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Interventional Pain Management for Back Pain: Targeting Pain at Its Source



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When you hear the phrase “back injury,” what’s your next thought? If you’re like many people, your mind automatically jumps to “back surgery.” While it may be commonly assumed that back surgery is a standard treatment for those who have suffered back injuries, the reality is that a variety of interventional pain management techniques can provide effective, minimally invasive treatments for back injuries and other pain conditions.

The Pathways of Treatment

The goal of interventional pain management is to find the source of a person’s pain, then to treat it in the most effective, least invasive way possible.

“Previously, there was about 10 to 15 percent accuracy in determining what was causing a patient’s spinal pain,” says Scott Glaser, MD, president of Pain Specialists of Greater Chicago, board member of the American Society of Interventional Pain Physicians, and past president of the Illinois Society of Interventional Pain Physicians. “Now, using X-ray-guided treatment, we can diagnose with up to 80 percent accuracy what’s causing the pain.”

Managing back pain using interventional techniques is effective because it’s often difficult to pinpoint the exact physical causes of spine pain. “We know the major causes of pain in the back, and we know the treatments beneficial for treating them—but we don’t always know what is causing pain in a specific person,” says Dr. Glaser. “By following treatment pathways, we’ll treat what we

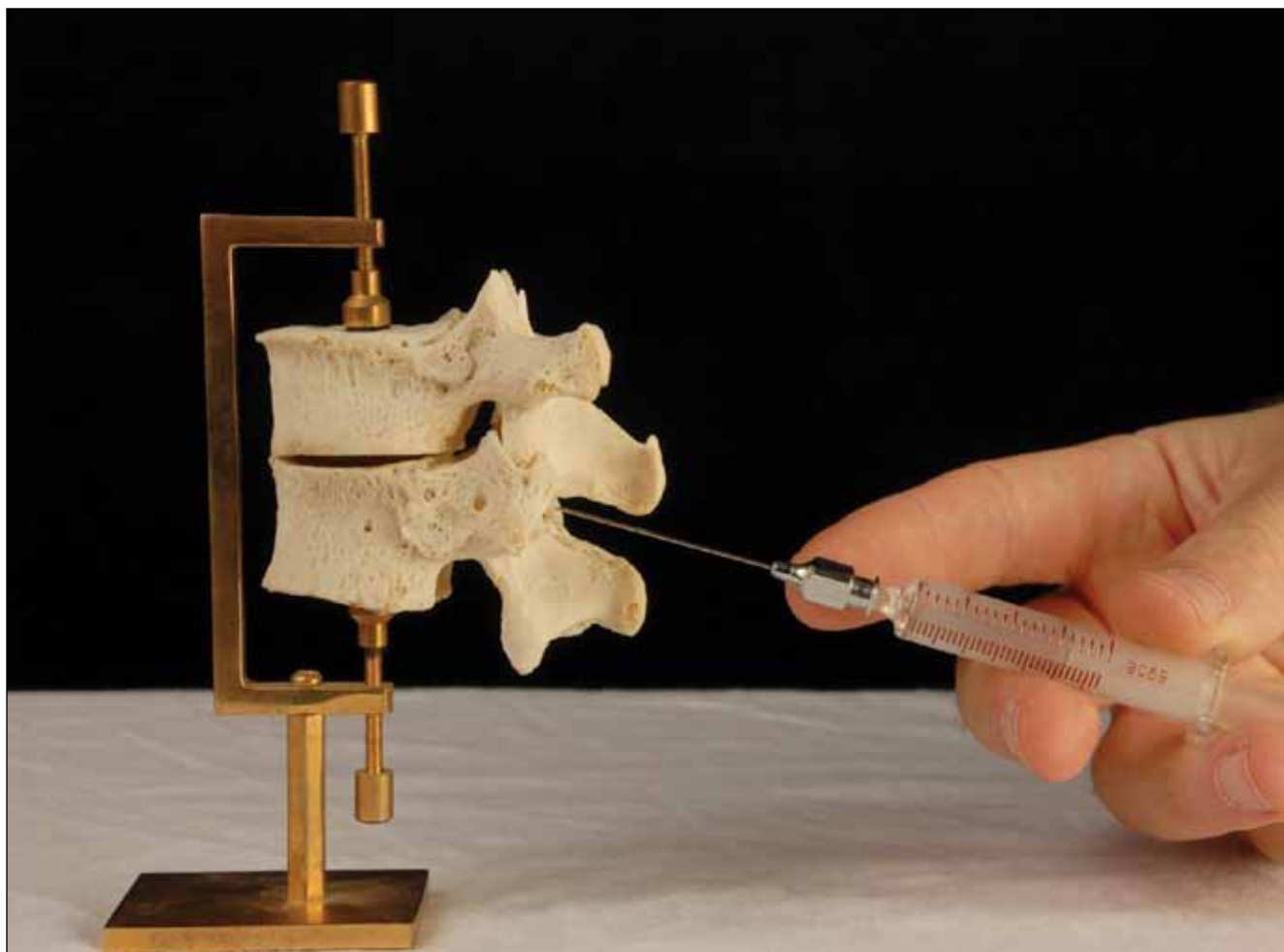
suspect is the cause of pain, and if that doesn’t work, we know what to pursue next. If you do treatments in a pathway like this, you eventually find the cause. Of course, we don’t know until we start.”

Finding the cause of the pain is crucial in thoroughly treating it. Medication can sometimes be effective in pain relief, but it doesn’t address the underlying cause.

“It’s not that you shouldn’t use pain medications,” Dr. Glaser emphasizes. “It’s that medications treat the symptom of pain rather than the source of it. And there are risks with any medication. Interventional pain techniques can provide other effective and safe options.”

A Non-Surgical Approach

As with any medical procedure, there



are risks associated with interventional techniques. Bleeding, infection, drug reactions (such as side effects or allergic reactions) and nerve damage are possibilities when using interventional methods. However, Dr. Glaser says there is relatively little risk involved with interventional pain management because the treatments are minimally invasive. “The treatments we’re talking about are non-surgical,” he says. “The risk-to-benefit ratio of these procedures is fantastic.”

Christine MacCormack, an X-ray technician in Chicago, understands this advantage better than most. Personally, she has experienced the benefits of interventional pain management. Professionally, however, she has observed patients who went in other treatment directions.

“Many of the people I see day to day have had back surgeries,” she says. “It’s unfortunate that many of them didn’t know that other treatments are available. Back surgery is major, and it isn’t reversible.”

It was after giving birth to her first child that MacCormack first started having lower back pain. “I originally went to a chiropractor, and I never got relief from that,” she says. “Then I went to a neurologist, and they told me I needed surgery. Luckily, I work in a hospital and a colleague told me to see a pain management doctor first.

“When I went to see the pain doctor, he gave me a regular epidural steroid injection in my lower back,” MacCormack continues. “My pain went away for about three years. I was amazed!”

Shortly after she gave birth to her second child, MacCormack’s back pain returned. “Again, he did one treatment—this time a transforaminal epidural,” she says. “That was four years ago and I haven’t had back pain since.”

Understanding the Treatment Process

As MacCormack’s experience shows, interventional pain management can create significant relief, but there is no ultimate cure for back pain. The right treatment, however, will be effective on a long-term basis, assures Dr. Glaser.

“Pain can reoccur,” he says. “Basically, we’re all developing degenerative disc disease as we age. It’s a fact of life. While most people won’t have severe pain from that degeneration, the small percent who already have back issues can expect to continue treating it.”



But by continued treatment, Dr. Glaser isn’t referring to frustrating day-to-day or week-to-week therapies that barely cover the pain; he’s referring to meaningful relief.

“I’ve had patients I’ve given injections to who I haven’t seen in five years,” he says, “although I’d say that most of my patients require treatment once or twice a year. We don’t want the treatments to give the patient just a week of relief. If it doesn’t last longer than that, it wasn’t that effective, so we’ll try something else. If a patient gets up to nine months of relief, then that’s fantastic.”

Of course, there is a bit of trial at first to test out which treatment is most effective.

“Sometimes the first treatment we try

works; sometimes it’s the fourth one that’s most effective,” says Dr. Glaser. “As we try them out, we’re finding what is likely causing your pain. And because these treatments have little risk, it doesn’t hurt you for us to start over with a new treatment. We just follow the treatment pathways until we find success. And we follow the pathways starting with the lowest-risk treatments first. If something minor works, we don’t have to keep moving up the scale.”

Who Can Benefit from Interventional Pain Management?

According to Dr. Glaser, anyone experiencing pain can benefit from interventional pain management, although almost 90 percent of the patients he sees are seeking help for spine-related pain (lower back pain, neck pain and associated extremity pain).

Unfortunately, many of the patients who visit interventional pain doctors have already suffered through years of pain and failed treatments. While these patients’ conditions are treatable, they may have developed chronic problems that are more difficult to address. Patients who consult an interventional pain doctor early on have a better chance of success.

“It’s much better when we see a patient right at the point where it’s clear they have a back pain issue that isn’t going away—usually one or two months after they first experience the pain,” says Dr. Glaser. “If you go to an interventional pain doctor, we’re going to try to narrow your pain down to what’s causing the pain in your back as quickly as possible—and to treat it as soon as possible.

“It’s so much better for the patient, and

we're really trying to get the word out about that," Dr. Glaser continues. "We've talked to other doctors, to case managers for workers' compensation ... just everyone we can get the word out to. We want interventional pain management to be one of the first lines of treatment. If we see the patients early, it will help prevent chronicity. It will transform back care in the United States."

Interventional Methods

Because interventional pain management is so comprehensive, there are a variety of treatments available. The type of treatment any given patient receives depends on his or her unique condition. However, interventional pain doctors typically start with the least invasive treatments, then work their way through other treatments if necessary. The following are effective intervention methods for back pain:

Trigger point injections: Trigger point injections treat painful areas of muscle.

Facet Joint Injections:

This fairly common treatment involves an injection in the facet joint and can be done in the neck, lower back or between the shoulder blades.

Medial Branch Nerve Blocks: This treatment is conducted if the facet joint injections are unsuccessful. It temporarily interrupts the pain signal.

Radiofrequency Neurotomy: Radiofrequency neurotomy is another alternative to facet joint injections. In this procedure, the branch nerve is purposely damaged to prevent it from sending pain signals to the brain.

Epidural Steroid Injections: Epidural injections use anesthetic and steroid medications injected into the epidu-

ral space to relieve pain or diagnose a specific condition. This treatment is popular for people who suffer from sciatica.

Cryoablation of Peripheral Nerves: This therapy partially injures a nerve by creating a ball of ice around it, while the outer portion of the nerve remains in place.

Botox Injections for Muscle Spasms and Pain: Botox helps relax muscles. These injections have been successful in the treatment of migraine pain.



Intradiscal Electrothermal Therapy: Disc pain—not from the disc pressing on a nerve, but from the disc itself—tends to respond well to this treatment. It involves heating up the disc where the pain nerves are located. In the past, very little could be done for this condition other than surgery.

Percutaneous Disc Decompression: This procedure allows a doctor to shrink a disc by removing tissue from it. It relieves pressure and works well for herniated discs.

Percutaneous Vertebroplasty/Kyphoplasty: This treatment addresses the fracture that's a precursor to osteoporosis. The doctor can put cement into the central vertebral body so that

it won't move or cause pain anymore. It helps eliminate the need for surgery.

Spinal Cord Stimulation: This is one of the later-phase therapies for patients who haven't had success with other treatments. It uses electrical impulses to block pain from being perceived in the brain.

Intrathecal Drug Delivery: This is also a later-phase therapy that is more invasive. A pump is surgically implanted to deliver pain medication to the area of the spine where the pain is located.

Finding an Interventional Pain Physician

Dr. Glaser describes the decision to see an interventional pain doctor as similar to making a decision to see a cardiologist.

"If you have a heart condition, you don't want to go to a general practitioner—but you don't want to go straight to the heart surgeon either," he says. "You'll want to go to a cardiologist to receive the best treatment for your heart—and you'll want to go as soon as possible. If you're experiencing chronic back pain, you'll want to seek out an interventional pain management doctor before consulting a surgeon."

MacCormack considers herself fortunate to have been introduced to interventional pain management by the health care professionals she works with, but she wants other people to be aware of the option as well.

"I was first told to have surgery, but thank God I knew otherwise because it's been 10 years and I'm still good," she says. "I would encourage anyone to look into interventional pain management before considering surgery. It's important to know your options."