Acupressure for Chemotherapy-Induced Nausea and Vomiting: A Randomized Clinical Trial

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Purpose/Objectives: To compare differences in chemotherapy-induced nausea and vomiting (CINV) among three groups of women (acupressure, placebo acupressure, and usual care) undergoing chemotherapy for breast cancer.

Design: A multicenter, longitudinal, randomized clinical trial throughout one cycle of chemotherapy.

Setting: Ten community clinical oncology programs associated with the University of Texas M.D. Anderson Cancer Center and nine independent sites located throughout the United States.

Sample: 160 women who were beginning their second or third cycle of chemotherapy for breast cancer treatment and had moderate nausea intensity scores with their previous cycles.

Methods: Subjects were randomized to one of three groups: acupressure to P6 point (active), acupressure to SI3 point (placebo), or usual care only. Subjects in the acupressure group were taught to apply an acupressure wrist device by research assistants who were unaware of the active acupressure point. All subjects completed a daily log for 21 days containing measures of nausea and vomiting and recording methods (including antiemetics and acupressure) used to control these symptoms.

Main Research Variables: Acute and delayed nausea and vomiting.

Results: No significant differences existed in the demographic, disease, or treatment variables among the treatment groups. No significant differences were found in acute nausea or emesis by treatment group. With delayed nausea and vomiting, the acupressure group had a statistically significant reduction in the amount of vomiting and the intensity of nausea over time when compared with the placebo and usual-care groups. No significant differences were found between the placebo and usual-care groups in delayed nausea or vomiting.

Conclusions: Acupressure at the P6 point is a value-added technique in addition to pharmaceutical management for women undergoing treatment for breast cancer to reduce the amount and intensity of delayed CINV.

Implications for Nursing: Acupressure is a safe and effective tool for managing delayed CINV and should be offered to women undergoing chemotherapy for breast cancer.

Key Points . . .

- Nausea, especially delayed nausea, continues to be a problem for many women undergoing chemotherapy for breast cancer.
- The amount and intensity of nausea are greater among younger women.
- A numeric rating scale is an appropriate daily measure of delayed nausea.

In 2007, an estimated 178,480 women in the United States are expected to be diagnosed with breast cancer (American Cancer Society, 2007). Many women are treated with moderate to highly emetogenic chemotherapy, including doxorubicin and cyclophosphamide with or without 5-fluorouracil. Despite recent pharmaceutical advances in the prevention and treatment of chemotherapy-induced nausea and vomiting (CINV), many patients continue to experience significant delayed nausea and some vomiting. Nausea and vomiting have been identified as contributing to patients' reluctance to begin chemotherapy and may result in the discontinuation of potentially effective treatment strategies (Carr et al., 1985; Dibble, Casey, Nussey, Israel, & Luce, 2004; Dibble, Israel, Nussey, Casey, & Luce, 2003; Rhodes & McDaniel, 1997).

Small studies of acupressure (Dibble, Chapman, Mack, & Shih, 2000; Dundee & Yang, 1990; Stannard, 1989) have suggested that pressure on the *nei guan* (P6) points may be an effective method to reduce CINV in women undergoing chemotherapy. Some of the studies were cited in a recent Cochrane review (Ezzo et al., 2006) that supported the use of acupressure at P6 for nausea control.

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