Advancements in pain therapy: A comprehensive approach

by Carolyn A. Berry, APR

Life shouldn't be a pain. When it is, a Norfolk and Virginia Beach-based group of physicians is ready to help. "Because pain is experienced differently by everyone and the musculoskeletal system is so complex, pain is often hard to diagnose and treat," says Lisa B. Barr, M.D., founder of Advanced Pain Management & Rehabilitation P.C. "When patients come to our practice, our physicians take a thorough history and evaluate them using several different models simultaneously because there may be multiple causes of the pain — some that may not be overtly obvious."

The doctors look at chronic pain as if it were an onion. "As we peel the layers, the onion takes on other shapes. It looks different. So does pain," Barr says. "Rarely is there only one source of pain. Therefore we have to keep peeling the onion until we find the actual pain generators. Then we can treat them."

Pain is on the rise

Research indicates that nine million people in the United States today are unable to work, study or live independently because of chronic pain and disabling conditions. A recent study says that the average person in America today can expect to spend nearly 13 out of 75 years with some sort of activity limitation. "Our focus of treatment reduces our patients' levels of pain and maximizes their functional abilities," Barr says. And when the pain isn't treatable, the doctors help their patients learn how to live with it.

APM&R, formerly known as Rehabilitation Medicine Consultants P.C., is a multi-physician group of physiatrists, pain management specialists and physical therapists who provide comprehensive and diagnostic non-surgical treatments for patients with neurologic, orthopedic and musculoskeletal pain, sports-related injuries and disabilities. "We are creative and we're not afraid to tackle difficult problems," Barr says. "We use a holistic approach and look at both the physical and the emotional because the mind-body connection is complex."

Physiatry is a little known specialty

Physical medicine and rehabilitation — physiatry — began as a medical subspecialty in the 1930s to meet the needs of patients with musculoskeletal and neurological problems. It broadened its scope after World War II when thousands of veterans returned to the United States with serious pain and disabilities. Physiatry is one of the 24 medical specialties certified by the American Board of Medical Specialties and has been since 1947. "Our physicians are board certified or board eligible in physical medicine and rehabilitation, pain management, anesthesiology, internal medicine and/or osteopathy." Barr says. "As a group, we have a very large tool box and the experience to know when to use each tool."

Listening skills are the key to a correct diagnosis

Barr says most physicians are too concerned with the "nuts and bolts" of medicine and not the "art" of medicine. For example, a patient who comes into the office with symptoms that mimic a disc herniation might have an MRI that shows a herniated disc. The pain however, may not be coming from the herniated disc. "We must go beyond the traditional and look at the musculoskeletal system as a complex 3-D puzzle. We must look under the 'onion peel' at the less obvious sources of pain and dysfunction," Barr says.

That is the art of medicine. “Some of the diagnosis is non-tangible and may not be obvious until you take an incredibly good history,” Barr says. And that means listening. “All of us have the ability to listen but some are more adept.”

To uncover a patient’s source of pain, the physicians use physical examinations, traditional diagnostic tools and special techniques in electrodiagnostic medicine, such as EMG, nerve conduction studies and diagnostic spinal injections. “The breadth of our diagnostic expertise allows us to establish a full and accurate treatment program designed for the whole person. We tease out what’s under the onion peel. We find out what’s causing the pain and focus on that,” Barr says. “We are very outcome driven. We don’t want patients in treatment longer than necessary. Unless a patient really needs physical therapy, we teach them exercises — from simple postural exercises to complex muscle re-education techniques — that they can do at home. And most of that we can teach in the office.”

Some patients have multiple problems and need several modalities, including physical therapy, neuraltherapy, prolotherapy, acupuncture and behavioral medicine intervention that teaches better kinesthetic awareness — an important component to long-term success in pain management. “Some patients have lived with so much pain and ignored their bodies for so long that they have lost touch with what’s really happening,” Barr says. To live pain-free, patients must receive accurate signals from their bodies and know how to respond to those signals.

A team approach yields the best results

Recovery from painful or disabling conditions requires a team effort. “Our goal is to work closely with referring physicians and patients to ensure the healthiest outcomes possible — outcomes that reduce pain, restore patients to maximum function and help them learn how to prevent future injuries,” says Thomas Moran, D.O., one of Barr’s associates at APM&R. “Our pain management is a very individualized program,” Moran says. “Once we have determined the source of a patient’s pain, we begin with the least invasive treatment.”

While the physicians and physical therapists manage their roles, patients are active participants and have made commitments to learn what they need to do for themselves. “We look for significant change,” Moran says. “Patients look at function. They want to return to an active lifestyle and golf, dance, camp and play with their children without the limitations pain imposes.”

The technology of pain management includes many tools

The APM&R tool box for pain management includes osteopathic manipulation as well as floroscopical guided epidural steroid injections, facet joint injections, radio frequency denervation of the nerves to facet joints and intradiscal electrothermal coagulation. The goal is to avoid surgery and begin with the least invasive treatment. However, that always is not possible. To ensure favorable surgical outcomes, the doctors work on the theory that “the better you go into surgery, the better you come out” and they shift their focus toward preventing their patients from becoming deconditioned.

Epidural steroid injections

“Epidural steroid injection therapy remains an important treatment modality for our practice,” Moran says. “We give the injections to patients with low-back pain, leg pain and neck and arm pain caused by inflammation or irritation of the nerve roots. Usual causes are arthritic degeneration of the spine or disc herniation.”

The deposit of steroids in the epidural space counter the inflammation and decrease the pain. The established practice of epidural steroid injection therapy is to provide up to three treatments at several week intervals. “We also get the patients more involved by teaching them a variety of exercises and self-treatment strategies,” Moran says. The injections can delay the need for disc surgery or eliminate the need altogether. “Often if a disc herniation is allowed to follow a natural course, the patient will heal spontaneously. Recent statistics show that fewer than 10 percent of patients truly need spine surgery,” Moran says.

Facet joint injections

It is a surprise to many that most back and leg pain is not due to disc herniation and spinal nerve root irritation. Failure to recognize this fact has led to a high rate of unnecessary disc surgery with poor results. “The facet joints often are the source of pain,” Moran says.

Facet joints — paired joints that connect the posterior elements of the vertebral bodies of the spine — permit the vertebral bodies to glide over each other while the back is in motion. As a person ages, arthritic degenerative changes can occur in these joints and refer pain to the hips, thigh and buttock region.

Facet joint injections — injections of long-lasting steroids into the facet joints — are used for patients with low back pain and leg pain stemming from inflammation or irritation of these facet joints. Similarly, cervical facet injections can be performed for patients with neck pain as a result of degeneration of these joints. Studies also have confirmed that chronic post-whiplash pain often is due to cervical facet trauma. It responds very well to facet injections and radio frequency denervation.

“Previously, the only treatment for degeneration of cervical facet joints was fusion,” Moran says. “Facet joint injections may provide relief of pain and inflammation that can last from days to years, or in some cases, permanently. And they can be an important diagnostic tool.” By temporarily abolishing the pain, the patient may participate in physical therapy with attention to muscle strengthening and weight loss to diminish the abnormal forces that accentuate the pain from facet joint arthritis.

Radio frequency denervation

If a patient requires more intense therapy, the physicians perform radio frequency denervation of the nerves to the facet joints. After determining which facet joints are responsible for the pain, the physician denervates the painful facet joints. “We use radio frequency energy — heat — to destroy the small nerves whose sole purpose is to give sensation to these arthritic joints,” Moran says. “Many patients remain pain free from months to years.”

Intradiscal electrothermal coagulation

For most people, lower back pain resolves rather quickly with rest, therapeutic exercise or medication. For some, the pain is a result of a disc degeneration process that is prolonged and severe.

With age, or due to injury, cracks or fissures may develop in the wall of the intervertebral disc. Filled with small nerve endings and blood vessels, these fissures are a chronic source of pain in many patients. The pain usually is felt as a deep, aching pain in the back and sometimes in the buttocks and thigh. Additionally, the inner disc tissue frequently will herniate into these fissures in the outer region of the disc and stimulate pain sensors within the disc. For these patients — the chronic lower back pain sufferers — hope lies with a recently developed procedure called intradiscal electrothermal coagulation.

“IDET is a minimally invasive treatment where we insert a special probe into the disc and once it is in the appropriate position, use heat to shrink the disc,” Moran says. The doctors gradually increase the temperature of the heating section of the catheter and raise the disc wall temperature. The heat contracts and thickens the collagen of the disc wall and reduces the irritability of the small nerve endings that give some sensation to the disc.“IDET works only on the tissues of the disc itself.”

Medicine is a people business

Chronic pain negatively impacts all aspects of an individual’s life, including emotional, vocational, financial and social. The entire family is affected by the chronic pain of any family member. “The challenge to physicians is to figure out the source of a patient’s pain and how to best treat it in a manner that is cost effective and minimally invasive,” Moran says. “Our team of highly trained health care professionals does just that.”

The physicians and staff at Advanced Pain Management & Rehabilitation are dedicated to eliminating or greatly reducing the effects of pain — so life for their patients won’t be a pain *anymore*.

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