

Acupuncture Tops Usual Care for Pain in Cancer Survivors

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Two types of acupuncture significantly reduced chronic musculoskeletal pain in cancer survivors as compared with usual care, a randomized trial showed.

Electroacupuncture reduced patient-reported pain by 1.9 points versus usual care, and auricular acupuncture reduced patients' mean pain score by 1.6 points as compared with usual care, which consisted of analgesics, physical therapy, and steroid injections.

Auricular acupuncture failed to achieve noninferiority to electroacupuncture and was associated with more adverse events (AEs), reported Jun J. Mao, MD, of Memorial Sloan Kettering Cancer Center in New York City, and co-authors in [JAMA Oncology](#).

"The magnitude of effect of electroacupuncture was clinically important and durable," the authors wrote. "This finding is consistent with evidence from other large acupuncture trials for chronic pain in the general population. Electroacupuncture has been shown to influence endogenous opioid release, which provides a mechanistic basis for chronic pain management."

"The present trial includes a large and diverse group of cancer survivors and provides evidence that electroacupuncture provides additional benefits beyond usual care, including not only reduction in pain severity, but also improvements in physical function and quality of life and reductions in analgesic use."

The U.S. has a growing population of cancer survivors, who have a [greater pain burden](#) than the general population. [Almost half](#) of cancer survivors receive inadequate pain relief, [adversely affecting](#) quality of life, physical function, and cancer-related outcomes.

A [large body of evidence](#) supports the superiority of acupuncture over usual care for relief of chronic noncancer pain, and last year CMS [approved coverage](#) of acupuncture for chronic lower back pain. A [recent meta-analysis](#) showed that acupuncture reduced cancer-associated pain, but the strength of evidence was considered moderate because of trials' small sample sizes and heterogeneity of acupuncture techniques.

Mao and colleagues reported findings from the largest randomized trial to date of acupuncture for cancer-related pain. The multicenter [PEACE study](#) enrolled adults with a history of cancer but no current evidence of disease. Eligible patients had musculoskeletal pain for at least 3 months and at least 15 of the preceding 30 days and a worst pain intensity within the past week of ≥ 4 (moderate or greater) on the 0-10 scale of the Brief Pain Inventory (BPI).

Patients were randomized 2:2:1 to electroacupuncture, auricular acupuncture, or usual care. Licensed experienced acupuncturists provided both types of acupuncture. During electroacupuncture, needles were placed at four sites near the pain location and four additional sites elsewhere on the body to address comorbid symptoms. The angle and depth of insertion were individualized to each patient's body type and point location. Treatment consisted of 10 once-weekly 30-minute sessions.

Auricular acupuncture originated in China, and practitioners in Europe subsequently refined the technique. In 2016, the U.S. military began developing a [standardized protocol](#), often called "battlefield acupuncture," which Mao and colleagues used in the study.

The protocol began with insertion of one needle into the cingulate gyrus of one ear. The patient then walked for 1 minute. If pain remained ≥ 1 on the BPI, another needle was inserted into the other ear. The process was repeated for the remaining ear points: thalamus, omega 2, point zero, and shen men.

The primary endpoint was change in average BPI score from baseline to week 12, and data analysis included 360 patients. Of 145 patients randomized to electroacupuncture, 136 (93.8%) completed at least eight sessions, as did 117 of 143 (81.8%) patients assigned to auricular acupuncture.

Mean baseline BPI scores ranged from 5.0 to 5.6. The most common sites of pain across all three groups were lower back (27.8% to 36.6%), knee/leg

(14.5% to 23.6%), and hip/thigh (11.0% to 12.5%). At week 12, mean BPI score had declined by 0.48 in the usual care group, 2.39 in the electroacupuncture group ($P<0.001$), and 2.03 in the auricular acupuncture group ($P<0.001$). The 0.36 difference between the two acupuncture groups exceeded the prespecified noninferiority margin of 0.657 for auricular versus electroacupuncture.

AEs in both acupuncture groups were mild or moderate. Bruising was the most common AE in the electroacupuncture group (10.3%), and ear pain was most common with auricular acupuncture (18.9%). Only one patient (0.7%) discontinued electroacupuncture because of an AE, as compared with 15 (10.5%) in the auricular acupuncture group ($P<0.001$).

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