Dynamic Chiropractic

MUSCULOSKELETAL PAIN

Trochanteric Bursitis

Mark A. King, DC

Patients present to our offices with a variety of low back, gluteal, hip and lower extremity complaints. One condition that sometimes is overlooked is trochanteric bursitis. It is rare for the trochanteric bursa to spontaneously become inflamed and irritated. Postural stress and/or abnormal biomechanics routinely precede this.

For example, a leg-length inequality, either structural or functional, can irritate the bursa by changing the lines of stress. Another example that might predispose to this condition is a pronated foot. With a pronated foot, the tibia follows with excessive internal rotation. The femur follows suit, changing the attachment site for the iliopsoas muscle. This creates an anteriorly tilted pelvis and subsequent altered stress on the bursa. A simple analogy is the development of a blister from shoes that do not wear properly. There is an optimal loading pattern for tissues. Too much or too little force alters this loading pattern, and is destructive to the tissue involved.[1] This change in the loading pattern leads to a lesion and/or degeneration.

Altered sacroiliac or iliofemoral movement patterns, excessive compression from the glutes, and weakness of the glutes are further examples of predisposing factors for trochanteric bursitis. The differential diagnosis is important here, so that specific corrective care can be administered. A few examples include spinal stenosis vs. lumbar radiculopathy vs. iliofemoral DJD vs. iliofemoral avascular necrosis vs. sacroiliac joint dysfunction vs. piriformis syndrome vs. gluteus myofasciitis and/or trigger points.

Here are just a few things to look for to help differentially diagnose these conditions. With trochanteric bursitis, the patient is often tender posterior and superior to the greater trochanter, and tends to have pain extending down the anterior thigh and knee. This pain is worse in bed. Orthopedic and functional testing tend to produce equivocal findings.[2]

With spinal stenosis, the patient's pain is worse with standing and especially with walking. MRI usually delineates stenosis very well. Spinal stenosis becomes more common as people age, secondary to degenerative changes.

A lumbar radiculopathy may have neurologic deficit and a positive SLR test, and if it is a lower lumbar radiculopathy, the pain is more posterior in the leg compared to lateral and anterior, as with trochanteric bursitis or with a high lumbar radiculopathy. MRI is typically helpful with a lumbar radiculopathy. An electrodiagnostic evaluation also can be helpful.

With iliofemoral DJD, the patient typically loses internal rotation of the hip first and internal rotation is painful. Plain-film X-ray also will aid in this diagnosis.

Avascular necrosis (AVN) of the hip can be difficult to diagnose in the early stages. Specifically on X-ray, the four key findings around the joint include mixed sclerosis, lucency, fragmentation and collapse.[3] Further, with AVN the patient may have a history of steroid use, trauma, alcohol abuse, or an insidious onset. Poor response to your conservative care is always a red flag, especially with

AVN. These patients need to be referred out to a specialist.

Sacroiliac joint dysfunction can be palpated or evaluated with a series of sacroiliac joint tests.[4] Tenderness typically is found more medial in the glutes along the sacroiliac joint than with trochanteric bursitis. The patients often speak of pain transitioning from being seated to standing.

With piriformis syndrome, the tenderness is typically deep in the piriformis muscle. Pain is worse with sitting. The glutes often are inhibited on that side, and the patient will demonstrate an abnormal squat test.

With gluteus myofasciitis, the pain and tenderness are diffuse. With trigger points in the glutes, the patient will have a specific pain referral pattern when the trigger point is palpated.

These are just a few ideas to consider with your low back and lower extremity patients. Keep developing your skills, helping your patients, and building your practice.

References

1. Porterfield and DeRosa. *Mechanical Low Back Pain*. WB Saunders, Philadelphia, 1991: p. 13, figures 1-7.
2. Hammer W. *Functional Soft Tissue Examination and Treatment by Manual Methods*, 2nd edition. Aspen Publishing, Maryland, 1999: p. 253.
3. Rich J. Class notes/seminar, November 2005, Cincinnati, Ohio.
4. Erhard RE, Delitto A. Relative effectiveness of an extension program and a combined program of manipulation and flexion and extension exercises in patients with acute low back syndrome. *Physical Therapy* 1994;74:1093-1100.

Mark A. King, DC
Cincinnati, Ohio

About the Author: Dr. Mark A. King is a regular contributor to *Dynamic Chiropractic*. He has been president of the Motion Palpation Institute since 2001, and has lectured throughout the United States and around the world for MPI since 1994. A 1986 graduate of Life Chiropractic College, Dr. King is a member of the postgraduate faculty at National University of Health Sciences and Northwestern Health Sciences University.

JANUARY 2006