

# Review: The effectiveness of acupuncture for nonspecific low-back pain is unclear

van Tulder MW, Cherkin DC, Berman B, Lao L, Koes BW. The effectiveness of acupuncture in the management of acute and chronic low back pain: a systematic review within the framework of the Cochrane Collaboration Back Review Group. *Spine*. 1999 Jun 1;24:1113-23.

## QUESTION

Is acupuncture effective for nonspecific acute and chronic low-back pain?

## DATA SOURCES

Studies were identified by searching MEDLINE (1966 to 1996), EMBASE/Excerpta Medica (1988 to 1996), Cochrane Complementary Medicine Field databases, and the Cochrane Library (1997 Issue 1) and by tracking identified trials using Science Citation Index. Bibliographies of relevant studies were checked.

## STUDY SELECTION

Randomized controlled trials were selected if patients with nonspecific chronic, subacute, or acute low-back pain were studied; classical (meridian points) or contemporary (trigger points) acupuncture that involved needling was evaluated; control interventions were placebo acupuncture, other interventions, or no treatment; and outcomes of pain intensity using a visual analog scale, a global assessment (overall improvement, proportion of patients recovered, or subjective improve-

ment of symptoms), functional assessment (Roland-Morris Disability Questionnaire or Oswestry Scale), or return to work (return to work status or number of days off work) were assessed.

## DATA EXTRACTION

Data were extracted in duplicate on study quality, study population characteristics, interventions, and outcomes.

## MAIN RESULTS

52 studies were identified, and 11 randomized controlled trials met the inclusion criteria. Data were not pooled because of study heterogeneity and poor reporting of outcomes. 6 randomized controlled trials included patients with chronic low-back pain; 3 studies included patients with acute, subacute, and chronic low-back pain; and 2 studies did not specify pain type. Study size varied from 17 to 100 patients. 3 randomized controlled trials compared acupuncture with no treatment; they had poor methodologic quality, and the results conflicted. 2 randomized controlled trials (1 of higher methodologic

quality) provided evidence that acupuncture was no more effective than trigger-point injections or transcutaneous electrical nerve stimulation for low-back pain. 8 randomized controlled trials compared acupuncture with placebo acupuncture; 1 of 2 higher-quality studies showed that acupuncture was more effective than placebo for chronic low-back pain, whereas 5 of 6 of the poor-quality randomized controlled trials provided no evidence that acupuncture was better than placebo acupuncture (the other randomized controlled trials had an unclear conclusion).

## CONCLUSIONS

The effectiveness of acupuncture for management of low-back pain remains unclear. Study quality is poor.

*Source of funding: Dutch Health Insurance Board.*

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## COMMENTARY

A group of world leaders in low-back pain research in mostly primary care has done a review in the best tradition of the Cochrane Collaboration. An exhaustive search, explicit selection criteria, and a detailed, trustworthy analysis came up with a "no evidence" verdict and a conclusion that does not allow acupuncture to be included in the list of evidence-based treatment modalities for nonspecific low-back pain. No new evidence on the issue could be identified by a MEDLINE search in mid-September 1999.

The review qualifies, in my view, as state-of-the-art at this point. It underlines the need for better research on acupuncture for low-back pain.

It does not support the conclusion of the U.S. National Institutes of Health Consensus Conference (1) that "acupuncture can be useful

as an adjunct treatment or an acceptable alternative" for low-back pain care. This illustrates once again the gap between consensus and systematic review.

As a clinician, I will answer my patients' inquiries about acupuncture for low-back pain as "not supported by evidence" and will generally refrain from referring patients for this type of care.

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## Reference

1. NIH Consensus Conference. Acupuncture. *JAMA*. 1998;280:1518-24.