## Oral Intake of Ginger for Chemotherapy-Induced Nausea and Vomiting **Among Women With Breast Cancer**

Müzeyyen Arslan, RN, MSc, PhD, and Leyla Ozdemir, RN, MSc, PhD



Background: Chemotherapy-induced nausea and vomiting (CINV) is among the most common and distressing symptoms experienced by patients receiving cancer treatment. Nurses play a substantial role in the prevention and management of CINV. Ginger (Zingiber officinale Roscoe) is often advocated as beneficial for nausea and vomiting. Whether the herb is truly efficacious for this condition is, however, still a matter of debate.

Objectives: This experimental randomized, controlled trial was done to assess the effect of ginger on chemotherapy-related nausea and vomiting.

**Methods:** All patients in the study (N = 60) received standard antiemetic drugs. The patients in the study group (n = 30) also received oral ginger for the first three days of the chemotherapy cycle. No intervention was performed in the control group (n = 30) except for the routine antiemetic treatment. Nausea severity and the number of vomiting and retching episodes were measured four times each day for the first five days of the chemotherapy cycle in the patient diary. Nausea severity was evaluated using a numeric scale ranging from 0 (no nausea) to 10 (very severe nausea).

Findings: The researchers analyzed the five-day mean score of nausea severity and the number of vomiting and retching episodes. Based on this comparison, nausea severity and the number of vomiting episodes were significantly lower in the intervention group than in the control group (p < 0.05). However, the change in the number of retching episodes between the intervention and control groups was not statistically significant (p > 0.05).

Müzeyyen Arslan, RN, MSc, PhD, is an assistant professor and lecturer in the School of Nursing at Turgut Ozal University, and Leyla Ozdemir, RN, MSc, PhD, is an associate professor in the Faculty of Nursing at Hacettepe University, both in Ankara, Turkey. The authors take full responsibility for the content of the article. The authors did not receive honoraria for this work. The content of this article has been reviewed by independent peer reviewers to ensure that it is balanced, objective, and free from commercial bias. No financial relationships relevant to the content of this article have been disclosed by the authors, planners, independent peer reviewers, or editorial staff. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Clinical Journal of Oncology Nursing or the Oncology Nursing Society. Arslan can be reached at muzeyyen24@hotmail.com, with copy to the editor at CJONEditor@ons .org. (Submitted August 2014. Revision submitted November 2014. Accepted for publication December 14, 2014.)

Key words: chemotherapy; nausea and vomiting; breast cancer; ginger

Digital Object Identifier: 10.1188/15.CJON.E92-E97

reast cancer is the second major cause of cancerrelated mortality in women, after lung cancer (Youlden et al., 2012). Because of an increase in the occurrence of breast cancer, the prevention of complications from systemic chemotherapy administration, early detection of symptoms, and symptom control gradually have gained more significance. Although chemotherapyinduced nausea and vomiting (CINV) is the side effect most frequently reported by patients receiving breast cancer therapy, its severity and intensity vary among patients. CINV can be broadly categorized as acute (occurring within 24 hours of therapy), delayed (persisting for 6-7 days after therapy), or anticipatory (occurring prior to chemotherapy administration). The problems arising from CINV may include fluid and electrolyte imbalance, malnutrition, or delay of chemotherapy administration (Panahi et al., 2012; Rhodes & McDaniel, 2001). Despite the developments in pharmacologic treatment, 70%-87% of patients with breast cancer experience nausea and/or vomiting from chemotherapy (Cohen, de Moor, Eisenberg, Ming, & Hu, 2007; Lindley et al., 2005; Yap, Low, & Chan, 2012).

Patients frequently adopt complementary and alternative medicine (CAM) for CINV despite pharmacologic treatment.