

Self-Reported Comorbid Conditions and Medication Usage in Breast Cancer Survivors With and Without Lymphedema

Sheila H. Ridner, PhD, RN, and Mary S. Dietrich, PhD

Purpose/Objectives: To compare the self-reported comorbid conditions and medication usage between breast cancer survivors with and without breast cancer treatment-related lymphedema.

Design: Descriptive, cross-sectional.

Setting: A community-based study conducted in a major metropolitan area and surrounding rural counties in the southeastern United States.

Sample: A convenience sample of 64 breast cancer survivors with lymphedema and 64 breast cancer survivors without lymphedema who were age matched within three years and recruited for a parent study. Twenty-one additional nonage-matched breast cancer survivors with or without lymphedema also were included.

Methods: Self-reported survey instruments and height and weight measurement.

Main Research Variables: Lymphedema, demographic information, self-reported comorbid diseases or medical issues, and medication usage.

Findings: Breast cancer survivors with lymphedema experienced more comorbid conditions. Statistically significant group differences were found in body mass index, orthopedic issues, cardiac medications, hormone blockers, and osteoporosis medication or calcium supplement usage. Co-occurrence of diabetes and carpal tunnel syndrome approached statistical significance. Breast cancer survivors with lymphedema were older and had lower incomes.

Conclusions: Comorbid conditions may influence the development of breast cancer treatment-related lymphedema. Further research, particularly a longitudinal study, is indicated.

Implications for Nursing: Healthcare professionals who care for breast cancer survivors need to routinely assess them for the presence of comorbid conditions and the development of lymphedema. Obese breast cancer survivors may benefit from weight reduction interventions to possibly decrease their risk of developing lymphedema and improve their overall health status. Patients with arthritis and orthopedic and cardiac issues such as hypertension may warrant careful monitoring.

Since the earliest historic documentation of the removal of a breast and its surrounding structures in the second century (Lewison, 1955), many breast cancer survivors have experienced cancer treatment-related lymphedema (i.e., the collection of fluid and protein in the interstitial spaces) (Rockson, 2001). Breast cancer treatment-related lymphedema was documented in the surgical literature in 1898, when Heuter reported swelling of an arm after breast surgery (Matas, 1913). In 1908, Handley wrote that “brawny swelling” of the arm was one of the worst complications of breast cancer. In 2007, approximately 2.4 million breast cancer survivors

Key Points . . .

- ▶ Breast cancer survivors remain at risk for developing lymphedema throughout their lifetimes.
- ▶ Comorbid conditions may influence the development of lymphedema or patient symptom profiles.
- ▶ Participants with lymphedema had higher body mass index and more orthopedic issues and took more cardiac medications than those without the condition.
- ▶ Future research exploring comorbid conditions, their possible influence on the development of breast cancer treatment-related lymphedema, and the temporal patterns of such relationships is warranted.

were residing in the United States (National Cancer Institute, n.d.). Despite the development of breast-conserving surgical procedures and changes in axillary dissection techniques, current studies suggest that breast cancer survivors continue to be at risk for the development of lymphedema after treatment.

Studies have reported that 6%–40% of breast cancer survivors will develop cancer treatment-related lymphedema at some point during their lives (Armer, Fu, Wainstock, Zagar, & Jacobs, 2004; Petrek, Pressman, & Smith, 2000; Wilke et al., 2006). For example, a large prospective multicenter trial tracked arm circumference, with a 2 cm or more increase indicating lymphedema; the researchers found that 7% of those undergoing sentinel lymph node biopsies had lymphedema six months after the procedure (Wilke et al.). A second study using a 2 cm difference between the affected and unaffected limbs as the definition of lymphedema found that the condition occurred in

Sheila H. Ridner, PhD, RN, is an assistant professor and Mary S. Dietrich, PhD, is a research associate professor of nursing, both in the School of Nursing at Vanderbilt University in Nashville, TN. This research was funded by a National Research Service Award (1F31NR07854-02) and a Vanderbilt University School of Nursing Oncology Postdoctoral Fellowship. (Submitted January 2007. Accepted for publication May 12, 2007.)

Digital Object Identifier: 10.1188/08.ONF.57-63