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What is Piriformis Syndrome?

The piriformis muscle is flat and pyramid-shaped, lying deep in the buttock region. This muscle originates from the front part of the sacrum (triangular shaped bone that sits in the middle of the pelvis) and inserts at the greater trochanter (top of the thigh bone, can be felt at the side of the hip). In the majority of the population, the sciatic nerve passes underneath the piriformis muscle and in 15% of the population the sciatic nerve actually passes through the piriformis.

Piriformis syndrome is a nerve and muscle disorder that occurs when the sciatic nerve is compressed or irritated by the piriformis muscle. This can cause pain, numbness, and tingling in the buttocks and along the course of the sciatic nerve. Piriformis syndrome can often mimic the signs and symptoms of a herniated disc of the lower lumbar spine (sciatica) and is often referred to as "pseudosciatica."

Approximately 50% of the cases of piriformis syndrome are due to history of trauma, with either a direct blow to the buttock region or twisting injury to the hip/lower back. The remaining 50% of cases are of spontaneous onset; the treating physician must have a high index of suspicion for this problem. Piriformis syndrome is also known as "wallet sciatica" or "fat wallet syndrome," as the condition can be caused or aggravated by sitting with a large wallet in the rear pocket.

Piriformis syndrome is diagnosed primarily on the basis of radiating pain in the posterior thigh and lower leg and tenderness over the region of the piriformis muscles. At times it is a difficult diagnosis to make because it relies on the history and physical examination. It is a diagnosis of exclusion because there are no tests that accurately confirm the diagnosis. X-rays, MRI, and nerve conduction tests may be necessary to exclude other diseases. Some of the other causes of sciatica include disease in the lumbar herniated disc, chronic hamstring tendinitis, and scar tissue formation of other muscles around the sciatic nerve.

Treatment usually begins with physical therapy, including the teaching of stretching techniques, massage, and strengthening of the core muscles (abs, back, etc.) to reduce strain on the piriformis muscle. Patients with piriformis syndrome may also find some pain relief from ice and heat. Ice can be helpful right when the pain starts, or immediately after an activity that usually causes pain (e.g., going up stairs). A heating pad may be alternated with the ice for relief from the pain. Custom foot orthotics also help with the treatment and prevention. By correcting a person's gait, the use of the piriformis muscle is greatly reduced allowing the muscle to relax and heal itself

Anti-inflammatory drugs (such as ibuprofen or naproxen) can be used. For those patients that don't respond to physical therapy and pain medication, injections under x-ray guidance with cortisone or botulism toxin type B can be used in an attempt to relax piriformis muscle spasm. Occasionally surgery may be recommended. The prognosis with treatment is generally good.

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