Nutrition indicators, physical function, and health-related quality of life in breast cancer patients

ABSTRACT

Objective: This study aimed to investigate how nutrition indicators and physical function may influence Health-related Quality of Life (HRQoL) of breast cancer patients undergoing treatment. Methods: This was a cross sectional study among a total of 163 breast cancer patients. Series of measurements including anthropometry, biochemical, and dietary were employed to assess patients' nutritional status while physical function was assessed by handgrip strength. HRQoL of patients was determined using European Organization for Research and Treatment of Cancer quality of life questionnaire Core 30 (EORTC-QLQ-C30) version 3.0. Multiple linear regression was used to identify factors associated with HRQoL. Results: Breast cancer patients perceived moderately their overall quality of life (QoL), with the mean global health status (GHS) score of 69.12. Emotional functioning was the poorest functional scale while fatigue was the most distressing symptom presented by the patients. Approximately 20% of patients had low corrected arm muscle area while more than half had low hemoglobin level. More than 90% of patients did not meet the overall dietary recommendation and had poor handgrip strength. Mid-upper arm circumference (MUAC) was associated with GHS (β: 0.906; 95% CI: 0.22, 1.56) and cognitive functioning (β: -1.543; 95% CI: -3.07, -0.01). Handgrip strength was positively associated with most of HRQoL outcomes. Conclusions: Breast cancer patients reported overall good nutritional status and moderate QoL during treatment. Being well-nourished improved HRQoL and handgrip strength could be a potential proxy for functional outcomes as well as overall QoL.

Keyword: Breast cancer; Handgrip strength; Health-related quality of life; Nutritional status