

Association Between Nutritional Status and Quality of Life Among Cancer Patients in the Ratnapura Area

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Cancer is a complex global health challenge and the second leading cause of death worldwide. Malnutrition is prevalent among cancer patients and reduces quality of life (QoL). However, in Sri Lanka, limited studies have been conducted to assess nutritional status and QoL to improve patient care strategies in oncology settings. This study aims to determine the relationship between nutritional status and QoL among cancer patients at the Teaching Hospital (TH) Ratnapura. This descriptive cross-sectional study was conducted in the TH Ratnapura. A total of 200 cancer patients were randomly selected from those admitted to the Oncology Wards and those attending the Oncology Clinic, based on inclusion and exclusion criteria. Nutritional status was assessed using the validated PG-SGA SF, while QoL was measured using the validated EORTC QLQ-C30. Socio-demographic data were collected through a pre-tested general questionnaire, and dietary intake was assessed using a 24-hour dietary recall. All questionnaires were administered by trained interviewers. Data were analyzed using the standard scoring manual, descriptive statistics and ANOVA. The relationship between QoL domains and nutritional status was determined using the Chi-square test. Of the 200 participants, 67% were female and the mean age was 58.91 ($\pm$ 12.36). Among the 11 types of cancers, the most prevalent was breast cancer (30.0%), followed by gastrointestinal cancers (23.0%) and head and neck tumors (21.0%). Based on PG-SGA SF, 47% were severely malnourished (SM), 27% moderately malnourished, and 26% well-nourished. Gastrointestinal (13.5%), head and neck (11.0%), and breast cancers (10.0%) were the most common cancer types among SM patients. The dietary data showed that intake across all food groups was below the recommended servings among SM patients. The mean global QoL score was 55.1 $\pm$ 19.2, below the reference value ($>$ 61.3), indicating impaired QoL. All the dimensions of the functioning scale and the symptoms scale had low and high mean scores, respectively indicating poor QoL. The association between the overall QoL and different nutritional stages ($p < 0.001$) and all the dimensions of the functional scale and symptoms scale except diarrhea ($p < 0.05$) were statistically significant. ANOVA results indicated significant differences across nutritional status groups for all QoL scores ($p < 0.05$). The study reveals a high prevalence of malnutrition among cancer patients and its strong significant association with poor QoL. The findings emphasize the need for routine nutritional assessment and targeted interventions in oncology care to enhance patient well-being, QoL, and clinical outcomes. They also highlight the important role of policymakers in strengthening nutrition services to improve patient outcomes in Sri Lanka.

Keywords: Cancer, nutritional status, QOL, PG-SGA SF, EORTC QLQ-C30