

Elderly with cancer in the preoperative period: data of quality of life, anxiety, and depression

Idosos com câncer no período pré-operatório: dados de qualidade de vida, ansiedade e depressão

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ABSTRACT

OBJECTIVE: To evaluate quality of life (QOL), anxiety, and depression in elderly people with cancer in the preoperative period at a referral hospital in oncology in Belém, Pará State, Brazil. **MATERIALS AND METHODS:** This is a cross-sectional study with 82 elderly patients with cancer who were hospitalized in the preoperative period at the Hospital Ophir Loyola, from April to September 2019. The instruments used in the data collection were: SF-36 Health Survey questionnaire, Beck Anxiety Inventory, and Beck Depression Inventory. **RESULTS:** In the assessment of QOL, considering the scores corresponding to the eight domains of the SF-36 questionnaire, the social aspects obtained the highest average. All participants had moderate (79.3%) or severe anxiety (20.7%). However, the majority (82.9%) did not present any degree of depression. **CONCLUSION:** Data of QOL, anxiety, and depression showed that it is essential to pay special attention to the subjectivities of the elderly, considering their health weaknesses.

Keywords: Elderly; Cancer; Quality of Life; Depression; Anxiety.

RESUMO

OBJETIVO: Avaliar dados da qualidade de vida (QV), a ansiedade e a depressão em idosos com câncer no período pré-operatório em um hospital de referência em oncologia de Belém, estado do Pará, Brasil. **MATERIAIS E MÉTODOS:** Trata-se de um estudo transversal, com 82 idosos com câncer que estavam internados em pré-operatório no Hospital Ophir Loyola, no período de abril a setembro de 2019. Os instrumentos utilizados na coleta de dados foram: questionário de qualidade de vida SF-36, Inventário Beck de Ansiedade e Inventário Beck de Depressão. **RESULTADOS:** Nos resultados para a avaliação da QV, considerando-se os scores correspondentes aos oito domínios do questionário SF-36, os aspectos sociais obtiveram a maior média. A totalidade dos participantes apresentou ansiedade moderada (79,3%) ou severa (20,7%). No entanto, a maioria (82,9%) não apresentou qualquer grau de depressão. **CONCLUSÃO:** Concluiu-se que os scores de QV, ansiedade e depressão mostraram que é imprescindível uma atenção especial às subjetividades de idosos, considerando suas fragilidades de saúde.

Palavras-chave: Idosos; Câncer; Qualidade de Vida; Depressão; Ansiedade.

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INTRODUCTION

The World Health Organization (WHO) emphasizes that cancer no longer needs to be a death sentence, as there are ways to reduce the burden of the disease and improve the survival and quality of life (QOL) of people with cancer¹.

Cancer is a chronic degenerative disease characterized by an abnormal and disordered growth of cells in the body, of multifactorial etiology and triggered by genetic alterations, lifestyle, and environmental factors¹. To Camarano and Kanso², the age above 60 is considered a risk factor for cancer; elderly people are 11 times more likely to develop cancer than young adults. The occurrence of about 600,000 new cancer cases in Brazil was estimated in 2018 and also in 2019³.

QOL is defined as a complex set of relationships between the domains of life, including physical and psychological health, level of independence, social relationships, personal beliefs, and the individual's relationship with the environment⁴. Cancer patients have significant changes in their QOL due to physical and emotional changes, directly interfering in the patient's conduct when undergoing surgical procedures⁵.

Lemos et al.⁶ demonstrated that the preoperative patient had increased catecholamines in the bloodstream, resulting in anxiety, blood pressure and heart rate changes. Thus, based on the patient's complaints, the assessment of anxiety can interfere with their QOL. For Polanski et al.⁷, anxiety and depression symptoms are related to the worse QOL of cancer patients, and anxiety is related to limitations experienced in this phase of the life cycle, often interpreted as threatening. Depression negatively impacts the health of the elderly, as it has multiple causes associated with different factors that interact and jointly induce the pathology, progressively decreasing their QOL⁸.

In Brazil, studies on the QOL of the elderly in different scenarios are scarce^{8,9,10}; therefore, there is an urgent need for attention from health professionals regarding the influence of aging on the QOL of individuals.

In this context, in older people affected by this pathology, attention and care are directed towards their needs and limitations. Thus, it is essential to adopt care practices based on the individual's biopsychosocial and spiritual well-being to provide a better QOL^{1,4}.

Thus, this study aimed to evaluate data on QOL, anxiety, and depression in elderly patients with cancer in the preoperative period at an oncology reference hospital in Belém, Pará State, Brazil.

MATERIALS AND METHODS

This is a quantitative and descriptive cross-sectional study carried out with elderly people in preoperative surgery hospitalized in the surgical clinics of Ophir Loyola Hospital (OLH) in Belém. The OLH has 53 cancer clinic beds, 48 cancer surgery beds, and pediatric oncology, chemotherapy, radiotherapy, and hematology care services.

In the present study, individuals aged 60 years or over, of both genders, diagnosed with cancer, admitted to one of the surgical clinics of the OLH, and who were in the preoperative period were included. Elderly individuals with a non-conclusive diagnosis of cancer, a cognitive deficit, or any mental disorder that made it difficult to provide information were excluded. The total number of study participants was 82.

DATA COLLECTION

Data collection took place from April to September 2019. Data on QOL, anxiety and depression were evaluated, and a questionnaire referring to sociodemographic and clinical data was applied to outline the participants' profiles. QOL was assessed using the SF-36 questionnaire (*Medical Outcomes Study 36-Item Short-Form Health Survey*)¹¹, which has eight domains: functional capacity, physical aspects, pain, general health, vitality, social aspects, emotional aspects, and mental health. The score for each domain ranges from 0 to 100. To assess anxiety and depression, the Beck Anxiety Inventory (BAI)¹² and the Beck Depression Inventory (BDI)¹³ were performed.

DATA ANALYSIS

Data were analyzed in the Statistical Package software for the Social Sciences (SPSS) v2.0. Sociodemographic and clinical variables were analyzed using descriptive statistics – absolute and relative frequency, mean, median and standard deviation (SD) – and the instruments were analyzed according to the rule established by Ciconelli et al.¹¹, Quintão et al.¹², and Gandini et al.¹³ for further descriptive statistical analysis. Cronbach's alpha coefficient was used to estimate the reliability of the questionnaires applied by analyzing the answers, showing an average correlation between the questions.

ETHICAL ASPECTS

The present study was approved by the Research Ethics Committee of Ophir Loyola Hospital, on April 4, 2019, under nº 3.244,884, following the Resolution 466/2012 of the Brazilian National Health Council. All study participants signed the Free and Informed Consent Form.

RESULTS

Of the 82 patients included in the study, 44 (53.7%) were male, and the majority (40; 48.8%) were aged between 61 and 70 years. People from the capital (Belém) were the majority (42; 51.2%); incomplete primary education (72; 87.8%) was the predominant education level; 49 (59.8%) were married; 61 (74.4%) declared themselves as Catholics; 60 (73.2%) were brown; and 49 (59.8%) were retired. A minimum wage was declared by most respondents (61; 74.4%) as the family income. As for the type of cancer, stomach cancer was the most frequent (14; 17.1%), followed by skin cancer (11; 13.4%) (Table 1).

The results of the QOL assessment are shown in table 2, in which the scores of the eight domains of the SF-36 questionnaire (functional capacity, physical aspects, pain, general health status, vitality, social

aspects, emotional aspects, and mental health) were presented.

The highest scores were obtained in the domains: social aspects, with a mean of 82.62 and SD = 18.92; mental health, with a mean of 75.61 and SD = 17.07; pain, with a mean of 69.60 and SD = 21.89; emotional aspects, with a mean of 69.51 and SD = 42.30. Cronbach's alpha ($\alpha = 0.88$) showed the reliability of the SF-36 QOL scale, proving that the questionnaire was accurate and consistent.

When analyzing the scores of the BAI, it was found that only 20.7% (17/82) had severe anxiety and the majority, 79.3% (65/82), had moderate anxiety. In contrast, the BDI showed that the majority, 82.9% (68/82), did not suffer from depression (Table 3). Cronbach's alpha showed that both the BAI ($\alpha = 0.91$) and the BDI ($\alpha = 0.91$) were accurate and consistent.

Participants diagnosed with anxiety and depression were provided with psychosocial support by the OLH team of specialized professionals.

DISCUSSION

This study evaluated data from elderly people in the preoperative period of cancer admitted to the OLH; but, as this is a non-probabilistic sample, the results must be analyzed with caution.

According to the Brazilian National Cancer Institute (INCA)³, cancer tends to affect both genders similarly in developed countries. Of the results obtained in this study, there was a predominance of males. Prostate cancer is the second most common type of cancer in men, followed by non-melanoma skin tumors, whose incidence in men, in 2018, was 70.42/100,000 in Brazil and 30.16/100,000 in the Brazilian Northern Region, with approximately 70% of its occurrences in developed countries. It is considered a type of cancer with the highest incidence in elderly people, as 75% of cases occur after 65 years of age³. The most prevalent cancer in this study was stomach cancer (17.1%), followed by skin (13.1%) and prostate cancer (9.8%). According to INCA estimates, in females, non-melanoma skin, breast, and cervical cancers are the most prevalent³.

The fact that the elderly come from the capital Belém, where exposure to polluting agents, environmental changes, and lifestyle (type of housing, access to quality diet, among others) can have direct implications for the development of the neoplasms presented by them^{14,15}, impacting the quality of life and health of these individuals.

Another important factor that may have significantly influenced the QOL of the elderly studied was the low education level. Husson et al.¹⁶ identified that low education level is associated with adverse health behaviors and worse standards of care, which leads the individual to a worse QOL. The individual's degree of knowledge is an essential factor for prophylaxis and awareness in cancer prevention¹⁷.

Table 1 – Demographic and socioeconomic characteristics of elderly people in the preoperative period, treated at the Ophir Loyola Hospital, from April to September 2019, in Belém, Pará, Brazil

Variables	Total	
	N = 82	%
Gender		
Female	38	46.3
Male	44	53.7
Age group (years)		
= 60	7	8.5
61–70	40	48.8
71–80	29	35.4
≥ 81	6	7.3
Education level		
Incomplete Elementary School	72	87.8
Complete Elementary School	6	7.3
Complete Higher Education	4	4.9
Marital status		
Single	11	13.4
Married	49	59.8
Live together	2	2.4
Widower	18	22.0
Separated	2	2.4
Religion		
Catholic	61	74.4
Evangelical	16	19.5
Spiritist	2	2.4
No religion	3	3.7
Origin		
Capital (Belém)	42	51.2
Inland of the state	40	48.8
Race		
White	15	18.3
Brown	60	73.2
Black	7	8.5
Family income (minimum wage)		
0	2	2.4
< 1	13	15.9
1	61	74.4
2 a 3	6	7.3
Occupation		
Farmer	6	7.3
Retiree	49	59.8
Freelancer	4	4.9
Seamstress	2	2.4
Unemployed	2	2.4
Housewife	10	12.2
Civil Servant	1	1.2
Pensioner	2	2.4
Fisherman	4	4.9
Transport	1	1.2
Security guard	1	1.2
Types of cancer		
Bladder	3	3.7
Colon	6	7.3
Esophagus	3	3.7
Stomach	14	17.1
Pharynx	4	4.9
Liver	2	2.4
Throat	1	1.2
Larynx	1	1.2
Breast	5	6.1
Eye	4	4.9
Skin	11	13.4
Penis	1	1.2
Vocal folds	1	1.2
Prostate	8	9.8
Lung	2	2.4
Rectum	4	4.9
Kidney	2	2.4
Sigmoid	1	1.2
Thyroid	6	7.3
Gallbladder	3	3.7

Table 2 – Data on QOL, by domain, obtained through the SF-36 questionnaire, of elderly people with cancer in the preoperative period, admitted to Ophir Loyola Hospital, from April to September 2019, in Belém, Pará, Brazil

Domains	Median	Minimum	Maximum	Mean	± DP
Functional capacity	80	0	100	68.96	± 27.83
Physical aspects	25	0	100	41.46	± 44.31
Pain	64	0	100	69.60	± 21.89
Overall health status	47	10	72	44.63	± 14.70
Vitality	70	15	100	65.55	± 18.64
Social aspects	88	25	100	82.62	± 18.92
Emotional aspects	100	0	100	69.51	± 42.30
Mental health	80	24	100	75.61	± 17.07

SD: Standard deviation.

Table 3 – Distribution of scores of the BAI and the BDI of elderly people in the preoperative period for cancer, admitted to Ophir Loyola Hospital, from April to September 2019, in Belém, Pará, Brazil

Scores	N = 82	%
Beck Anxiety Inventory		
Minimal degree of anxiety	–	–
Mild anxiety	–	–
Moderate anxiety	65	79.3
Severe anxiety	17	20.7
Beck Depression Inventory		
No depression	68	82.9
Mild depression	8	9.8
Moderate depression	5	6.1
Severe depression	1	1.2

Conventional sign used: – Numeric data equal to zero, not resulting from rounding.

It was identified that most participants were married or had a stable relationship, revealing that family support or the presence of a partner provides emotional, psychological, and social support to cancer patients; consequently, those who live alone are more susceptible to isolation and depression^{17,18}. Thus, the results of moderate anxiety and absence of depression found in this study confirm the importance of the presence and participation of family members.

Of the patients analyzed in this study, the majority declared to have some type of religion. According to some studies^{4,19,20}, religiosity plays an invaluable role in coping with the stages of the disease, as religious beliefs contributes to the reduction of levels of anxiety and depression during the treatment of cancer patients, improving their QOL. Considering that 96.3% of patients reported having a religion, the moderate anxiety and absence of depression found may result from this factor.

The elderly had low purchasing power, as the majority declared an income less than or equal to the minimum wage, a factor that directly influences their QOL, as it is related to the biopsychosocial

aspect. Even the retired elderly, who theoretically have financial autonomy, will not cover the costs of cancer treatment⁴.

According to the WHO, having QOL in old age corresponds to the highest level of health in the physical, social, psychological, and spiritual aspects¹. The application of the SF-36 instrument in this study made it possible to assess the QOL of elderly hospitalized at the OLH in preoperative conditions, and the domains with higher scores of QOL were: social aspects, mental health, pain, emotional aspects, functional capacity, and vitality, even if some of these patients have presented, concerning these domains, symptoms, feelings, behavioral profiles, and practice of physical activities.

The domains that deserve special attention, as they affect the QOL of the elderly evaluated, are overall health status and physical aspect. The first is probably caused by the incidence of various pathologies and chronic-degenerative diseases, in addition to the natural aging process itself; and the second, for preventing or limiting physical activity practices and adequate nutrition, which affects the biological/physiological aspect, causing stress and tension in the elderly²¹.

During this period of an elderly person's life, physical and psychosocial changes negatively affect their QOL and may evolve to the emergence of some psychological symptoms, such as irritability, anxiety, depression, and sexual dysfunction⁸. In the present study, regarding anxiety and depression, the predominant results were moderate anxiety and absence of depression.

In evaluating the data obtained for anxiety levels, it was observed that all patients had high levels, with the majority, 79.3%, classified as moderate anxiety and 20% as severe anxiety. Lemos et al.⁶, when investigating the association of the preoperative period of cancer patients and anxiety levels, found that preoperative anxiety is related to the patient's concerns about the disease, hospitalization, and types of surgeries since people diagnosed with cancer express anxiety for the fight to survive and an uncertain future²².

CONCLUSION

In this study, elderly people with cancer hospitalized for surgical intervention had a moderate QOL,

emphasizing social aspects. However, in the overall physical aspects of health, patients had low levels of QOL, and it is essential to pay special attention to the subjectivities of the elderly to improve this situation.

Anxiety levels were worrisome, and most elderly people did not experience any degree of depression, which may be beneficial for the patient in poor health.

Thus, this study contributed to the knowledge about social, physical, emotional, and mental health aspects of the elderly in the preoperative period of cancer surgery,

as it presents the need for more specialized health planning to improve the QOL of these patients.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest.

AUTHORS' CONTRIBUTION

The authors participated in all stages of drafting and reviewing the manuscript, from the study design to its preparation.



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