Auricular Point Acupressure to Manage Aromatase Inhibitor–Induced Arthralgia in Postmenopausal Breast Cancer Survivors: A Pilot Study

Chao Hsing Yeh, RN, PhD, Wei-Chun Lin, MD, MS, Lorna Kwai-Ping Suen, RN, MPH, PhD, Na-Jin Park, RN, PhD, Lisa J. Wood, RN, PhD, G.J. van Londen, MD, MS, and Dana Howard Bovbjerg, PhD

Yeh is an associate professor in the School of Nursing at Johns Hopkins University in Baltimore, MD; Lin is a project director in the School of Nursing at the University of Pittsburgh in Pennsylvania; Suen is an associate professor in the School of Nursing at Hong Kong Polytechnic University; Park is an assistant professor in the School of Nursing at the University of Pittsburgh; Wood is the Amelia Peabody professor of nursing research at the MGH Institute of Health Professions in Charlestown, MA; van Londen is an assistant professor in the School of Medicine at the University of Pittsburgh; and Bovbjerg is director of the Biobehavioral Oncology Program at the University of Pittsburgh Cancer Institute and Hillman Cancer Center.

This research was funded by a grant to Yeh from the American Cancer Society (124638-PEP-13-237-01-PCSM). Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Oncology Nursing Society.

Yeh, Suen, van Londen, and Bovbjerg contributed to the conceptualization and design. Yeh, Lin, and Park completed the data collection. Yeh and Lin provided statistical support. Yeh, Lin, van Londen, and Bovbjerg provided the analysis. All authors contributed to the manuscript preparation.

Yeh can be reached at cyeh13@jhu.edu, with copy to editor at ONFEditor@ons.org.

Submitted July 2016. Accepted for publication November 10, 2016.

Keywords: acupressure; aromatase inhibitor–induced arthralgia; breast cancer survivors

Purpose/Objectives: To assess the feasibility of auricular point acupressure to manage aromatase inhibitor–induced arthralgia.

Design: Wait list control design.

Setting: Outpatient clinics and oncology center.

Sample: 20 women with aromatase inhibitor–induced arthralgia.

Methods: After baseline data were collected, participants waited one month before they received acupressure once per week for four weeks at a convenient time. The baseline data served as the control comparison. Self-reported measures and blood samples were obtained at baseline, at preintervention, weekly during the intervention, and at post-intervention.

Main Research Variables: The primary outcomes included pain intensity, pain interference, stiffness, and physical function. Inflammatory cytokines and chemokines were tested.

Findings: After the four-week intervention, participants reported decreases in worst pain and pain interference, and improvements in physical function, cancer-related symptom severity, and interference. The proinflammatory cytokines and chemokines displayed a trend of a mean percentage reduction. The anti-inflammatory cytokine interleukin-13 increased from pre- to postintervention.

Conclusions: Auricular point acupressure is feasible and may be effective in managing arthralgia in breast cancer survivors.

Implications for Nursing: Nurses can administer acupressure in clinical settings, which could enhance the management of aromatase inhibitor–induced arthralgia and contribute to a shift from traditional disease-based biomedical models to a broader, integrative, medical paradigm for managing aromatase inhibitor–induced arthralgia.

Aromatase inhibitor (AI) therapy has become an important standard of care for postmenopausal breast cancer survivors (PBCS) (Early Breast Cancer Trialists’ Collaborative Group, 2015). Adherence to this adjuvant endocrine therapy is an essential part of the multimodality treatment regimen of hormone-responsive breast cancer (Burstein et al., 2014; Hershman et al., 2010, 2011); however, adherence is challenging for patients because AI therapy requires daily use of an oral medication that must be continued for five years or longer (Hershman et al., 2010, 2011; Murphy, Bartholomew, Carpenter, Bluthmann, & Vernon, 2012). AI-induced arthralgia (AIA), particularly its high pain intensity, is a major challenge for optimal adherence to AI therapy (Hershman et al., 2010, 2011; Hershman, Loprinzi, & Schneider, 2015) and contributes to a 20%–50% rate of premature discontinuation (Henry et al., 2008, 2012; Howell et al., 2005; Mao et al., 2009; Presant et al., 2007). No effective