

100-point visual analogue scale. Results comparing acupuncture to other active treatments were mixed, however. Acupuncture appeared more effective in three out of four studies using real TENS and two out of three studies comparing acupuncture and pain medications, but was less effective compared to massage, and "statistically significantly less effective" than spinal manipulation.

Long-term effectiveness on pain. Acupuncture was statistically significantly more effective than no additional treatment or sham TENS, and was an average of 61 percent more effective compared to sham acupuncture. Two studies found acupuncture to be more effective than TENS; one trial suggested that acupuncture was statistically significantly worse than massage.[PB]

Functional status and overall improvement. "For improving functioning," the researchers observed, "acupuncture was statistically significantly more effective than the no-additional-treatment control in the short term effects." They added, "For overall improvement, acupuncture was statistically significantly more effective than the sham controls and no-additional-treatment control in both the short- and long-term effects."

Study quality. Of the 22 trials included in the final meta-analysis, only eight met the requirements for being a study of "good quality" according to both the Jadad and Cochrane criteria. Three studies received a Jadad score of four; none of the studies obtained a maximum Jadad score of five. The highest Cochrane score given to any of the trials was a seven (out of 10).

The authors noted that each of the control interventions used in the trials had certain advantages and limitations that had to be considered in interpreting the results of their analysis. For example, the studies that used sham acupuncture as a control generally reported less benefits compared to studies that used no additional treatment as a control. The authors theorized that sham acupuncture needles "may unintentionally stimulate a physiologic response" that could produce "some specific analgesic effects," especially when the sham needles penetrate the skin. In fact, all of the sham-controlled studies included in the meta-analysis involved needles that penetrated the skin at non-specific points.

Paucity of High-Quality Trials Raises Questions About Acupuncture's Effectiveness

Based on the data presented in the randomized trials, the authors suggested that acupuncture "is an effective treatment for chronic low back pain," particularly in terms of providing short-term relief of chronic low back pain. They were quick to add, however, that the data "are sparse and inconclusive" for patients with acute low back pain, and they reported being "uncertain" about acupuncture's ability to provide long-term relief of back pain. The reason for the uncertainty? Because, in the view of the researchers, "longer-term follow-up data are limited in quantity and quality." [PB]

Despite the positive results presented in the meta-analysis, it appears that the main obstacle to the acceptance of acupuncture as a form of care for various types of low back pain remains a dearth of randomized, controlled trials that use large groups of patients and that measure the effects of acupuncture over a considerable length of time.

Fortunately, it appears that more high-quality studies that measure the effectiveness of acupuncture in the treatment of low back pain continue to be conducted, and that several have been, or are about to be, published in peer-reviewed journals. For example, the researchers alluded to two large randomized, controlled trials of acupuncture for chronic low back pain - one conducted in the United Kingdom, the other in Germany - that were not included in the meta-analysis but have been presented at recent conferences. The main results of those trials appeared to correspond closely with the results derived from the meta-analysis.

As the authors stated in their conclusion:

"More research is needed to evaluate acupuncture's effects on acute low back pain, and the evidence comparing acupuncture to other active treatments is inconclusive. Although current estimates of acupuncture's effects on chronic low back pain are statistically significant and clinically important, they are still somewhat preliminary, and the publication of several large ongoing trials will have a major effect on the evidence."

References

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