Groin Pain in a Middle-Aged Man With Diabetes

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During a routine diabetes follow-up visit, a 55-year-old man complains of increasing pain in his right groin and hip. He is also being treated for hypertension, and his body mass index is 28.

The patient has experienced mild hip discomfort intermittently for the past 3 years, but the groin pain is recent. In addition, the hip pain no longer responds adequately to heat and ibuprofen and now radiates down the lateral aspect of his leg. He has a right-sided limp. He has also noted some periodic back pain that responds to ibuprofen, and for the past 3 weeks he has had burning pain at night in his left lower leg. Because his job requires him to be on his feet most of the day, he is concerned about his ability to continue working.

WHICH IS THE LEAST LIKELY CAUSE OF HIS GROIN AND HIP PAIN?

A. Avascular necrosis of the hip.
B. Osteoarthritis (OA) of the hip.
C. Slipped capital epiphysis.
D. Diabetic neuropathy.

THE CONSULTANT'S CHOICE
Groin pain in the absence of trauma almost always indicates hip pathology. Slipped capital epiphysis (C) is seen in adolescents with an open epiphysis who have undergone a recent growth spurt. The patient's age rules out this diagnosis.

Hip OA (B) is the most likely diagnosis, given this man's age and history. OA is the most common cause of musculoskeletal complaints in older patients. The pain is usually vague and non-disabling initially; it gradually becomes more disabling. More than one weight-bearing joint is typically involved; thus, knee, back, neck, and hip discomfort are commonly seen together.

Avascular necrosis of the hip (A) is relatively rare; however, it is a potentially devastating problem
that must be ruled out to prevent further damage from continued ambulation. Most cases are associated with excessive alcohol intake or recent use of corticosteroids. The burning pain in the patient's left lower leg could be caused by diabetic neuropathy (D), but diabetic neuropathy is not a likely cause of his groin and hip pain.

Examination of the patient's right hip reveals discomfort and decreased range of motion with internal and external rotation. Internal rotation (Figure 1) is limited to 10 degrees, compared with 25 degrees on the left side. External rotation (Figure 2) is 30 degrees, compared with 50 degrees on the left. No other restriction of hip joint motion is noted. Abduction and adduction of the hip elicit pain over his right greater trochanter; in addition, the right greater trochanter is tender to palpation. Results of the remainder of the examination are normal.

**WHICH IS THE MOST LIKELY CAUSE OF THE TENDERNESS OVER THE GREATER TROCHANTER?**

A. Meralgia paresthetica.
B. Trochanteric bursitis.
C. Iliotibial band syndrome.
D. Stress fracture of the femur.

**THE CONSULTANT'S CHOICE**
The most likely cause is trochanteric bursitis (B). This entity is often associated with osteoarthritis and is typically characterized by point tenderness over the greater trochanter and pain with abduction and adduction of the hip.

Meralgia paresthetica (A), caused by compression of the lateral femoral cutaneous nerve, produces burning pain and numbness over the lateral and anterior thigh. Because meralgia paresthetica is aggravated by bending backward rather than by abduction and adduction, this entity is not likely in this patient.

Iliotibial band syndrome (C) is associated with pain in the outer lateral portion of the knee; however, our patient does not complain of any knee pain. Stress fractures (D) are usually associated with overuse, such as occurs with running regimens; this man has no history of excessive athletic activity.

**WHICH STUDY WOULD BE MOST HELPFUL AT THIS POINT?**

A. MRI scan of the right hip.
B. Rheumatoid factor measurement.
C. Plain radiographs of the right hip.
D. CT scan of the right hip.

**THE CONSULTANT'S CHOICE**
The most likely diagnosis is OA of the right hip. Plain radiographs of the right hip (C) will help confirm the diagnosis.

MRI and CT scans (A and D) are expensive and are not indicated unless plain films suggest another diagnosis. Measurement of rheumatoid factor (B) is not indicated because rheumatoid arthritis does not usually involve weight-bearing joints, such as the hip. If smaller joints, such as those in the hands and wrists, were symmetrically involved, then a measurement of rheumatoid factor would be advisable.

Plain radiographs in OA can reveal joint-space narrowing, osteophytes, sclerosis, and cyst formation. This patient's films revealed loss of joint space and early osteophyte formation. The radiographic findings— together with the absence of a history of excessive alcohol intake or corticosteroid use— also rule out avascular necrosis. Radiographic changes of OA are common with aging and are thus meaningless unless the patient has symptoms. The diagnosis and assessment of severity are made based on the clinical picture rather than the radiographic findings.

**WHICH TREATMENT IS LEAST LIKELY TO BE USEFUL IN THIS PATIENT?**

A. Cyclooxygenase (COX)-2 inhibitors.
B. Exercises to stretch and strengthen the hip muscles.
C. Acetaminophen.
D. NSAIDs.

**THE CONSULTANT'S CHOICE**
The first-line treatment for OA of the hip is stretching and strengthening all of the hip muscles (B). To enhance a patient's confidence in his or her ability to perform the exercises correctly, provide a handout with illustrations that show how to do the exercises (see Patient Education Guide, page 211) or demonstrate the exercises yourself, then observe the patient performing them. Referral to a physical therapist is helpful if instruction in more extensive exercise therapy or the use of other modalities, such as ultrasonography, is warranted.
Make sure that the patient clearly understands the importance of stretching and strengthening exercises before you discuss oral medications. Acetaminophen (C) is highly effective if used at a dosage of 4000 mg/d for a minimum of 10 days. Patients may not appreciate the need to take acetaminophen continuously; most think that the medication is only for pain and do not take it when they are pain-free. Taking a little extra time to help them understand the rationale for continuous dosing can improve adherence and thus effectiveness.

NSAIDs (D) can be used as an adjunct to the exercises and acetaminophen but not as a first-line therapy. Use both COX-1 and COX-2 inhibitors (A) with caution in patients with diabetes (such as this man) because of the increased risk of cardiovascular disease associated with diabetes. If you feel treatment with one of these agents is warranted in a patient with diabetes, use the lowest possible dose for the shortest possible period. COX-1 or COX-2 inhibitors may be appropriate for patients in whom the risk of cardiovascular disease is not elevated.

Outcome of this case. The patient was taught to stretch and strengthen his hip musculature. A regimen of acetaminophen, 4000 mg/d for 10 days, was prescribed. He did well and is being monitored closely.

References:
FOR MORE INFORMATION:

- Shahady EJ. *Primary Care of Musculoskeletal Problems in the Outpatient Setting*. New York: Springer-Verlag; 2006.


Links:
[1] [http://www.psychiatritimes.com/authors/edward-j-shahady-md](http://www.psychiatritimes.com/authors/edward-j-shahady-md)