

Breast Cancer

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Acupuncture Reduces Aromatase Inhibitor-Associated Joint Pain

Acupuncture is effective in reducing aromatase inhibitor (AI)-associated joint pain in women with breast cancer, according to SWOG S1200. The randomized blinded sham- and waitlist-controlled trial, presented at the 2017 annual San Antonio Breast Cancer Symposium (abstract GS4-04), demonstrated that the nonpharmacologic option may help to increase adherence to AIs, improving breast cancer outcomes.

“Identification of nonopioid options, such as acupuncture, for pain control is a public health priority. We feel there is now sufficient evidence to support insurance coverage of acupuncture for AI arthralgia,” said Dawn Hershman, MD, MS, the leader of the Breast Cancer Program at the Herbert Irving Comprehensive Cancer Center at Columbia University Medical Center, in New York City.

Dr. Hershman pointed out that AIs are extremely effective for the treatment of hormone receptor–positive breast cancer, useful in the adjuvant setting, in the metastatic setting, and in preventing breast cancer. “But they don’t work if women don’t take them, and the most common reason women stop taking the medication early is due to joint pain or arthralgia,” Dr. Hershman said.

Acupuncture is a popular, nonpharmacologic modality for the treatment of a variety of painful medical conditions. Several small studies have suggested that acupuncture may be beneficial for AI arthralgias; however, others have shown no benefit, Dr. Hershman said. The overall interpretation of these trials has been uncertain due to short duration, small sample sizes and differences in methodology.

In the new study, the researchers enrolled patients with stage I to III hormone-sensitive

breast cancer who were receiving a third-generation AI for at least 30 days prior to registration. Patients needed to have a score of at least 3 (range, 0-10) on the worst pain item of the Brief Pain Inventory (BPI), with symptoms starting or increased since AI initiation. Patients were not included if they were on opioids or corticosteroids, or were receiving alternative/physical therapy for the treatment of joint pain within 28 days before registration. No prior acupuncture treatment for joint symptoms at any time was allowed, but patients could enroll in the study if they had used acupuncture for other reasons more than 12 months beforehand. The median age of patients in the study was 60 years. Investigators randomly assigned 226 patients to receive true acupuncture given twice a week for six weeks (n=110), sham acupuncture (n=59) or waitlist control (n=57); true acupuncture was offered after 24 weeks.

The primary study end point was at six weeks, and the researchers tested maintenance of the intervention by evaluating true acupuncture once a week for an additional six weeks, sham acupuncture once a week for an additional six weeks, and a waitlist control. “We looked at the duration of the potential benefit by evaluating women without any intervention for a subsequent 12 weeks.” All women received acupuncture at the end of 24 weeks.

Patients in the true acupuncture group received standard traditional Chinese medicine point prescription to reduce pain and stress (30-45 minutes per session). Full-body, auricular and a joint-specific acupuncture protocol was tailored to the most painful joints. Patients in the sham acupuncture group received a shallow needle insertion utilizing thin and short needles at non-acupuncture points. “Prior studies have shown that sham acupuncture can result in physiologic effects,” Dr. Hershman said.

The primary outcome measure was worst pain score at six weeks on the BPI. “We found a significant difference in worst pain score comparing true acupuncture to sham acupuncture and comparing true acupuncture to waitlist control. We found no difference between the two groups of sham and waitlist control,” Dr. Hershman said.

The researchers also evaluated what they considered to be a significant meaningful drop: at least a 2-point change in pain from baseline at six months. “With true acupuncture, 58% of patients had a 2-point change compared to 31% in the sham and 30% in the waitlist control arm. Similar results were seen if we looked at a 50% change from baseline,” Dr. Hershman said. True acupuncture was better than either of the two

control groups for other six-week end points analyzed, including BPI average pain, BPI stiffness, the Western Ontario and McMaster Universities Osteoarthritis Index, and the modified Score for the Assessment and Quantification of Chronic Rheumatic Affections of the Hands. The toxicity of the intervention was limited to grade 1 bruising (47% in true acupuncture).

“We have shown consistently with multiple measures assessing pain and stiffness that true acupuncture generated better outcomes than either control group,” Dr. Hershman said. “Transitioning from twice-a-week to once-a-week acupuncture maintained the effect of the intervention. The intervention effects persisted 12 weeks following completion of the intervention.” The cost of the 12-week (18 sessions) intervention was approximately \$1,250 (\$65-\$75 per session).

Commenting on the study after the presentation, Hope Rugo, MD, professor of medicine and director of the Breast Oncology Clinical Trials Program at the University of California, San Francisco, Helen Diller Family Comprehensive Cancer Center, congratulated the researchers. “This is an incredible study,” Dr. Rugo said. “It is something that really needed to be done and will be a big help for our patients.”

—*Kate O’Rourke*