Acupressure for Nausea: Results of a Pilot Study

Suzanne L. Dibble, RN, DNSc, Jnani Chapman, BSN, RN, Kayee Alice Mack, BS, RN, and Ai-Shan Shih, MS, RN

Purpose/Objectives: To compare differences in nausea experience and intensity in women undergoing chemotherapy for breast cancer between those receiving usual care plus acupressure training and treatment and those receiving only usual care.

Design: Single-cycle, randomized clinical trial.

Setting: Outpatient oncology clinic in a major teaching medical center and a private outpatient oncology practice.

Sample: Seventeen women participated in the study. The typical participant was 49.5 years old (SD = 6.0), Caucasian (59%), not married/partnered (76%), on disability (53%), born a U.S. citizen (76%), and heterosexual (88%); lived alone (59%); had at least graduated from high school (100%); and had an annual personal income of $50,000 or greater (65%).

Methods: The intervention included finger acupressure bilaterally at P6 and ST36, acupressure points located on the forearm and by the knee. Baseline and poststudy questionnaires plus a daily log were used to collect data.

Main Research Variables: Nausea experience measured by the Rhodes Inventory of Nausea, Vomiting, and Retching and nausea intensity.

Findings: Significant differences existed between the two groups in regard to nausea experience ($p < 0.01$) and nausea intensity ($p < 0.04$) during the first 10 days of the chemotherapy cycle, with the acupressure group reporting less intensity and experience of nausea.

Conclusions: Finger acupressure may decrease nausea among women undergoing chemotherapy for breast cancer.

Implications for Nursing Practice: This study must be replicated prior to advising patients about the efficacy of acupressure for the treatment of nausea.

Key Points . . .

- Despite the development of more effective antiemetics, nausea remains a significant problem for those receiving chemotherapy.
- Acupressure is easy to apply and learn, but conflicting evidence exists regarding its effectiveness in relieving chemotherapy-induced nausea.
- Study results indicate acupressure may be effective in relieving chemotherapy-induced nausea, but replication studies are warranted.

In 1999, an estimated 175,000 women in the United States were diagnosed with breast cancer and 43,300 women died as a result of this disease (Landis, Murray, Bolden, & Wingo, 1999). Many of these women received chemotherapy to treat their disease. Two of the major chemotherapy treatments are a combination of cyclophosphamide, methotrexate, and fluorouracil (CMF) and a regimen containing doxorubicin. Nausea is a significant side effect of these regimens (Greene, Nail, Fieler, Dudgeon, & Jones, 1994). Patients identify nausea as contributing to their reluctance to begin chemotherapy, and nausea can cause patients to discontinue potentially effective treatment strategies (Rhodes & McDaniel, 1997).

Nausea has been defined as a subjective phenomenon of an unpleasant sensation in the epigastrium and in the back of the throat that may or may not culminate in vomiting (Rhodes & McDaniel, 1997). The major mechanisms of chemotherapy-induced nausea fall into three categories: chemical, visceral, and central nervous system. The chemical mechanism of nausea may be a direct result of the action of the chemotherapy on the chemoreceptor trigger zone located in the brain (Fessele, 1996). The visceral mechanism of nausea in women undergoing chemotherapy may be the result of stomach irritation caused by oral drug therapy (cyclophosphamide) or indirectly by the effects of physical and emotional stressors on gastric acid secretion (Fessele). Both psychological and physiologic changes in the central nervous system under the influence of chemotherapy may contribute to nausea. The psychological factors resulting in nausea relate primarily to the experience of anxiety (Fessele). Women who have higher anxiety levels report more nausea (Zook & Yasko, 1983).

Suzanne L. Dibble, RN, DNSc, is an adjunct professor at the Institute for Health and Aging at the University of California, San Francisco; Jnani Chapman, BSN, RN, is a stress management specialist at the Breast Cancer Personal Support and Lifestyle Integration Program in San Francisco; Kayee Alice Mack, BS, RN, is a graduate student and Ai-Shan Shih, MS, RN, is a doctoral student, both in the Department of Physiological Nursing at the University of California, San Francisco. *Support for this study was received from the Research Center for Symptom Management (P30-NR03927). (Submitted December 1998. Accepted for publication August 2, 1999.)*