

Acupuncture for Sciatica: Will This Trial Finally Silence the Skeptics?

— Findings from new study raise the bar

by [John Gever](#), Contributing Writer, MedPage Today October 14, 2024

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Real Chinese acupuncture was more effective than a sham version for treating sciatica stemming from herniated spinal disks in a randomized trial conducted in China.

Patients' leg pain scores decreased by 30.8 points on a 100-point scale after 4 weeks of the genuine procedure, versus a decline of 14.9 points among the sham-treated group in the 216-patient trial ($P < 0.001$), according to Cun-Zhi Liu, MD, PhD, of Beijing University of Chinese Medicine, and colleagues.

Findings were similar for [Oswestry Disability Index](#) scores, the group [reported in *JAMA Internal Medicine*](#). Their chief conclusion: "Acupuncture should be a potential treatment option for patients with chronic sciatica from herniated disk."

In a [brief editorial](#), two U.S.-based scholars applauded the work as "a methodologically rigorous study," with multiple practitioners performing the acupuncture and "a well thought-out sham control."

"Recent rigorous studies have moved the needle toward accepting acupuncture as an evidence-based treatment for sciatica," punned Jerard Z. Kneifati-Hayek, MD, MS, of Columbia University in New York City, and Mitchell H. Katz, MD, a deputy editor at *JAMA Internal Medicine*. Noting that Medicare and the VA healthcare system both cover acupuncture for various conditions, they agreed with Liu and colleagues that the procedure "adds an effective, evidence-based, nonpharmacological treatment to address a common chronic condition."

Sciatica from disk herniation is, of course, one of the most common reasons that middle-age people seek medical care. Acupuncture has been used for centuries to treat it in China, but Western doctors have long suspected it was just a placebo effect: modern science has struggled to identify a mechanism of action that comports with its theories of pain generation and transmission. [Multiple Western-style clinical trials](#) have found that it works, but skeptics remain, pointing to small samples and issues with the control treatments.

In this newest effort to demonstrate a genuine, hard-to-deny benefit, Liu and colleagues [designed a trial opens in a new tab or window](#) to be run at six Chinese hospitals. Recruitment took place in mid-2021, despite the COVID-19 pandemic, with 220 patients enrolled out of 359 screened. Mishaps with screening or randomization caused four to be dropped from the analysis.

Patients' mean age was about 51, and roughly two-thirds were women. They had been experiencing symptoms for about 3 years on average. Just over a quarter had previously tried acupuncture; a variety of other therapies including non-steroidal anti-inflammatory drugs, physical therapy, Tuina, and herbal medications had also been used. Leg pain and Oswestry scores (which also range from 0-100, no disability to maximum disability) averaged about 60 and 34 at baseline, respectively.

Treatments were delivered in 10 sessions over 4 weeks, and patients were followed for an additional 48 weeks. Genuine acupuncture followed traditional methods, with needles inserted at seven standard points along the meridians; in the sham group, needles were inserted at seven "nonacupoints away from the meridians," Liu and colleagues explained. Moreover, in both groups, foam pads were placed over the designated points; needles did not penetrate the skin in the sham group, but the pads allowed them to remain upright, helping to blind patients to their assignments. In other respects (duration and frequency), the treatments were the same. Celecoxib (Celebrex) was allowed as a rescue medication.

Effects seen at week 4 were largely maintained through the full year of follow-up. In both groups, leg pain scores -- one of the trial's two primary outcome measures -- continued to decrease as time went on, but the 16-point difference after 4 weeks (95% CI 10.6-21.3) shrank a bit, reaching 10.8 points at week 52 (95% CI 5.2-16.3).

Oswestry scores, the other primary outcome, at week 4 averaged 21.4 points with genuine therapy compared with 29.5 in controls ($P < 0.001$). This difference, too, narrowed over time: at week 52, scores averaged 15.7 and 20.4, respectively, with the difference remaining significant at $P = 0.003$.

Other secondary outcomes included back pain ratings, the Sciatica Frequency and Bothersomeness Index, and Short Form-36 physical and mental health scores. In all of these except the last, results significantly favored genuine acupuncture. There was a weak trend for better mental health at week 4 with genuine acupuncture, but this grew to a significant advantage at the 1-year point (54.6 vs 51.1, $P = 0.004$).

Liu and colleagues observed that the efficacy difference was already apparent after just 2 weeks, both for leg pain and Oswestry scores. They also noted with pleasure that when patients were asked at weeks 2 and 4 to guess which group they were in, blinding was successfully maintained.

Adverse effects, primarily mild bleeding, was substantially more common with true acupuncture (24% vs 5%). None of these required "special medical intervention" or hospitalization, the researchers said.

Limitations included lack of blinding for acupuncturists (although they were instructed to say the same things to patients irrespective of assignment). Results could have been different if

more acupoints were targeted, Liu's group also acknowledged. And the lack of objective (i.e., not patient-reported) outcome measures could also be considered a limitation.



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[John Gever](#) was Managing Editor from 2014 to 2021; he is now a regular contributor.

Disclosures

The study was funded by the National Key Research and Development Program of China and National Science Fund for Distinguished Young Scholars. Study authors and the editorialists all declared they had no relevant financial interests.

Primary Source

JAMA Internal Medicine

[Source Reference: opens in a new tab or window](#) Tu J-F, et al "Acupuncture vs sham acupuncture for chronic sciatica from herniated disk: a randomized clinical trial" JAMA Intern Med 2024; DOI: 10.1001/jamainternmed.2024.5463.

Secondary Source

JAMA Internal Medicine

[Source Reference: opens in a new tab or window](#) Kneifati-Hayek JZ, et al "Moving the needle

(23.10.2024 A Meng aus Internet an Info Center ÖGA)