

Aches, Pains, and Prolotherapy

Here's an obscure but reportedly effective treatment used by integrative medicine practitioners for joint and spinal pain

BY BOBBYE MIDDENDORF

Sharon Klopner was walking home from work in late May when she stepped into a puddle — and on down into an invisible hole, severely twisting her ankle and tearing ligaments. The podiatrist she consulted had the injury x-rayed, giving her the advice to stay off it, elevate it, and take steroids. The early indications were that it would take nine months to heal. Klopner, a person with great respect for integrative medicine and an athlete training for the marathon, decided that there had to be a better way.

From strains, sprains, tennis elbow to whiplash, carpal tunnel syndrome, and arthritis, millions of people experience chronic and acute pain. Conventional (allopathic) medicine often treats the symptoms (pain) without addressing underlying causes. Or alternatively, surgery is recommended. Prolotherapy appears to be an alternative to both.

Both M.D.s and D.O.s (doctors of osteopathy) who practice prolotherapy — also known as ligament regeneration injection technique (LRIT) — find this noninvasive, nonsurgical treatment frequently offers relief for musculoskeletal problems that cause chronic and acute pain. Their patients agree.

Sharon Klopner consulted with Dr. Nicole King, wondering if prolotherapy would alleviate the pain and speed her healing. King, a local M.D., practices integrative medicine, including prolotherapy, from her Hyde Park offices. She confirmed the ligament damage. Reports Klopner, “I’d been limping badly and was in constant pain. I was at a point where I practically had to be carried to my car the pain was so bad. Within the first 24 hours following the first treatment, I was able to walk on the [injured] foot. A week later I could walk relatively pain-free.” Klopner took two treatments. King typically schedules treatments at approximately four to six week intervals, to take advantage of the flow of the body’s natural healing process and tissue growth cycle. Although she is not yet back to running, Klopner has been able to do standing yoga poses for progressively longer

periods of time without pain.

According to The American Association of Orthopedic Medicine, one of the major medical associations that support education about, and use of, these diagnostic and nonsurgical modalities, prolotherapy provides “relief for acute pain and chronic pain emanating from the cervical spine (neck), thoracic spine (midback), lumbar spine/sacroiliac region (low back), upper limb (shoulder-elbow-wrist-hand) and the lower limb (hip-knee-ankle-foot).”

Dr. David Zeiger, D.O., local practitioner and President of The American Association of Orthopedic Medicine, says this therapy not only helps alleviate pain, but strengthens underlying tissues as well. “Recent research has confirmed that LRIT will stimulate the cells of ligaments and/or tendons to manufacture specialized growth factors that not only make new ligaments but also contribute to cells for repair of nerve fiber, blood and lymphatic vessels.”

The process starts with the practitioner doing extensive detective work, notes Zeiger. “It begins with identifying ligament weakness at a particular joint. It’s important that thorough orthopedic and neurological exams are done to specify the source of the pain problem. Based on the patient’s medical history, additional diagnostic tools like X-rays, MRI, nerve, and muscle testing, or blood tests might be required.”

Former Surgeon General C. Everett Koop was a prolotherapy success story. Not only did Koop personally benefit from the treatment, but went on to treat others before being called to Washington, D.C.

Injections of Sugar Water

How does it work? The doctor injects a solution into the weakened area. The specific make-up of the solution can vary from patient to patient. Often it includes a combination of anesthetic and dextrose, or sugar water. Generally steroids are not used as steroids



In prolotherapy treatments, the physician injects a dextrose solution at the site of the musculoskeletal pain.

can be detrimental to regaining strength in joint tissue, according to “Pain Management with Regenerative Injection Therapy (RIT),” by Felix Linetsky, M.D.

Injections into joint tissues have a long history. In this year’s edition of *Pain Management: A Practical Guide for Clinicians, 6th Edition*, the Linetsky article mentioned above, offers a history of the considerable number of studies and results from such injection therapies.

George A. Hackett, M.D., is considered one of the early leading luminaries in this arena and the person who gave prolotherapy its name, though other doctors did joint injections with different solutions and different names from the mid-1930s onward. Prolo, short for “proliferation,” refers to the injections that create a prolifer-

ation of cell growth derived from mustering the body’s natural defense and healing mechanisms.

Linetsky discusses, in his article, why this therapy seems to work. Injecting the dextrose solution into painful joints creates inflammation. Could that be just what the doctor ordered? So it seems. According to Linetsky, “The inflammatory response is intertwined with the regenerative, reparative process... [This] stimuli may lead to two distinct repair pathways. The first is regeneration, which replaces injured cells by the same type of cells; and the second is fibrosis, or the replacement of injured cells by fibrous connective tissue. Often, a combination of both processes contributes to the repair.”

Over the years, studies and tests have shown this is a useful treatment for many patients. Says Zeiger, “New ligament growth, improved strength, stability, and decreased pain should begin to occur within five to seven weeks from the first treatment.”

Depending on where the doctor receives prolotherapy training, the pattern of time between injections can vary from one-two weeks to four-six weeks. According to King, the frequency of treatments and where the doctor studied this modality are two important questions that patients should ask a provider before starting treatments.

Learn more about Prolotherapy

Good explanations, success stories, testimonials, and lists of practitioners are available online. Here are a few local resources and Web sites that can help.

- The American Association of Orthopedic Medicine, www.aaomed.org
- Links to an extended article on Prolotherapy by Dr. Ross and Marion Hauser, www.caringmedical.com/therapies/prolotherapy.asp. They also oversee the Web site www.prolonews.com
- G. Megan Shields, M.D., (in California), www.prolodoc.com
- Mark Wheaton, M.D. (in Minnesota), www.wheatons.com/prolotherapy.htm
- Interested M.D.s and D.O.s can check out www.prolotherapy-training.com

Sudden and excruciating back pain sent Theresa Sawyer through all the conventional treatments, including three epidurals, the maximum that a person can have in a year, all without relief. After a year of debilitating pain caused by a herniated disk pressing on the sciatic nerve, she was walking with a cane and her quality of life was deteriorating. She and her orthopedic doctor spoke about the options. It was either surgery — with a 50/50 chance that she would continue to be in pain — or referral to a colleague, in this case Dr. Zeiger. Sawyer was not an aficionado of alternative modalities, but she was determined to explore every avenue before succumbing to surgery.

Sawyer says, “We started with acupuncture for several months and the pain lessened, but at a certain point, I reached a plateau. That was when he [Zeiger] started educating me about the options, including prolotherapy. He gave me all kinds of articles to read; we had intellectual discussions about the issues... It’s a difficult treatment, and he gave me plenty of time to consider it. I knew for the treatment to be successful, I had to believe the treatment would work, that it was possible to live without pain.

“He explained what the body needed to do to heal, how the treatment creates an atmosphere of infection so that the body’s defenses are brought in to repair itself. All this information helped me make an informed decision. He raised my level of thinking for a better way of life.”

In late summer 1999, her treatments concluded. “I haven’t had significant back pain since receiving the first treatment, just the occasional twinge. I no longer need a cane. I play golf now, live an active life, play with my grandchildren. Although it’s a difficult procedure, the results are worth it.”

Lloyd R. Saterski, M.D., editor-in-chief of *The Pain Clinic Journal*, editorializes in the April 2000 issue about issues that have kept LRIT from becoming more common in mainstream medicine. Partially it’s about money. Says Saterski, “One has to look at how medical research gets done in the United States. There has to be money directed into a project... Prolotherapy, which uses simple and readily avail-

able compounds, has never attracted the interest of pharmaceutical companies or device manufacturers....”

Moreover, doctors who practice prolotherapy are not intent on accumulating evidence for studies but are rather focusing on the clinical care of their patients. Saterski notes that, “In the trenches, the physician is thrust daily into situations where patients with intractable symptoms beg for help. In such situations, it is difficult for clinicians [practicing prolotherapy] to perform research with [double blind] and placebo controls, the standards of allopathic medicine.”

That said, some studies have been done. Recently Kenneth D. Reeves, M.D. and Khatab Hassanein, Ph.D. have published placebo-controlled, double-blind studies of dextrose prolotherapy, one reporting on osteoarthritic thumb and finger joints (published in *The Journal of Alternative and Complementary Medicine*, Vol 6, #4, 2000, pg 311) and another for knee osteoarthritis (published in *Alternative Therapies*, Vol 6, #2, March 2000, pg 68). Both concluded that dextrose prolotherapy was clinically effective and safe in treating these problems, including clinically and statistically significant improvements in knee osteoarthritis.

As Saterski suggests in his editorial, it’s important that allopathic physicians keep an open mind. Ross Hauser, a Chicago M.D. and author of *Prolo Your Pain Away*, has even captured a prolotherapy success story from former Surgeon General C. Everett Koop. Not only did Koop personally benefit from the treatment, but went on to treat others before being called to Washington, D.C.

Ramona Joseph, a doctor of divinity and patient of Dr. Nicole King, recounts many years of knee pain for which she sought treatment a couple of years ago. “It finally got unbearable so I couldn’t walk up and down the stairs in my home. Eventually I fell. I had prolotherapy on both knees, four treatments on one knee that was worse, two on the other. Knees are weight-bearing joints and this process strengthened the tissue around the knee. I didn’t experience side effects after the treatment either. I followed the treatment with a

warm bath and warm compresses to get the serum into the joint faster. But right away I could move a lot better and wasn’t having the pain. This treatment kept me from having knee replacement surgery. I recommend it to anyone,” concludes Joseph.

With or without funding for research, with or without double blind studies, patients report that this modality works. The proof, they say, is in being and remaining pain-free. Stories like those of Sharon Klopner, Therese Sawyer, and Ramona Joseph abound in the annals of prolotherapy. While it’s not a panacea, nor the answer for every ache and pain, it’s certainly a viable method — in the hands of an experienced practitioner — for treating pain.

Most insurance companies will cover part of prolotherapy treatments, according to Hauser, with the patient responsible for whatever is not covered. Costs for one session vary from \$100-\$500. **CC**

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