Associations Between Cholecalciferol Supplementation and Self-Reported Symptoms Among Women With Metastatic Breast Cancer and Vitamin D Deficiency: A Pilot Study

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OBJECTIVES: To assess the potential effect of cholecalciferol supplementation to reduce symptom burden for women with metastatic breast cancer (MBC).

SAMPLE & SETTING: 11 clinically stable women with estrogen receptor–positive MBC were recruited from a single cancer center for this phase 1, nonrandomized study (NCT02186015).

METHODS & VARIABLES: Women with insufficient serum 25-hydroxyvitamin D (25(OH)D) levels qualified to receive high-dose repletion therapy. Clinical and questionnaire data on common symptoms and quality of life were obtained prior to and following supplementation.

RESULTS: Serum 25(OH)D increased significantly pre-versus postintervention. Trends for improvements in endocrine symptoms, bone pain, and fatigue were observed following the intervention.

IMPLICATIONS FOR NURSING: Women achieved normal serum 25(OH)D levels after eight weeks of supplementation and reported reduced symptom burden. Vitamin D may be a low-cost supportive care therapy; however, future studies should be considered.

KEYWORDS vitamin D; metastatic breast cancer; cholecalciferol; pilot study
