following hip arthroplasty, resulting in iliopsoas impingement syndrome. Intra-articular hip pathology can complicate the situation, as the bursa sometimes directly communicates with the hip joint.

RISKS

- Bleeding
- Infection
- Pain

MODALITY

- Ultrasound

PRE-OPERATIVE WORKUP

- Informed consent

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MATERIALS

- Alcohol, ChloroPrep 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)
- 1% preservative-free lidocaine HCL (10 mg/mL)
- 30G 0.5", 22G 1.5" & 22G 3.5" needles

TECHNIQUE

1. The patient is positioned supine with legs extended. To visualize the iliopsoas tendon, the ultrasound transducer is oriented in the transverse plane at the level of the acetabular rim (iliopectineal eminence), somewhat obliquely towards the pubic bone to parallel the inguinal ligament. The iliopsoas bursa sits deep to the muscle and tendon, sometimes extending proximally into the pelvis or distally towards the lesser trochanter.
2. Mark the skin lateral to the transducer. Perform Doppler interrogation to avoid any traversing vessels.
3. Prep and drape as per usual and perform local anesthesia.
4. Guide a 22G 3.5" needle within the bursa. The bursa lies directly between the tendon and underlying iliac fossa. Ideally the needle tip will be placed just lateral and deep to the tendon to reside within the bursa. Distend the bursa slightly with a small volume of 1% lidocaine, which will slightly raise the tendon away from the fossa.
5. Inject 5 mL of a solution containing 2 mL 0.5% ropivacaine, 2 mL 1% preservative-free lidocaine, and 1 mL Kenalog.

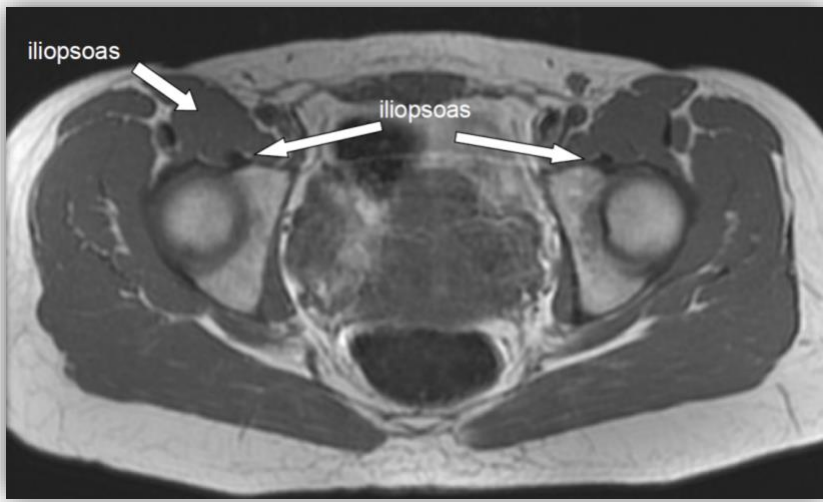


Fig 1. T1-weighted MR image of the pelvis demonstrates the iliopsoas tendons and muscle bellies at the level of the acetabulum.

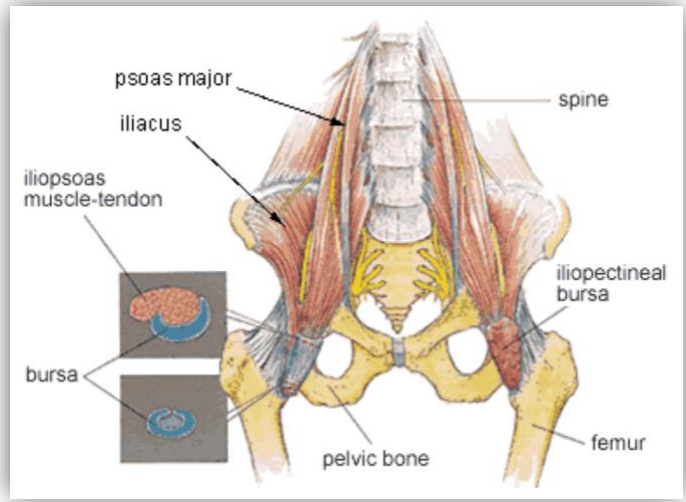


Fig 2. Anatomical diagram depicting the relationship of the iliopsoas tendon and underlying bursa.

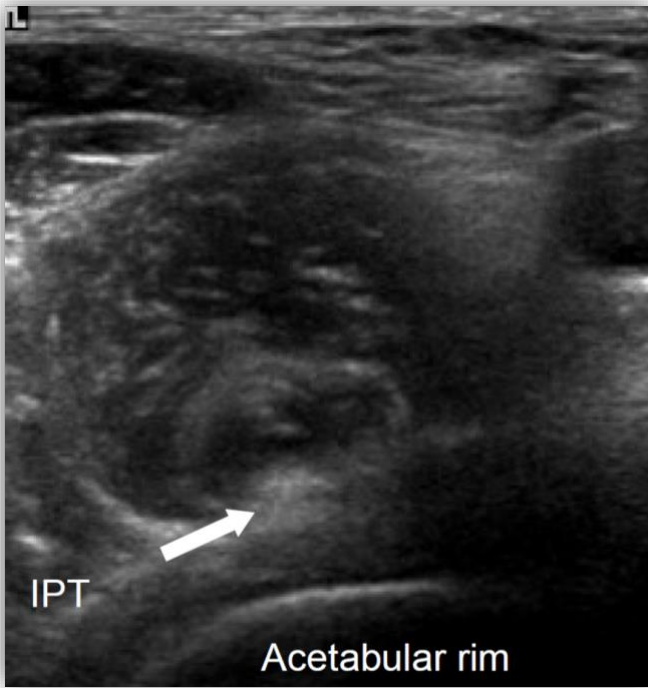


Fig 3. Transverse US image demonstrating the iliopsoas (IPT) tendon at the level of acetabular rim.

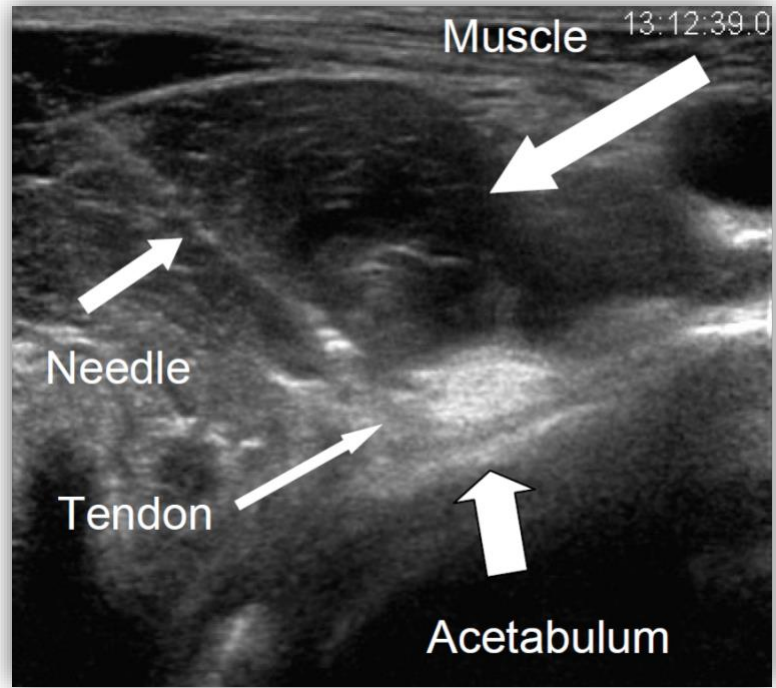


Fig 4. Transverse US demonstrating needle tip placement at the lateral and deep aspect of the iliopsoas tendon.

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Fig 5. Transverse US image demonstrating the iliopsoas tendon at the level of acetabular rim.

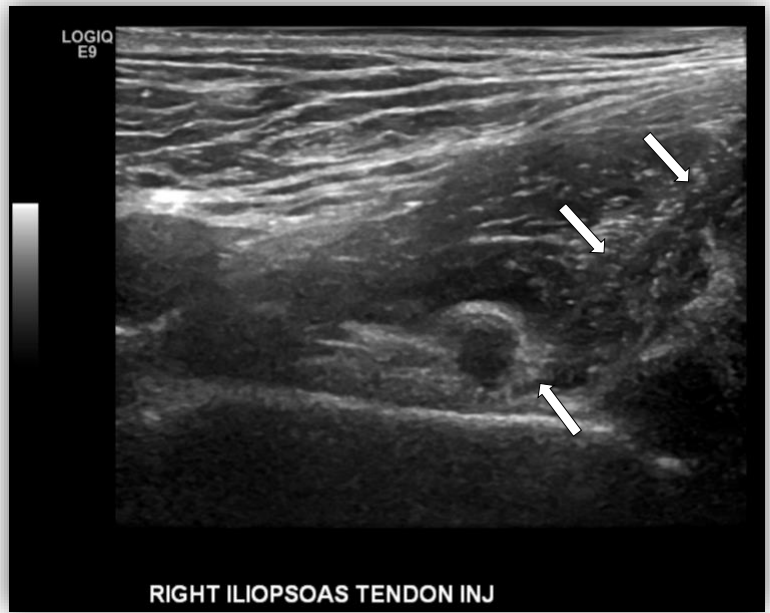


Fig 6. Transverse US image showing appropriate needle tip positioning at the lateral and deep aspect of the iliopsoas tendon.



Fig 7. Transverse US image following injection of corticosteroid mixture, demonstrating uplifting of the tendon from the acetabular rim.

