

Arthritis Knee Pain Eased by Chinese Med

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The traditional Chinese medicine practice of Moxibustion was effective in reducing pain and improving function among patients with knee osteoarthritis, a randomized clinical trial found.

After 6 weeks of thrice-weekly sessions of Moxibustion, in which [the herb *Artemisia vulgaris*](#) is burned in a small device placed near knee acupuncture sites, pain scores decreased from 6.69 to 3.03 among patients receiving the active treatment, compared with a decrease from 6.27 to 4.56 in patients receiving a sham

treatment ($P<0.001$), according to Xueyong Shen, of Shanghai University of Traditional Chinese Medicine, and colleagues.

In addition, physical function difficulty scores decreased from 33.4 to 16.43 and from 30.99 to 21.70 in the active treatment and sham groups, respectively ($P=0.015$), [the researchers reported online in *Arthritis Research & Therapy*](#).

Moxibustion is a modality that has been used by acupuncturists for thousands of years and has been considered effective for relief of arthritic pain. But previous studies of this treatment have been of poor quality, so Shen and colleagues undertook a trial intended to be rigorously blinded and controlled, using the standard outcome measure of the Western Ontario and McMaster Universities' Osteoarthritis Index (WOMAC).

They enrolled 110 patients who had radiologically confirmed osteoarthritis, in that there was one or more osteophytes at the tibiofemoral joint.

The [device used was commercially available](#), and contains a cylindrical opening through which a small pillar of moxa is inserted. The base consists of an adhesive membrane. The sham device was identical, except the base membrane is metal and lessens the heat and smoke release.

Only patients who had never before received Moxibustion were included, so they would have no expectations about sensations experienced during the procedure, and they were told that the device used had been recently developed and they might or might not feel any heat during the procedure.

Blinding of the acupuncturists, who all had at least 5 years of training, was accomplished by assigning each of them to use the active treatment on Mondays, Wednesdays, and Fridays, and the sham device on Tuesdays, Thursdays, and Saturdays.

The local acupuncture sites chosen were ST 35, EX-LE4, and an Ashi tender point.

Patients' mean age was 65, and two-thirds were women. In the majority of cases, both knees were affected. They were allowed to continue on their baseline pain medications throughout.

By week 3, WOMAC pain scores were 4.80 and 5.56 in the active treatment and sham groups, respectively ($P=0.012$).

At week 12, pain scores were 2.85 and 4.41 in the two groups, respectively ($P=0.001$), and at week 24 the scores were 3.14 and 4.51 ($P=0.002$).

For physical function, by week 3 the active and sham treatment groups had WOMAC scores of 22.10 and 26.71, respectively ($P=0.002$), and at week 12, the scores were 14.61 and 21.98 ($P<0.001$).

However, by week 24 there no longer was a significant difference for physical function, with scores of 15.92 and 20.50 ($P=0.058$).

The sole adverse event reported by the active Moxibustion group was flushing of the skin at the site of the treatment. There had been no dropouts at the end of the 6-week treatment phase, and 90% were still in the study by the time of the final visit.

Just how Moxibustion might influence the arthritic joint remains unclear, but may involve factors including heat, odor, and smoke.

"Moxibustion might play a role similar to that of acupuncture stimulation, although its effect on the sensory nerve would be more superficial," Shen and colleagues wrote.

[Marcus Hsu](#), a licensed acupuncturist at the University of Maryland Center for Integrative Medicine in Baltimore, agreed.

"The use of moxa is very common in Chinese medicine and is considered as another kind of 'needle.' Based on my professional experience, I would think the mechanisms of moxa stimulation would be similar to an actual acupuncture needle, although the area of stimulation is larger but shallower," he explained to *MedPage Today*.

Shen's group further explained, "Thermal stimulation might activate the sensory nervous system through peripheral nerves such as C fibers and A-delta fibers, in turn transmitting sensory input to the central nervous system, which activates neurons to release beta endorphins and other neurotransmitters."

Other mechanisms that might contribute include local blood vessel dilation, mast cell degranulation, and release of endogenous opioids, according to the study authors.

Acupuncturist Hsu also commented that he believes that the blinding in the study was adequate. At the end of the study, the researchers asked all participants to guess their group assignment, and confirmed successful blinding of the practitioners with the Kappa Consistency Test ($K= -0.53$, $P=0.833$) and of the patients with the Fisher's Exact Test ($P=0.565$).

Moxibustion "provides physicians/acupuncturists with an additional tool in their arsenal to address chronic osteoarthritis pain. It should be utilized more often and it's extremely economical," Hsu noted.

The study authors called for a larger randomized trial to confirm these findings, and Hsu suggested that a three-arm trial comparing acupuncture, Moxibustion, and standard medical therapy for osteoarthritis could be of additional interest.

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