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Editorial

Occupational Sciatica

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The pain began in my right hip like a muscle ache after strenuous golf or tennis. This time, however, I could not relate the discomfort to any athletic activity and was frustrated that it was not resolving. As an interventional cardiologist, I knew of the occupational health hazards and resultant predisposition to orthopedic injuries of craning my neck toward monitors when wearing a heavy lead apron [1]. After working for more than 25 years in the laboratory, I recently learned that I was not immune to these problems. Fortunately, I was treated without the need for spinal injections or surgery using a method of diagnosing and treating low back pain which, like many breakthroughs in medicine, was discovered serendipitously.

Initially, I went to sports trainers and a masseuse for relief. Although I felt better briefly, the pain would soon return. One day the masseuse suggested, in her thick Austrian accent, "I think you need to try pilates!"

I had always been interested in staying fit, so I was anxious to try it. Using various apparatus and floor mats, pilates was great for flexibility and abdominal core strength, but once again the pain would return in a day or so. Between sessions, I would reach forward past my toes to stretch what I thought were tight muscles; however, the discomfort continued. Over time, the pain started to travel down my outer right thigh. In retrospect, extreme hip flexion may have made the symptoms worse. Driving my cramped sports car with its rough ride and constant gear shifting aggravated the aching, while sitting on long airplane flights, provoked misery for days. They say doctors make the worst patients and do not take care of themselves. Once I realized I was starting to favor my right leg, I knew this was not just a simple muscle strain.

I consulted my friend Tom, a specialist in physical medicine and sports medicine, and he determined I had tightness on right hip flexion. "I suspect you have some disk disease in your lower back," he said, "let's order an MRI of your lower spine to see what is going on."

Knowing that colleagues had surgery with poor results and eventually retired due to disc disease, worry began to creep in. The risk of surgery and the inherent danger of permanent nerve damage also lurked in the back of my mind.

I was so concerned after the MRI I went to look at the images with one of the radiologists instead of waiting for the report. Although not an expert in MRIs, my worst fears were there before my eyes. I could see a disc bulging to the right and posterior in the lumbar portion of my spine.

"I want you to see Mary in physical therapy for spine mobilization and a specialized exercise program," Tom said after we discussed the MRI on the phone. Concerned that my leg would get worse, I scheduled an appointment immediately.

After some initial range of motion testing, Mary found that I had reduced hip extension and limited ability to bend backward to a full range. She explained further, "Now we're going to use a series of repeated movements to determine which exercises are effective in reducing your pain. This method of mechanical diagnosis and treatment was developed back in the 1950s by Robin McKenzie a physiotherapist from New Zealand."

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As I learned later, McKenzie had discovered this method of treating low back pain through a chance discovery when he asked a patient with lower back and leg pain to lie face down on a treatment table that, inadvertently, still had the head of the bed partially elevated from a prior patient. When McKenzie entered the room, he was surprised to find the patient lying in what had previously been considered a damaging position, and was astonished to hear that the patient's pain had disappeared while in this unorthodox hyperextended position. After trying various extension maneuvers and having success with other patients, McKenzie postulated that these techniques may be both diagnostic and therapeutic, and a whole new method of assessing and treating low back pain evolved.

While showing me a model of the spine, Mary clarified, "In simple terms, your spine is a series of blocks stacked up one on top of the other. In your spine, the disc between the blocks is bulging backwards and to the right. This causes an irritation to your nerve roots and pain which is referred to your right hip and travels down your right leg. End range extension exercises, backwards or side gliding to the right, could help get the disc back into proper position and relieve the pain."

After a few treatments and home exercises doing 10–15 push ups while keeping my hips on the floor, I was in awe. Almost immediately, the pain traveling down my right leg melted away, and the discomfort in the right hip gradually subsided over the next few weeks. Once the pain was gone, it might return after a long day in the catheterization laboratory or strenuous physical activity; however, hyperextension exercises would allow me to sleep at night.

"Mary, this is remarkable! The pain no longer radiates down my leg, and my hip discomfort only flares up occasionally. When it does recur, a few exercises at home or on the office carpet relieves the discomfort almost immediately," I said during my last visit. "We need to tell other cardiologists, radiologists, and surgeons about this McKenzie Method. Maybe these simple exercises 10–15 min a day will help others avoid occupational sciatica."

"Well, as a matter of fact," she answered, "there's an international organization of trained professionals who can diagnose and treat spine problems from the neck to the lower back at www.mckenziemdt.org. Your colleagues should check it out."

"After what I learned and the relief I've felt, I'll certainly spread the word."

REFERENCE

1. Klein LW, Miller DL, Balter S, et al. Occupational health hazards in the interventional laboratory: Time for a safer environment. Cathet Cardiovasc Interv 2009;73:432–438.

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