

Acupuncture Is Useful Adjunct in OA of Knee
'It is reasonable to consider acupuncture among the adjunctive therapies'
for management of OA pain.

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SAN ANTONIO — Acupuncture was shown to be an effective adjunct in the treatment of osteoarthritis of the knee in a large phase III study funded by the National Center for Complementary and Alternative Medicine.

In a randomized clinical trial that compared traditional Chinese acupuncture with sham acupuncture or an educational program, statistically significant improvements were seen in pain and function with the true acupuncture, Marc C. Hochberg, M.D., reported at the annual meeting of the American College of Rheumatology.

The study included 570 patients with symptomatic knee osteoarthritis (OA), defined as moderate to severe pain on a 5-point Likert scale despite background therapy with analgesics and anti-inflammatory agents.

The average age of the patients was 65.5 years, 69% were white, and 64% were women.

The true acupuncture intervention consisted of insertion of needles at 9 points, 5 of which were local and 4 of which were distal to the knee, said Dr. Hochberg, professor of medicine, University of Maryland, Baltimore. The acupuncture points were determined according to the precepts of traditional Chinese medicine, which classifies all types of arthritis as "Bi syndrome," with symptoms resulting from an obstruction inhibiting the normal circulation of *qi* (energy) throughout the joints.

Additionally, low frequency electrical stimulation was applied at a single point in the infrapatellar area of the knee, Dr. Hochberg said.

The patients received acupuncture treatments twice a week for 8 weeks, then weekly for 2 weeks, every other week for 4 weeks, and monthly for 3 months, for a total of 25 treatments over 26 weeks.

Acupuncturists participating in the study were rigorously trained and certified, Dr. Hochberg said.

The validated sham acupuncture intervention consisted of the tapping of needles, without insertion, at the same points as in the true acupuncture, as well as insertion of needles at 2 points

on the abdomen that were not acupuncture points. In addition, a mock TENS unit was applied to the infrapatellar point; when turned on this generated no electrical current.

Patients randomized to the education group underwent the Arthritis Self-Help course whose leader was trained by the Arthritis Foundation. They attended 2 hours of classes weekly for 12 weeks and had monthly telephone calls for the duration of the study.

Patients who had previous experience with acupuncture were excluded from the trial to preserve blinding of the sham acupuncture, he said.

The primary outcome measures were the pain and function subscales of the Western Ontario and McMasters Universities (WOMAC) OA index. Ranges for the pain subscale are from 0 to 20, while those for the function subscale are from 0 to 68, Dr. Hochberg said.

At entry the mean WOMAC scores for all treatment groups were 8.94 and 31.7 for pain and function, respectively.

By week 26, significant differences in pain and function were seen in patients who were randomized to the true acupuncture group, compared with those randomized to the sham acupuncture group. (See box, above left.)

On secondary outcome measures, statistically significant differences were seen on patient global assessment between the true and sham acupuncture groups, though not on the SF-36 subscale or the 6-minute walk test, he said.

"The effect size is rather small, at about 0.25," Dr. Hochberg commented. This is similar to the effect size that is reported for intra-articular injections of hyaluronic acid (JAMA 2003;290:3115-21).

Adverse events were uncommon and did not differ by treatment group. There were no adverse events that were attributed to acupuncture.

This "is clearly the most definitive study to date looking at acupuncture for arthritis and it supports the suggestion from previous, much smaller and less well designed trials that acupuncture can have adjunctive benefit in the management of osteoarthritis pain," Sharon Kolasinski, M.D., said in an interview.

A 1997 NIH consensus statement concluded that acupuncture was a reasonable adjunctive or alternative treatment for patients with OA.

"Certainly, this study strengthens the argument that it is reasonable to consider acupuncture among the adjunctive therapies available to us for management of osteoarthritis pain," said Dr. Kolasinski, chief of clinical services in the Department of Rheumatology at the University of Pennsylvania.

Although the effect size was small, Dr. Kolasinski emphasized that the patients were already being treated by standard interventions and still had inadequate control of symptoms.

"Despite the fact that it's a small effect size, one must recognize that this is added onto background therapy, which in the majority of these patients included NSAIDs with or without additional analgesics," Dr. Hochberg added.

A repeated measures analysis was conducted in order to “look at the pattern of response, and we anticipated that we would see a similar early response to sham and traditional acupuncture, corresponding to the placebo effect, and that the curves would then separate out over time,” he said.

Dr. Kolasinski added that a second NIH-funded trial currently being conducted at the University of Pennsylvania comparing physical therapy to physical therapy plus acupuncture for osteoarthritis of the knee “should give us additional information about the optimal use of acupuncture for osteoarthritis.”

