ONLINE EXCLUSIVE ARTICLE

Symptoms and Health-Related Quality of Life in Patients Receiving Cancer Therapy Matched to Genomic Profiles

Kirstin Williams, PhD, CNP, and Sandra Bergquist-Beringer, PhD, RN, CWCN

OBJECTIVES: To examine symptom occurrence and severity and overall health-related quality of life (HRQOL) in patients receiving cancer therapy guided by genomic profiling (matched therapy) and patients receiving nonmatched therapy.

SAMPLE & SETTING: A retrospective and secondary analysis of data from 129 individuals with breast or gynecologic cancer receiving care at a regional outpatient cancer center.

METHODS & VARIABLES: Descriptive statistics and multiple linear regression analyses were performed. Study variables included symptom occurrence and severity, HRQOL, and person- and health-/illness-related factors. Symptom occurrence and severity were measured by the Therapy-Related Symptom Checklist (TRSC), and HRQOL was measured by the HRQOL–Linear Analogue Self-Assessment.

RESULTS: Individuals receiving matched therapy had lower mean TRSC scores compared to individuals receiving nonmatched therapy, but the difference was not statistically significant. HRQOL scores among individuals receiving matched therapy were not significantly higher than those receiving nonmatched therapy. Individuals with higher TRSC scores had significantly lower HRQOL.

IMPLICATIONS FOR NURSING: The effects of matched therapy on an individual should be examined. Study findings are an initial step in understanding the symptom occurrence and severity and HRQOL.

KEYWORDS symptom severity; health-related quality of life; matched therapy; genomic profiling; cancer
***ONF, 45*(6), E125–E136.**
DOI 10.1188/18.ONF.E125-E136

Breast and gynecologic cancers comprise more than 375,000 of new cancer cases annually (American Cancer Society, 2018). Although advancements in screening and treatment have reduced death rates, a significant proportion of women will require long-term treatment for their cancer. Many physical and emotional symptoms are experienced throughout the cancer continuum, negatively affecting health-related quality of life (HRQOL) (Huang et al., 2017; Miaskowski et al., 2017). Identification of these symptoms is essential because their management can enhance HRQOL and lead to greater adherence to treatment and, therefore, improved efficacy (Smith, Sestak, Howell, Forbes, & Cuzick, 2017).

State-of-the-art cancer care includes personalizing strategies to treat an individual's cancer based on his or her unique genomic signature found by genomic profiling. Genomic profiling identifies the tumor-specific alterations in DNA and molecular pathways that can influence the development and progression of cancer and is increasingly being incorporated into routine clinical practice so that the therapies selected are more precise. Cancer treatment based on genomic profiling has been referred to as matched therapy (Schwaederle et al., 2016; Tsimberidou et al., 2012, 2014). Matched therapy is part of the broader precision medicine initiative, which considers individual variability in genes, environment, and lifestyle to customize the treatment for each person. The use of precision medicine is most advanced in the treatment of cancer (U.S. Food and Drug Administration, 2017). Matched therapy often includes the use of targeted therapies, which are drugs that block the growth and/or spread of cancer by interfering with specific molecules involved in the growth and/or spread of cancer (National Cancer Institute, 2018). Targeted therapies have unique side effect profiles compared to chemotherapy, including dermatologic, endocrine, vascular,