Pyriformis Syndrome Frequently Overdiagnosed

What's often labeled pyriformis syndrome is more likely proximal radicular pain or referred pain.

BY BRUCE JANCIN
Denver Bureau

SNOWMASS, COLO. — Pyriformis syndrome as a cause of low back pain is greatly overdiagnosed, Dr. Zacharia Isaac asserted at a symposium sponsored by the American College of Rheumatology.

"First of all, true pyriformis syndrome involves an entrapment of the sciatic nerve as it goes through the pyriformis muscle. And that's rare anatomically. Only 7% of people actually have their sciatic nerve going through the pyriformis as opposed to running next to it. So only 7% of the population should even be potentially subject to pyriformis syndrome," said Dr. Isaac, who is the medical director of the comprehensive spine care center at Brigham and Women's Hospital, Boston.

Pyriformis syndrome is often the diagnostic label applied in patients with pain limited to the gluteal region. But as an entrapment neuropathy, real pyriformis syndrome should produce radicular-sounding symptoms into the thigh and calf as well as the buttock. Typically there is painful flexion, adduction, and internal rotation. Palpation over the sacral notch and gluteal region can often produce the buttock and leg pain.

What's often labeled pyriformis syndrome is much more commonly undiagnosed proximal radicular pain or referred pain from an arthritic facet joint or disk, according to Dr. Isaac.

"If it's just gluteal pain then it's just that: that pain in the butt where you don't know if it's coming from the back through a referral mechanism or it's the proximal extent of radicular pain. The buttock is a nebulous area," he explained.

"Probably the most common scenario is the patient has had a herniated disk earlier on. It injured the nerve root, the nerve root is now chronically injured, the herniation has resorbed, and now you still have sciatic symptoms down the leg," the physician continued.

Audience members asked Dr. Isaac what he thinks of the practice of some orthopedists who believe prolonged spasm of the pyriformis muscle is a common cause of pyriformis syndrome. They'll do a diagnostic injection of local anesthetic into the muscle and often follow up with botulinum toxin type A.

"Botox in the pyriformis is a step too far, in my mind," Dr. Isaac replied. "I think weakening and deadening a muscle or going in surgically to release the pyriformis muscle doesn't make much sense for this sort of debatable diagnosis. But a local anesthetic block to enable you to say, 'Yes, this is pyriformis syndrome,' and then give some stretching exercises for the pyriformis—that makes sense."

'If it's just gluteal pain then it's just that: that pain in the butt where you don't know [where] it's coming from. ... The buttock is a nebulous area.'

On rare occasions he will obtain a magnetic resonance image of the pelvis in highly refractory patients who don't seem to have a lot of psychologic overlay. The chief purpose is to learn if the sciatic nerve actually pierces the pyriformis and edema is present in the muscle.

"The additional reassuring part of getting the study is now I know there is no soft tissue sarcoma or intra-abdominal pathology pressing on the sacral plexus. So for those reasons I find an MRI useful, but if you got it in everybody complaining of neuropathic pain with no clear abnormality in their lumbar spine you'd be spending a lot of money for nothing," said Dr. Isaac.

Dr. David Borenstein of George Washington University, Washington, commented that rheumatologists see another category of patients who have what they consider pyriformis syndrome, but of a reversible kind.

"We do see some people with spondyloarthropathy who have pseudosciatica which causes pyriformis irritation. You treat their disease and the radiculopathy goes away. And they really don't have any disk disease," he explained. ■

Maneuvers, Not Imaging, Can Help Confirm Sacroiliac Joint Syndrome

BY BRUCE JANCIN
Denver Bureau

SNOWMASS, COLO. —Reserve an anesthetic block to diagnose sacroiliac joint syndrome for those patients having at least three positive pain-provoking tests on physical examination, Dr. Zacharia Isaac urged at a symposium sponsored by the American College of Rheumatology.

"At least three separate studies show that if a patient has two or fewer positive provocative exam maneuvers, the likelihood that their gluteal pain is due to sacroiliac joint syndrome is very low. You can avoid a lot of needless diagnostic injections of the SI joint if you examine the patient using a cohort of provocative exam maneuvers," according to Dr. Isaac, medical director of the comprehensive spine care center at Brigham and Women's Hospital, Boston.

One can avoid unnecessary diagnostic injections of the SI joint by using a cohort of exam maneuvers.

DR. ISAAC

Sacroiliac joint syndrome (SIJS) probably accounts for about 15% of cases of low back pain, making it the third most common cause after discogenic pain and facet syndrome. These more common conditions must be considered first and rejected as likely explanations for the patient's pain before moving on to SIJS.

"The SI joint syndrome truly is a dysfunction syndrome because there really is no imaging test that's going to show you that the SI joint is the pain generator. A SPECT [single photon emission computed tomography] scan will not show you a hot SI joint. There will not be a lot of arthritis involving this joint. There will not be a bone scan or any other imaging that will confirm the diagnosis for you. You will not find erosions on MRI. This is not sacroiliitis in any way," the physical and rehabilitation medicine specialist stressed.

SIJS is characterized by low back and buttock pain that can refer to the groin and thigh. Hip findings are unimpressive. If symptoms are present above the level of the L5 transverse process, it's unlikely the SI joint is the cause.

The syndrome often arises post trauma or intra- or post partum.

Among the pain-provocative maneuvers useful in identifying suitable candidates for the preferred method diagnostic anesthetic block are Patrick's test, in which the heel of one leg is crossed atop the opposite knee and the top knee is pressed down in an attempt to elicit pain in the sacroiliac area.

Another is Gaenslen's test: While the supine patient holds one knee and hip flexed into the abdomen, the other leg hangs over the edge of the examining table as the physician presses down on it to hyperextend the hip and produce pain in the SI joint.

Precise reproduction of the pain upon palpation of a particular spot over the sacral sulcus is another useful indicator of SIJS. Other provocative exam maneuvers include standing extension, SI joint compression, and the joint distraction test. Dr. Isaac emphasized that the diagnostic intra-articular injection of local anesthetic into the SI joint must be performed under fluoroscopic guidance. A positive test is one that results in relief of the familiar pain.

Treatment options in SIJS are limited to intra-articular corticosteroid injections and physical therapy. Radiofrequency lesioning of the innervation of the SI joint has shown promise in observational case series and is now being looked at in more formal studies, he said. ■

Risk Factors Are Identified For Ovarian Failure in SLE

BY MITCHEL L. ZOLER
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Higher disease activity, treatment with cyclophosphamide, an older age, and a certain ethnic background were each linked with a significantly increased risk for developing premature gonadal failure in a study of 316 women with systemic lupus erythematosus.

Disease activity and Texan-Hispanic ethnicity had not previously been reported to boost the risk for premature gonadal failure (PGF) in younger women with systemic lupus erythematosus (SLE), reported Dr. Luis A. González of the division of immunology and rheumatology at the University of Alabama, Birmingham, and his associates.

The findings also confirmed the previously reported findings that cyclophosphamide treatment and older age were linked with PGF in women with SLE (Ann. Rheum. Dis. 2008 Feb. 13 [doi: 10.1136/ard.2007.083576]).

Alternatives to cyclophosphamide treatment are needed for treating young women with SLE, asserted Dr. González and his associates.

They used data collected in the Lupus in Minorities: Nature vs. Nurture (LUMINA) study, a longitudinal outcomes study that included SLE patients aged 16 or older who were diagnosed with SLE for 5 years or less. From this group, they focused on women younger than 40 years of age who were not postmenopausal when they entered the study.

This yielded a study group of 316 women, with an average age of about 29 years. Their average duration of SLE at enrollment was 1 year. The group included women from four racial and ethnic groups: Texan-Hispanics, Puerto Rican-Hispanics, African Americans, and whites.

During follow-up, 37 women (12%) developed PGF. The total group of 316 women included 76 who were treated with cyclophosphamide, of whom 33% developed PGF.

A multivariable analysis identified four factors that were each linked with a statistically significant, increased risk of developing PGF during follow-up: older age, Texan-Hispanic ethnicity, treatment with cyclophosphamide, and greater SLE severity that was quantified with the revised systemic lupus activity measure.

Women categorized as Texan-Hispanic were about four- to five-fold more likely to develop PGF, compared with white women. Women with more severe SLE were about 20% more likely to develop PGF, compared with those with less severe disease. ■