The Case Report is a regularly featured column meant to highlight the clinical applications of alternative or integrative therapies as they are implemented in patient care. Preference will be given to cases in which diagnosis, treatment, and outcomes are clearly defined.

ACUPUNCTURE TREATMENT FOR OSTEOARTHRITIC PAIN AND INFLAMMATION OF THE KNEE

Adarsh M. Kumar, PhD, and Xue-lan Wen, MD

Acupuncture, the ancient Chinese art and science of healing, is now accepted in the scientific community as one of the effective analgesic and anti-inflammatory modalities. The main principle of the therapeutic effect of acupuncture is the stimulation of selective acupoints, situated along meridians in the body. Stimulation is initiated by inserting needles of specific length and thickness. Performing acupuncture on specific points is believed to restore bodily functions by promoting the natural flow of vital energy throughout the system. Energy becomes obstructed in “dis-eased” body systems that are exposed to unavoidably stressful conditions.

In addition to its anti-inflammatory effect, acupuncture is also becoming popular because of its effectiveness in the treatment of various physical and mental health conditions caused by dysregulation of neurohormonal and neurotransmitter systems (endorphins, monoamines, and stress hormones, such as cortisol). These conditions include obesity,1 ailments of the cardiovascular and respiratory systems, weight reduction, nausea, rheumatological conditions,2 depression, anxiety and nervousness,3 sleep problems,4 smoking cessation,5 and drug addiction.6 A number of reports also have described beneficial effects from acupuncture as a treatment of osteoarthritic pain of the hip and knee joints.7,8

Osteoarthritis affects synovial joints and primarily causes degeneration and destruction of hyaline cartilage. At present, no cures are available for osteoarthritis, and the primary goal for any therapeutic modality is to relieve pain, improve the functional status of the joints, and minimize deformity.

Many controlled clinical trials have shown promising results with acupuncture treatment for pain in general and for osteoarthritis, back pain, asthma, weight reduction, and stroke rehabilitation.9,10 One study also demonstrated the effectiveness of acupuncture in treating osteoarthritis and fibromyalgia.11 Electroacupuncture has been used for treatment of appetite control and knee osteoarthritis.12 A long-term study13 carried out for 49 weeks on 2 groups of patients with knee osteoarthritis showed that the group receiving acupuncture treatment consumed fewer analgesics than the group that did not receive the treatment. Subjects also reported 80% subjective improvement, as well as an increase in their knees’ range of motion. This study showed that acupuncture eased discomfort while the subject waited for surgery and even served as an alternative to surgery, as 7 of the subjects opted not to undergo surgery after the acupuncture treatments.

In this report, I (A.M.K.) want to share my own experience of the beneficial effect of electroacupuncture in alleviating an episode of severe osteoarthritic knee pain and inflammation. Before the first acupuncture session, I was not able to walk even a few steps without intense pain. Lifting either of my feet for a forward step was an intensely painful process. The first acupuncture session provided comfort within 2 days, and the effect of that 1 session lasted for several days. Before the effects of that session waned, I received another treatment. At each session, the selection of points was judged by the acupuncturist based on the amount and nature of the inflammation and pain. The pain was measured by a self-rated, 10-point semantic rating scale; inflammation was assessed by visual examination of the knee and the surrounding areas.

Acupuncture was performed twice a week, and each session lasted 45 minutes. Initially in this case, the acupuncture treatment of the knees for the first 8 sessions consisted of simple insertion of the needles at the points shown in the Table. Subsequently, the acupuncture was supplemented with an electrical stimulation, which was found to be very beneficial in reducing pain and swelling. The equipment used for the electroacupuncture was 1C-1107 (Multipurpose Electron Acupunctoscope WQ-10C2, Beijing,
Peoples' Republic of China), in which the low frequency is 1.3 Hz in intermittent electrical waves.

During each session, the sensation of tingling and movement of impulses in both legs was felt distinctly and only in the lower limbs, ie, from the knees to the ankles and feet. This feeling was accompanied by feelings of relaxation and calm. In the first session and each subsequent session, reduction in the swelling on and around the knees was observed through visual examination by the acupuncturist. In the last 2 sessions (9 and 10), 3 additional acupoints (Ashi points, nonspecific) were treated, and this had a supplementary effect on pain relief and swelling. Thus, the experience of pain relief and decreased inflammation of osteoarthritic knees with acupuncture treatment was extremely helpful. I was able to postpone knee replacement surgery by almost 1 year.

Acupuncture, as an important complementary modality, has proved its efficacy in the treatment of a number of health problems. My personal repeated experience with acupuncture treatment for stress relief has always been rewarding in terms of regaining my emotional balance, but the relief of osteoarthritic knee pain described in this study has shown even greater benefit.

References

Acupuncture of specific points
and pain relief in knee osteoarthritis

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*ST indicates stomach; GB, gallbladder, SP, spleen; LV, liver meridians.