The occasional injection for trochanteric bursitis

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This article has been peer reviewed.

Often a patient will arrive in the office stating that he or she has a sore hip. Because osteoarthritis of the hip is a common disorder, we may immediately order a radiograph of the hip. Before doing so, we should rule out trochanteric bursitis, which is easily diagnosed by a simple range of motion test and palpation of the hip and is treated in the office without the need for radiography.

HISTORY

Screening questions will usually sort out the location and source of the pain: "Is it sore when you are lying in bed?"; "Is it sore when you lie on that side?"

Trochanteric bursitis occurs about 4 inches lateral to the hip joint and hurts when the patient lies on it. Soreness occurs with climbing ladders or hills, running or using elliptical trainers. In distinction to osteoarthritis of the hip, trochanteric bursitis does not cause much soreness with walking. Also, osteoarthritis of the hip is not generally painful with lying in bed. Confirm with the patient that no pathological flags are present (e.g., history of cancer, night pain, constant pain).

Sometimes there is an obvious precipitant (e.g., the patient went camping with the kids and slept on a rock, was doing a lot of uphill hiking or training, or sleeps on a poor mattress). Often the pain is longstanding and increasingly bothersome. It is more common in women (4:1) and affects between 15% and 20% of the population.[1]

PHYSICAL EXAMINATION

The simplicity of the history is followed by an equally circumscribed examination. It is done with the patient sitting on the examination table. Swing the affected leg side to side (external and internal hip rotation) (Figs. 1 and 2). A painful limitation of internal rotation is an early sign of osteoarthritis of the hip.

Compare the range of movement with that of the other leg. If reasonable rotation exists, there is no osteoarthritis



Fig. 1. External rotation of the hip is generally normal and painless with bursitis.



Fig. 2. Internal rotation is usually limited and painful in osteoarthritis, but not in bursitis.

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of the hip and no need for radiography.

Steady the patient with the other hand and press firmly with your thumb over the area of the trochanteric bursa. If the pain is recreated, you have the diagnosis and can offer the patient a simple, relatively painless injection (Fig. 3).

ANATOMY

Unlike the more commonly injected bursae of the shoulder and the knee, the trochanteric bursa is often not a discrete structure. This causes some authors to refer to pain in this area as "greater trochanteric pain syndrome," a reference to the 5 or 6 bursae in that region.[2] Whereas some of these bursae are not universally present in autopsy studies, 2 commonly are (deep and superficial subgluteus maximus bursae) and are thought to be the location of the clinical pain[3,4] (Fig. 4).



Fig. 3. Firm palpation over the greater trochanter reproduces the pain of bursitis. This is your confirmatory test.

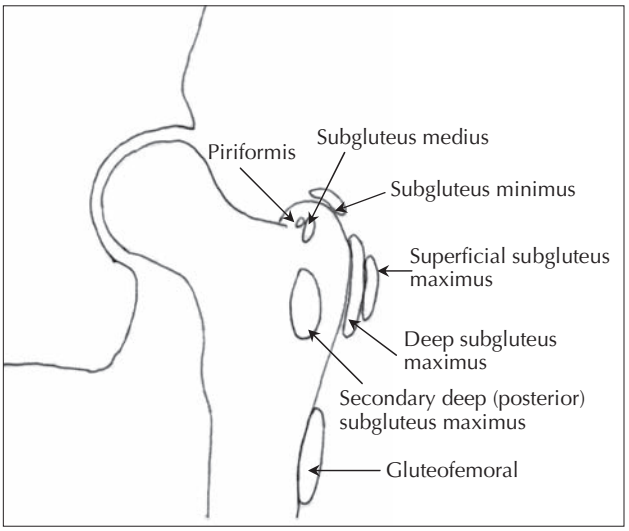


Fig. 4. The multiple bursae involved in trochanteric bursitis.

The trochanteric bursa decreases the friction around the insertion of the iliotibial band and hip abductor muscles into the greater trochanter. Repeated hip flexion (e.g., from climbing hills) and direct pressure (e.g., from lying on a poor mattress) lead to inflammation and pain in this area. Because the trochanteric bursa lacks a discrete anatomic structure, we use a large volume of steroid–lidocaine mixture spread over a larger area.

TREATMENT

1. Have the patient lie on his or her good side with a patch of skin exposed over the hip region (the patient need not completely undress).
2. Palpate with the palm of your hand to find the top of the "bony dome," which is the greater trochanter of the femur (Fig. 5).
3. Localize the painful area with a finger press. When the affected area is found, the patient will easily let you know (Fig. 6).
4. You are looking for a tender area of soft tissue.



Fig. 5. With the patient lying on his or her good side, palpate the dome of the hip to find the highest point.



Fig. 6. Locate the highest point with a finger press. Move your finger around until you find the most tender spot.

Mark the most tender spot with the needle protector to give you a bull's eye for your injection.

5. Alcohol swab the skin. Use a 25-gauge, 1.5-inch needle to inject 5–10 mL of 1% lidocaine without epinephrine and 40 mg of methylprednisolone acetate or equivalent. The objective is to pepper an area about the size of a golf ball or larger.
6. Dive deeply with the needle. Inject 1–2 mL, bring the needle back to near the skin and redive into the adjacent tissue (Fig. 7). Do this 2–3 times and you are done. If the needle comes out when you are repositioning it, no problem. If you hit bone, simply inject as you slowly back the needle out.

A review of trochanteric bursitis studies using cortisone injections documents 60%–100% efficacy.[2]



Fig. 7. Bury the needle at the most tender spot and deposit part of the mixture at or near the bone. Bring the needle back to the skin and reinject at a slightly different angle, trying to eventually infiltrate an area the size of a tennis ball.

AFTER CARE

Bandage. There is little else to do. Another injection can be done in a month if some of the pain remains. One injection may suffice, but sometimes 2 or 3 will be required. If the patient needs to replace his or her mattress, now is a good time. If the patient can avoid ladder and hill climbing for awhile, all the better.

CONCLUSION

This is a simple manoeuvre that will usually resolve the pain, which may have been longstanding if the patient believed he or she was simply getting old and had a worn-out hip. The injection is almost painless, and patients derive excellent symptom relief from this simple office procedure. There are a group of patients who will return after 1–2 years or sooner, and they are candidates for repeat injection. Trochanteric bursitis is common and is easily diagnosed and treated.

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