

NUTRITIONAL ASSESSMENT OF CANCER PATIENTS IN OUTPATIENT CARE

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ABSTRACT: = The objective was to analyze the nutritional aspect of cancer patients in outpatient care in Joaçaba-SC. Cross-sectional study using global subjective assessment by the patient and the food consumption questionnaire of the Brazilian Health Department. Seventy patients participated with a mean age of 60.3±13.9 years, 38 (54.3%) men, 57 (81.4%) without nutritional monitoring, 48 (68.6%) with a regular diet, 16 (22.9%) appropriate diet and (8.6%) good diet. Smoking was associated with lung and oropharyngeal cancer and meat consumption with bowel cancer. The weight reduction was high, as 36 (52.2%) lost more than 5% of their body weight. Well-nourished people lost less weight when compared to malnourished individuals, accepted the diet better and had less food complaints. In total, 58 individuals (83%) were malnourished, all of them in the advanced stage of the disease. The prevalence of malnourishment was high in this study. Effective monitoring strategies need to be implemented with a multiprofessional team to improve the nutritional treatment in this population.

DESCRIPTORS: Malnutrition; Oncology; Nutrition assessment; Food service, hospital; Nutrition for vulnerable groups.

AVALIAÇÃO NUTRICIONAL DE PACIENTES COM CÂNCER EM ATENDIMENTO AMBULATORIAL

RESUMO: Objetivou-se analisar o aspecto nutricional de pacientes oncológicos em atendimento ambulatorial, em Joaçaba-SC. Estudo transversal, que utilizou a avaliação subjetiva global produzida pelo paciente e questionário de consumo alimentar, do Ministério da Saúde. Participaram 70 pacientes, idade média 60,3±13,9 anos, 38 (54,3%) homens, 57 (81,4%) sem acompanhamento nutricional, 48 (68,6%) com alimentação regular, 16 (22,9%) alimentação adequada e seis (8,6%) boa alimentação. O fumo teve associação com câncer de pulmão e orofaringe e o consumo de carne com câncer de intestino. A redução de peso foi elevada, 36 (52,2%) reduziram mais de 5% do peso corporal. Pessoas bem nutridas reduziram menos o peso comparado às desnutridas, tiveram melhor aceitação da dieta e menos queixas alimentares. Desnutridos totalizaram 58 indivíduos (83%), todos em estágio avançado da doença. A desnutrição teve elevada prevalência neste estudo, devendo ser implantadas estratégias de acompanhamento eficazes com equipe multiprofissional para melhorar o tratamento nutricional desta população.

DESCRIPTORIOS: Desnutrição; Oncologia; Avaliação nutricional; Serviço hospitalar de nutrição; Nutrição de grupos de risco.

EVALUACIÓN NUTRICIONAL DE PACIENTES CON CÁNCER EN ATENCIÓN AMBULATORIA

RESUMEN: La finalidad fue analizar el aspecto nutricional de pacientes oncológicos en atención ambulatoria en Joaçaba-SC. Estudio transversal, que utilizó la evaluación subjetiva global producida por el paciente y cuestionario de consumo alimentario del Ministerio de la Salud brasileño. Participaron 70 pacientes, promedio de edad 60,3±13,9 años, 38 (54,3%) hombres, 57 (81,4%) sin seguimiento nutricional, 48 (68,6%) con alimentación regular, 16 (22,9%) alimentación adecuada y seis (8,6%) buena alimentación. El humo estaba asociado al cáncer de pulmón y faringe inferior y el consumo de carne con cáncer intestinal. La reducción de peso fue alta, 36 (52,2%) redujeron más del 5% del peso corporal. Personas bien nutridas redujeron menos el peso comparado a las desnutridas, aceptaron mejor la dieta y tuvieron menos quejas alimentarias. Desnutridos totalizaron 58 individuos (83%), todos en estado avanzado de la enfermedad. La prevalencia de la desnutrición fue alta en este estudio. Deben ser implantadas estrategias de seguimiento eficaces con equipo multiprofesional para mejorar el tratamiento nutricional de esta población.

DESCRIPTORIOS: Desnutrición; Oncología; Evaluación nutricional; Servicio de alimentación en hospital; Nutrición de los grupos de riesgo.

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● INTRODUCTION

Cancer is a highly incident disease. Until 2030, the number of new cases is estimated at 21.4 million, and the number of deaths at 13.2 million⁽¹⁾. The presence of this disease causes great social impact, affecting the physical and psychological well-being of the patients, significantly influencing their nutritional status and quality of life⁽²⁾.

The reduction of body weight and malnutrition are considered the main nutritional disorders in cancer patients, due to the increase in energy and nutrients demanded by the tumor, metabolic changes caused by neoplastic disease and due to the treatment, such as previous surgeries, chemotherapy and / or radiotherapy⁽³⁻⁴⁾. It is considered that up to 30% of adult oncology patients present weight reduction greater than 10%⁽⁵⁾, influencing the response to treatment, quality of life, and increasing morbidity and mortality rates, hospitalization time and hospital cost⁽⁶⁾.

Evaluating the nutritional status of cancer patients is extremely important. This should be done at the beginning and throughout the treatment, allowing the identification of patients at nutritional risk, as well as those with some degree of malnutrition. This early detection facilitates health interventions. It should be emphasized that the combination of nutritional assessment methods is necessary for clinical and dietary therapy, and should include the following indicators: weight reduction, reduction of food intake, symptoms with nutritional impact, loss of muscle mass and subcutaneous fat mass, and functional capacity. Isolated parameters of nutritional risk, such as percentage of weight loss, disease location, gastrointestinal tract symptoms and percentage of food intake are also useful during nutritional care for cancer patients⁽⁷⁾.

The performance of food and nutritional education activities are important for the development of the patient's autonomy, recovery and maintenance of their nutritional status. The objective of this study was to evaluate the nutritional profile of cancer patients attended at the outpatient clinic of a University Hospital in the Midwest of Santa Catarina.

● METHOD

A cross-sectional study was carried out with patients of both sexes, attended at the oncology clinic of the Santa Terezinha University Hospital between October and November 2016. The inclusion criteria were: a) age 18 years or older; b) being on outpatient cancer treatment at the study hospital; c) being diagnosed with head / neck, gastrointestinal or lung cancer. Patients without physical and / or mental conditions to answer the questionnaire were excluded.

The nutritional status was evaluated using objective and subjective methods, and the weight (in kilograms) and height (in meters) were collected directly from the medical record for the anthropometric evaluation. The body mass index (BMI, kg/m²) was calculated and classified according to cut-off points proposed by the World Health Organization (WHO). The Patient-Generated Subjective Global Assessment (PG-SGA) was used as a subjective nutritional assessment method and was applied in a private room on the day of the outpatient care, by the researchers, trained by a nutritionist. At the end, the patients were classified as: A = well-nourished; B = moderately malnourished or suspected of malnutrition and C = severely malnourished. The PG-SGA has been used as a method of choice to analyze the presence of malnutrition among cancer patients, being validated specifically for this population⁽⁸⁾.

As a complementary method to evaluate the patients' nutrition, the food consumption questionnaire of the Ministry of Health⁽⁹⁾ was used, which evaluates the current diet and estimates absolute or relative levels of energy intake and nutrients offered. The advantage of this questionnaire is the rapid application and the immediate recall period, conditions that predispose to greater participation. One of the limitations is the memory for identification and quantification of the portion sizes, critical determinants of the information quality.

The comparison of quantitative variables between groups was performed by Student's t-test (two groups) or ANOVA (three or more groups). The association of quantitative variables was performed

using Pearson's correlation coefficient. Categorical data crossings were analyzed by the Chi-square test. Significance was set at 95%. Data were analyzed using the Statistical Package for the Social Sciences 21.0 program.

Approval for the research was obtained from the Ethics and Research Committee of Universidade do Oeste de Santa Catarina, opinion 1.592.486.

● RESULTS

The study participants were 70 patients undergoing treatment at the oncology outpatient clinic of the Santa Terezinha University Hospital, mean age 63.2 years (± 17.0), 54.3% (38) male, 85.7% (60) undergoing chemotherapy treatment, 18.6% (13) radiotherapy and 55.7% (39) surgical removal of the tumor, 47.1% (33) with metastasis and 18.6% (13) with relapse.

Regarding nutritional treatment, 81.4% (57) reported no nutritional monitoring with a nutritionist, 57.1% (40) no nutritional therapy and 62.9% (44) reported that they had never had a prescription to use nutritional therapy.

Analyzing the food consumption questionnaire, 22.9% (16) scored below 28, considered poor diet; 68.6% (48) between 29 and 42, considered regular diet; and 8.6% (six) higher than 43, considered a good or appropriate diet. Men scored worse than women ($p = 0.05$).

Of the patients, 28.6% (20) were smokers, nine (45%) of whom had mild nicotine dependence, six (30%) moderate and five (25%) severe dependence. Smoking was significantly associated with lung ($r = 0.2$, $p = 0.03$) and oropharyngeal cancer ($r = 0.2$, $p = 0.05$) and meat consumption was associated with bowel cancer ($p = 0.01$). The chance of developing lung cancer (OR = 3.8) and oropharyngeal cancer (OR = 6) was higher among smokers, and the chance of developing bowel cancer was also higher among people who consume meat (OR = 4.4).

Those who rarely or never eat sausages and fried foods had less metastasis ($p = 0.15$), less relapse ($p = 0.91$) and used less food supplements ($p = 0.91$), and also had fewer cases of esophageal ($p = 0.59$), oropharyngeal ($p = 0.24$) and lung cancer ($p = 0.38$), but the associations were not significant.

The percentage of weight reduction varied from 0 to 40%, and 52.2% (36) reduced more than 5% of body weight since the beginning of treatment. Women showed a higher percentage of weight reduction than men ($p = 0.03$).

Oncological patients considered well nourished according to the PG-SGA had a lower percentage of weight reduction than malnourished patients ($p = 0.00$). Malnourished patients had worse acceptance of meat, beans, rice, vegetables and fruits.

Patients were considered malnourished when classified with PG-SGA B or C, corresponding to 58 individuals (83%), while 12 individuals (17%) with PG-SGA A were considered well-nourished. Nutritional status (well-nourished / malnourished) was not related with the type of tumor ($p = 0.73$), although patients with gastrointestinal cancer were the majority in the malnourished group. People in stage 4 are more malnourished than the others ($p = 0.03$).

Table 1 - Anthropometric variables and relation with nutritional status. Joaçaba, SC, Brazil, 2016

Variables	Total n=70	Well-nourished n=12	Malnourished n=58	p
Age	60.3 \pm 13.9	58.0 \pm 16.4	61.3 \pm 13.2	0.45
BMI	23.7 \pm 5.4	25.8 (4.1)	23.2 (5.6)	0.16
Weight	67.2 \pm 15.8	75.8 (12.8)	64.8 (15.4)	0.01
Sex Male	38	10	28	0
Female	32	2	30	
Arm circumference	35.0 \pm 16.6	33.9 (3.8)	35.4 (18.30)	0.77

As a cause of their bad diet, 15 patients mentioned nausea (21.4%), four indicated that they did not feel the taste of the foods (5.7%), four people had a dry mouth (5.7%), four people mentioned they were not hungry (5.7%), three suffered from diarrhea (4.3%) and three from vomiting (4.3%). Well-nourished people did not indicate any complaint or difficulty to eat ($p=0.03$).

● DISCUSSION

Studies about the impact of cancer on the nutritional status have already shown that the disease is a frequent cause of malnutrition, and that about 80% of the patients already present malnutrition at the time of diagnosis, which contributes to the increase in morbidity and mortality associated with the disease⁽¹⁰⁻¹¹⁾. In this study, 81.4% of the patients are not under nutritional monitoring, and it is known that this care by a specialized professional improves the disease prognosis⁽¹²⁾.

Analyzing the responses of the food consumption questionnaire, we observed that most patients are not eating appropriate food, especially men. It is estimated that about 70% of cancer patients have difficulties related to food consumption⁽¹³⁾, and more than half require nutritional intervention⁽¹⁴⁾. Throughout the treatment, many patients present weight loss, anorexia and nutrient deficit. This aggravates their clinical condition and can evolve into severe protein-calorie malnutrition. Nutritional intervention improves homeostasis and metabolic and oxidative stress⁽⁶⁾.

Associations between smoking and lung and oropharyngeal cancer, and between meat consumption and bowel cancer have been widely discussed in the literature and were also found in this study. It is known that cigarette smoking is responsible for about 90% of lung tumors and that the degree of nicotine dependence is related to the age of onset of cigarette smoking. The earlier the age of onset, the greater the probability of becoming dependent on nicotine⁽¹⁵⁾. Consumption of meat and sausages increases the risk of bowel cancer, and processed meat is a risk factor for bowel cancer recognized by the World Health Organization⁽¹⁾.

The percentage of weight reduction found in this study was expressive, mainly in women. Several factors interfere in the oncological patient's diet, such as chemotherapy use and the complications resulting from the treatment, such as nausea, dry mouth, mucositis, ageusia and altered taste of food^(8,16). Weight loss needs to be monitored and prevented, as malnutrition increases the risks of hospitalizations, complications and death^(8,17). It is known that malnutrition is a frequent complication in cancer patients, decreasing the response to antineoplastic treatments, reducing quality of life, increasing the risk of infections, hospitalization time and morbidity and mortality⁽⁸⁾.

Nutritional monitoring is essential for appropriate intervention involving these patients, and multiprofessional team monitoring should be introduced at the beginning of treatment, since it is a risk for malnutrition and cachexia⁽¹⁷⁾. The provision of nutrients in an individualized way is fundamental for the patient, aiming to promote favorable conditions, reducing the harmful effects of the disease, preventing and treating malnutrition, improving the therapeutic immune response, increasing survival and improving the patient's prognosis⁽¹⁷⁾.

In view of the above, it is important to evaluate the nutritional status, diagnosis and monitoring for appropriate and comprehensive nutritional and health interventions, with the objective of improving the relationship with food, helping to control symptoms, maintaining satisfactory hydration, preserving body weight and composition and improving the immune response, enhancing the recovery and preserving the cancer patients' quality of life⁽¹⁸⁻²⁰⁾.

The study limitations were related to the number of patients included in the study and the questionnaires that depend on the patient's memory about diet, which can impact the answers obtained. The results obtained in this study reinforce the importance of nutritional evaluation and monitoring in clinical practice though, as well as the monitoring of food intake among cancer patients, who are individuals vulnerable to malnutrition.

● CONCLUSION

This study showed a prevalence of men over 60 years of age on chemotherapy, without metastasis and without relapse. We observed that nutritional monitoring and the use of nutritional therapy are not part of the routine, and that, for most, nutritional therapy has never been prescribed. Smoking and meat consumption proved to be risk factors for oropharyngeal / lung and bowel cancer, respectively. The analysis of food consumption shows that the diet is inappropriate and that well-nourished people have lost less weight and have had fewer food complaints and better dietary acceptance.

The percentage of weight reduction is high, which compromises the quality of life and increases the risks associated with the disease, which could be prevented with proper multiprofessional team monitoring and nutritional treatment.

The evaluation of food consumption among cancer patients should be a routine, because food is an important part of the therapy, not only due to its nutritional aspects, but also for its symbolic and subjective dimension.

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