



Arthritis News

Media Contact: Tammy McCoy
(404) 633-3777 (until Oct. 15)
(210) 582-7010 (Oct. 16–Oct. 21)
tmccoy@rheumatology.org

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TRADITIONAL CHINESE ACUPUNCTURE PROVES EFFECTIVE AS ADJUNCTIVE THERAPY FOR OSTEOARTHRITIS OF THE KNEE

SAN ANTONIO, TEXAS—Traditional Chinese acupuncture—the use of fine needles inserted into the skin at precise points—in conjunction with medical treatment reduces pain and improves function in patients with knee osteoarthritis, according to research presented this week at the American College of Rheumatology Annual Scientific Meeting in San Antonio, Texas.

Osteoarthritis, the most common form of arthritis, is a chronic disease. It causes the breakdown of cartilage, the shock absorbing tissue that covers the ends of bones in a joint, resulting in pain and loss of motion. Today, more than half of the 35 million people in the U.S. age 65 and older have evidence of osteoarthritis in at least one joint.

To study therapies for the disease, 570 patients, average age 65.5 years, with osteoarthritis of the knee participated in a 26-week randomized controlled trial. The patients were divided into three groups, each group undergoing either traditional Chinese acupuncture (needling of a predefined set of points according to the diagnosis of Bi syndrome) or sham acupuncture (tapping of needles at the same predefined set of points), or participating in the Arthritis Self-Help Course while continuing their regular medical regimen.

Patients randomized to acupuncture received a total of 23 treatments from licensed, trained and certified acupuncturists. Patients in the education group participated in two-hour group sessions over a 12 week-period. All were advised to continue regular analgesic or anti-inflammatory treatment as needed. Prior to and throughout the study, participants' arthritis pain and function levels were compared using the WOMAC Osteoarthritis index, a questionnaire used to measure pain, function and stiffness of the knee. At the end of 26 weeks, there was a greater decrease in pain subscores and improvement in function subscores for patients in the acupuncture group than for those in the group receiving sham acupuncture (-3.79 and -12.42 respectively for pain and function in the acupuncture group versus -2.92 and -9.87 in the sham acupuncture group).

Acupuncture, which was cited in 1997 by a National Institutes of Health panel as an acceptable treatment for many pain conditions, is one of the most popular complementary and alternative therapies within the U.S. attracting an estimated 15 million Americans. While previous individual studies of acupuncture as therapy for osteoarthritis have been small, and many clinicians doubted its effectiveness, data gained during this study confirmed a significant improvement in patients receiving traditional Chinese acupuncture therapy as compared to those in both the sham acupuncture and the education groups.

"These data show that traditional Chinese acupuncture provides clinically important relief of pain and improvement in function in patients with symptomatic knee osteoarthritis when added to background therapy," said Marc C. Hochberg, MD, MPH, Professor of Medicine and Head, Division of Rheumatology & Clinical Immunology at the University of Maryland School of Medicine, Baltimore, MD, and an investigator in the study.

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The American College of Rheumatology is the professional organization for rheumatologists and health professionals who share a dedication to healing, preventing disability and curing arthritis and related rheumatic and musculoskeletal diseases. For more information on the ACR's annual meeting, see www.rheumatology.org/annual.

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Editor's Notes: Dr. Hochberg will present this research during a scientific session at the ACR Annual Scientific Meeting from 10:45–11:00 AM CT (11:45 AM–noon ET) on Wednesday, October 20, in Ballroom C of the Henry B. González Convention Center. He will be available for media questions during a briefing at 8:30 AM CT (9:30 AM ET) on Monday, October 18, in the on-site Press Conference Room, Room 218.

Traditional Chinese Acupuncture is Effective as Adjunctive Therapy in Patients with Osteoarthritis of the Knee

Marc Hochberg, Lixing Lao, Barker Bausell, Patricia Langenberg, Brian Berman. University of Maryland, Baltimore, MD

Purpose: A systematic review of randomized controlled trials (RCTs) of traditional Chinese acupuncture (TCA) in patients with knee osteoarthritis (OA) suggested that patients who received TCA had improvement in both pain and function compared to controls; however, all of the individual studies were small and had methodological limitations (Arthritis Rheum 2001;44:819–25).

Methods: A multicenter 26-week NIH-funded RCT was conducted to assess the efficacy of TCA compared with two control groups: sham acupuncture (SA) and education. 570 patients with symptomatic knee OA, defined as moderate or greater pain on a 5-point Likert scale despite background therapy, who fulfilled ACR criteria were enrolled. Patients had a mean [SD] age of 65.5 [8.6] years; 69% were white, 64% were women. 190 patients were randomized to each group in blocks of multiples of three. Patients in the TCA group received a total of 23 treatments with 32 gauge acupuncture needles inserted to a conventional depth at 9 standard points that traversed the area of knee pain (Rheumatol 1999;38:346–54); guide tubes were tapped at 2 sham points on the abdomen. Patients in the SA group had needles inserted in the 2 sham points on the abdomen and guide tubes tapped onto the surface at the 9 identical standard points.

The acupuncturists were licensed and trained and certified by one of the authors. Patients in the education group received the Arthritis Self-Help Course over 12 weekly 2-hour group sessions. All patients were advised to continue background analgesic or antiinflammatory therapy. The primary outcomes were change in the WOMAC pain and function scales over time. Research assistants who collected outcomes data, participants who received TCA or SA and statisticians were masked to treatment allocation. An intent-to-treat analysis using a mixed longitudinal model was performed; statistical comparison was made between the TCA and SA groups only.

Results: At entry, the mean [SD] WOMAC pain and function subscale scores were 8.94 [3.50] and 31.7 [12.0] (ranges of 0–20 and 0–68, respectively); there were no differences by treatment group. There was a significant time*group interaction for improvement in both the WOMAC pain and function subscales for the patients who received TCA vs SA; the mean changes from baseline by group at weeks 4, 8, 14 and 26 are shown in the Table. These results were confirmed in analyses limited to completers, and using LOCF to impute missing data (data not shown). No serious treatment-related adverse events occurred during the trial.

Conclusions: These data confirm that TCA is effective as an adjunctive therapy for reducing pain and improving function in patients with symptomatic knee OA.

Change from baseline in outcome measures (WOMAC Pain/Function) by treatment group

Week	No	TCA	SA	P-value
4	TCA 173 SA 163	Pain -2.22 (0.24) Funct -7.56 (0.78)	Pain -1.98 (0.25) Funct -5.90 (0.66)	Pain 0.48 Funct 0.15
8	TCA 169 SA 161	Pain -3.15 (0.29) Funct -10.77 (0.90)	Pain -2.66 (0.26) Funct -7.84 (0.76)	Pain 0.18 Funct 0.01
14	TCA 158 SA 157	Pain -3.63 (0.31) Funct -12.18 (0.96)	Pain -2.68 (0.33) Funct -9.40 (0.94)	Pain 0.02 Funct 0.04
26	TCA 142 SA 141	Pain -3.79 (0.33) Funct -12.42 (1.12)	Pain -2.92 (0.30) Funct -9.87 (0.93)	Pain 0.003 Funct 0.009

Disclosure: M. Hochberg, None; L. Lao, None; B. Bausell, None; P. Langenberg, None; B. Berman, None