

Frequency of swallowing and food complaints during shared consultation in oncological palliative care

Frequência de queixas de deglutição e alimentação durante consulta compartilhada em cuidados paliativos oncológicos

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ABSTRACT

Purpose: to identify the frequency of swallowing and feeding complaints in cancer patients in palliative care, and to associate them with clinical and functional data. **Methods:** cross-sectional and descriptive study, carried out with cancer patients treated during shared consultation in a palliative care outpatient clinic, through speech-language pathology screening, protocols and scales, with statistical analysis of the obtained data. **Results:** Sample consisted of 52 subjects, seen during 8 months, with a mean age of 66.7 years, PSS (Palliative Performance Scale) a mean of 57.5. The topography of the most frequent neoplasm was the gastrointestinal tract and the treatment was surgery and associated chemotherapy and radiotherapy. Complaints identified at screening were categorized into swallowing and feeding. Thus, swallowing was the most frequent and a large part of the sample required a functional assessment of swallowing. Only the association between swallowing complaints and the topography of the gastrointestinal tract showed a significant statistical relationship. Swallowing complaints were more frequent in those undergoing radiotherapy and with lower percentages on the PSS scale. **Conclusion:** swallowing complaints were the most frequent and the associations made it possible to relate them to the location of the tumor, and to identify their frequency according to cancer treatment and terminal functional decline.

Keywords: Palliative care; Neoplasm; Swallowing; Feeding; Shared medical consultations

RESUMO

Objetivo: identificar a frequência de queixas de deglutição e alimentação em pacientes oncológicos em cuidados paliativos e associá-las com os dados clínicos e funcionais. **Métodos:** estudo transversal e descritivo, realizado com pacientes oncológicos atendidos durante consulta compartilhada em ambulatório de cuidados paliativos, por meio de triagem fonoaudiológica, protocolos e escalas, com análise estatística dos dados obtidos. **Resultados:** amostra constituída de 52 indivíduos, atendidos durante 8 meses, com média de idade de 66,7 anos, *Palliative Performance Scale* (PPS) média de 57,5. A topografia da neoplasia mais frequente foi trato gastrointestinal e o tratamento foi cirurgia, quimioterapia e radioterapia associadas. As queixas da triagem foram categorizadas em deglutição e alimentação. Dessa forma, as de deglutição foram as mais frequentes e grande parte da amostra necessitou de avaliação funcional da deglutição. Apenas a associação entre queixas de deglutição e a topografia de trato gastrointestinal apresentou relação estatisticamente significativa. As queixas de deglutição foram mais frequentes nos pacientes submetidos à radioterapia e com menores porcentagens na escala PPS. **Conclusão:** as queixas de deglutição foram as mais frequentes e as associações permitiram relacioná-las à localização do tumor e identificar sua frequência, conforme o tratamento oncológico e declínio funcional da terminalidade.

Palavras-chave: Cuidados paliativos; Neoplasia; Deglutição; Alimentação; Consultas médicas compartilhadas

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INTRODUCTION

Patients facing the advanced stage of a disease require greater attention, as they go through many changes such as physical, functional, psychological, emotional and spiritual, which impacts their quality of life as well that of their loved ones and family members who have to deal with the situation. For this reason standardized intervention is important, involving the family, informal caregivers, doctors, the health team and the patients themselves, to offer care focused on the patients requirements and support that provides them with comfort and a better quality of life⁽¹⁾.

According to the World Health Organization (WHO),

Palliative care is an approach that helps to improve the life quality of patients and their families that face problems associated with life-threatening conditions, through the prevention and relief of suffering, made possible by early identification, correct assessment and treatment of pain and other physical, psychosocial and spiritual problems^(1,3).

To achieve this professionals from different areas are needed to work as a team, prioritizing the division of responsibilities and results, with a shared vision of patient care strategies, through case discussion and therapeutic planning in the multidisciplinary team⁽²⁾. For outpatient it is recommended that such a team should comprise of a doctor, nurse, psychologist, physical therapist, speech-language pathologist, occupational therapist, nutritionist and social worker⁽³⁾.

Speech-language pathologists are the professionals who perform assessments and rehabilitation of the functions of hearing, cognition, oral and written communication, breathing, chewing and swallowing. They work in a multidisciplinary team with integral care of diseases, both in primary care and in specialized care, from the stage of diagnosis to before, during and after surgery and/or clinical treatment and through to functional rehabilitation⁽³⁾.

These functions have a great influence on the well-being of patients because they have a social character which is very important for coexistence in society. It is well known that patients who are facing the advance of a chronic disease and the consequences of its treatment, usually demonstrate swallowing and eating disorders, which further degrades their quality of life, but which can be reduced through evaluation and treatment and intervention by specialized professionals⁽⁴⁾.

There is a scarcity of studies that investigate the relationship of these functional changes with cancer in the palliative phase. The objective of this study was to identify the frequency of complaints related to swallowing and eating in cancer patients in palliative care during shared consultation, and to identify them with clinical and functional data.

METHODS

This study is classified as being descriptive and cross-sectional and was approved by the Research Ethics Committee of the Faculty of Ceilândia, University of Brasília under number 3,117,830. All participants or their guardians agreed to the research and signed a consent form (FICT).

Data collection was carried out at the Palliative Care Outpatient Clinic of the High Complexity Oncology Unit of the University Hospital of Brasília. A convenience sample was selected and all the patients seen during an eight-month period were invited to take part in the research. Participants over 18 years of age were included in the study. Participants who had problems with orientation or awareness when answering the questionnaire were excluded from the study sample.

In this outpatient clinic, patients undergo shared care by a team of medical professionals from different areas of medicine such as nursing, psychology, social work, nutrition and speech-language pathology, who manage and refer patients whilst discussing cases and exchanging experiences with each other. The criteria for admission to the service is the requirement to control symptoms due to the exhaustion of possibilities of curative cancer treatment, extensive neoplasia and/or the presence of metastasis.

The Palliative Performance Scale (PPS) was used, as adapted for Portuguese in 2008. The scale grades the functional status of the patient in palliative care in ten levels from 0 to 100%, through the observation of five dimensions, ambulation, evidence of the disease, self-care, intake and level of consciousness⁽⁵⁾.

Patients who suffered from any of the complaints were given guidance and those who had complaints related to swallowing, which predisposes them to a risk of Bronchoaspiration, underwent a functional swallowing assessment for consistency adjustments and safe eating routes, and were referred to speech-language pathology. Those who didn't have any complaints were included in the sample for comparison with the others. The examining team was trained to determine the conduct, according to the same reasoning, and according to the category of symptoms presented by each patient.

The Functional Oral Intake Scale (FOIS) was used to measure any impairments with eating after a functional assessment of swallowing, which is divided into seven levels, according to consistencies and the amount that the patient is safely able to eat, oral ingestion as follows. 1 (nothing by mouth), 2 (enteral diet and minimal oral attempt), 3 (consistent enteral and oral diet), 4 (total oral diet of a single consistency), 5 (oral diet of multiple consistencies with special preparation and compensations), 6 (oral diet without special preparation, but with specific food limitation) and 7 (unrestricted oral diet)^(6,7).

The data obtained through protocols and scales was entered into an excel spreadsheet and a descriptive analysis was performed using SPSS (Statistical Package of Social Sciences) in Windows 10.0, as well as the associations between the variables, by utilizing the Fisher's Exact Test, considering values less than or equal to 0.05 as statistically significant. All possible tests were carried out, in order to satisfy the research objectives.

RESULTS

Demographic data

The sample consisted of 52 participants with no predominance of gender. The average age was 66.7 years old, with a predominance of elderly people, when the criteria of 60 years of age or older was adopted, according to the classification of the Elderly Statute⁽⁸⁾. The group predominantly had a history of bad lifestyle habits such as smoking and drinking and forty

four percent of the participants studied died in the same year they were treated (Table 1).

Clinical data

The most frequent Palliative Performance Scale (PPS) score in the sample was 70, ranging from 20% to 90%, with an average of 57.5%. Most patients studied had some comorbidity issues associated with cancer, the most frequent being cardiovascular diseases, such as systemic arterial hypertension, and endocrine, metabolic and nutritional changes, such as diabetes mellitus. Concerning food, the vast majority of the sample exclusively ate orally (Table 2).

As for the topography of the primary neoplasm, the highest frequency was in the gastrointestinal tract (patients who had tumors of the esophagus, stomach, pancreas, intestine and rectum being included in this category), followed by lung, prostate and head and neck tumors (within this category nasal cavity, oropharynx and thyroid tumors). As for cancer treatment, the highest frequency was for individuals undergoing surgery, chemotherapy (CT) and radiotherapy (RT) or combined (Table 2).

The most frequent clinical stages were the most advanced of the disease, stage IV (secondary or metastatic tumor), followed by stage III (larger neoplasm, which can spread to surrounding tissues and/or lymph nodes), considering the numeric classification system⁽⁹⁾. (Table 2).

Speech-language pathology screening

For data analysis, patients' complaints were categorized as follows, 'swallowing complaints'. Those related to the dynamics of swallowing, such as choking and/or coughing, pain when swallowing, presence of mouth and throat sores, dry mouth, discomfort after eating (nausea/vomiting), difficulty/pain in opening the mouth, decreased opening of the mouth, difficulty in chewing and decreased taste and sensitivity. 'Eating

complaints'. Reduced appetite and/or lack of desire to eat were included (Table 3).

The most frequent category was swallowing, followed by eating, however, there were individuals who had complaints in both categories concomitantly. Twenty three percent of the sample underwent a functional swallowing assessment and the most frequent levels of the FOIS scale were 5 and 6, with a total oral diet with multiple consistencies, with and without the need for preparation or compensation, respectively^(6,7).

Association of complaints with clinical and functional variables

Associations were made between complaints and topographies, treatment, PPS and presence of comorbidity. Only the crossing of swallowing difficulties with the topography of the gastrointestinal tract showed a statistically significant value, however, all topographies presented some difficulty in swallowing (Table 4).

There was no significant association with the treatment modality, however, there was a predominance of swallowing complaints in irradiated patients, and those who underwent only RT or RT + QT present in all, and of those who had surgery + RT + QT, the vast majority reported this difficulty (Table 4).

For the association of the PPS data the scores obtained were categorized according to the guidelines of the study by

Table 1. Sociodemographic data

Variáble	Average	Min:Max	Median
Age	66.7	30:95	69.5
			Frequency
			n° (%)
Sex			
Feminine			27 (51.9)
Male			25 (48.1)
Age Group			
Elderly (≥60 years)			36 (69.2)
Adult (<60 years)			16 (30.8)
Habit			
No			22 (42.3)
Tobacco			16 (30.8)
Tobacco and alcohol			14 (26.9)
Death			
Yes			23 (44.2)
No			29 (55.8)
TOTAL			52 (100.0)

Legend: Min = minimum; Max = maximum; n° (%) = number of individuals (percentage)

Table 2. Clinical data

Variable	Average	Min:Max	Median
PPS	57.5	20:90	60
			Frequency
			n° (%)
Comorbidity			
Presence			29 (55.8)
Absence			23 (44.2)
Food			
Oral route			47 (90.4)
Enteral route			5 (9.6)
Topography			
Gastrointestinal tract			17 (32.7)
Lung			12 (23.1)
Prostate			9 (17.3)
Head and neck			5 (9.6)
Uterus			5 (9.6)
Breast			4 (7.7)
Treatment			
Surgery + QT + RT			18 (34.6)
QT			9 (17.3)
QT + RT			8 (15.4)
Surgery + QT			6 (11.5)
Surgery			4 (7.7)
RT			4 (7.7)
Did not perform			3 (5.8)
Staging			
IV			43 (82.7)
III			9 (17.3)
TOTAL			52 (100.0)

Subtitle: PPS = Palliative Performance Scale; Min = minimum; Max = maximum; n° (%) = number of individuals (percentage); QT = Chemotherapy; RT = Radiotherapy; IV = Stage 4; III = Stage 3

Morita et al.⁽¹⁰⁾, into 3 categories. Percentage of PPS from 10% to 20%, from 30% to 50%, greater than 60%. There was no statistically significant relationship between this scale and complaints, however, it is worth noting that all patients with PPS between 10 and 20 and that the vast majority with PPS between 30 and 50 suffered from some sort of swallowing complaint⁽¹⁰⁾.

DISCUSSION

This study investigated 52 patients in palliative care, mostly elderly who had multiple comorbidities and a history of risky

habits for neoplasia, the most frequent topography being the gastrointestinal tract in more advanced stages. The vast majority ate orally and the most frequent complaints in the screening were related to swallowing, with a statistically significant association for gastrointestinal tract tumors, with higher frequency in patients undergoing only radiotherapy and combined treatment, and with lower percentages on the PPS scale.

The predominance of elderly people among the individuals studied (69.2%) can be explained by risk factors for cancer associated with senescence, such as longer exposure to the sun, environmental pollution, consumption of alcohol and tobacco, inadequate eating habits, infections and aging of the immune system, added to late diagnosis either due to the lower adherence of the elderly to diagnosis and intensive treatments, or due to the sparing fragile patients from invasive and risky procedures^(11,12), consequently patients only sought treatment with the disease already in more advanced stages, which restricts the prognosis due to the difficulty of curative treatments and justifies the data found that almost 83% of the sample had stage IV cancer.

Most of the patients were smokers or drinkers. There are studies that prove this because they show that short or long-term drinking has an important carcinogenic effect on various bodily systems, and also that smoking increases the likelihood of neoplastic lesions, especially in the aerodigestive tract⁽¹³⁾.

The fact that half of the population in this study had another comorbidity associated with cancer was also confirmed by Australian researchers in 2018. This study pointed to the presence of more prevalent comorbidities in patients who have a history of cancer than in those who don't. This fact is related to the predisposition to other diseases generated by cancer treatment, exposure to risk factors common to cancer and other chronic diseases, improvement of oncological monitoring, as well as the increased survival of these patients, due to the influence of certain tumor topographies and some comorbidities and some

Table 3. Screening and Speech-Language Pathology Assessment

Variable	Frequency n° (%)	TOTAL
Category		
Swallowing complaints	38 (73.1)	52 (100.0)
Eating complaints	24 (46.2)	52 (100.0)
Complaint		
Presence	42 (80.8)	52 (100.0)
Absence	10 (19.2)	
Conduct		
Guidelines	25 (59.5)	42 (100.0)
Speech-language pathology and assessment	17 (40.5)	
Swallowing assessment		
No	40 (76.9)	52 (100.0)
Yes	12 (23.0)	
FOIS		
Level 5	7 (58.3)	12 (100.0)
Level 6	3 (25.0)	
Level 2	2 (16.7)	

Subtitle: n° (%) = number of participants (percentage); FOIS = *Functional Oral Intake Scale*

Table 4. Associations between symptoms and clinical data

Variable	Swallowing Complaints n° (%)			Eating Complaints n° (%)		
	Yes	No	P-value	Yes	No	P-value
Topography						
Gastrointestinal tract	12 (70.6)	5 (29.4)	0.002*	7 (41.2)	10 (58.8)	0.497
Lung	12(100.0)	0(0.0)	0.253	7 (58.3)	5 (41.7)	0.214
Prostate	9 (100.0)	0(0.0)	0.572	4 (17.4)	5 (55.6)	0.634
Head and neck	5 (100.0)	0(0.0)	0.590	1 (20.0)	4 (80.0)	0.256
Uterus	5 (100.0)	0(0.0)	0.590	4 (80.0)	1 (20.0)	0.112
Breast	4 (100.0)	0(0.0)	0.659	0 (0.0)	4 (100.0)	0.088
Treatment						
Did not perform	3 (100.0)	0 (0.0)	0.734	2 (66.7)	1 (33.3)	0.412
Surgery	3 (75.0)	1 (25.0)	0.341	1 (25.0)	3 (75.0)	0.398
RT	4 (100.0)	0 (0.0)	0.659	3 (75.0)	1 (25.0)	0.222
QT	8 (88.9)	1 (11.1)	0.629	5 (55.6)	4 (44.4)	0.349
QT + RT	8 (100.0)	0 (0.0)	0.418	3 (37.5)	5 (62.5)	0.493
Surgery + QT	5 (83.3)	1 (16.7)	0.473	1 (16.7)	5 (83.3)	0.157
Surgery + QT + RT	16 (88.9)	2 (11.1)	0.572	8 (44.4)	10 (55.6)	0.605
PPS						
10 - 20	6 (100.0)	0 (0.0)	0.527	5 (83.3)	1 (16.7)	0.052
30 - 50	35 (92.1)	3 (7.9)	0.409	16 (42.1)	22 (57.9)	0.421
≥ 60	6 (75.0)	2 (25.0)	0.164	2 (25.0)	6 (75.0)	0.213

Fisher's Exact Test; p* ≤ 0.05

Subtitle: n° (%) = number of individuals (percentage); RT = Radiotherapy; QT = Chemotherapy; PPS = *Palliative Performance Scale*; ≥ = greater than or equal to

chronic diseases present a risk factor for the development of neoplasms⁽¹⁴⁾.

PPS is a proven and reliable tool for measuring the development of a disease and the patient's life prognosis. In addition to providing useful care information Its application in this study allowed the assignment of higher percentages found in the sample studied since they were patients with an outpatient profile, at least in the initial phase of palliative care⁽¹⁵⁾.

Among the results of the oncological data, the topographies presented are justified by the fact that the collection was carried out in an oncological unit of the public health service which, according to Ordinance no 874 of the Ministry of Health of the 16th of May 2013, should carry out diagnosis and treatment of the most prevalent cancers in the health region where it is located⁽¹⁶⁾. According to data from the 2018 National Cancer Institute (INCA) estimate for the Federal District, the most prevalent primary lesions topographies were prostate, female breast, uterus, trachea, bronchus and lung, colon and rectum and oral cavity, which is comparable with the data found in this study⁽¹⁷⁾.

Of the various categories of symptoms in this study, the most frequent were related to swallowing, found in 70% of the sample, who during the questionnaire reported one or more problems related to this function. This percentage is similar to another study carried out with patients with different diagnoses in 2019 in Brazil⁽¹⁸⁾. A similar study carried out in Italy in 2015 with 669 patients with advanced cancer found that 40% had xerostomia, 22% mucositis and 15% dysphagia, usually as a result of cancer treatment and cachexia resulting from the evolution of the disease, which limits the intake of food and liquids consequently impairing the process of caring for other symptoms⁽¹⁹⁾.

As well as swallowing complaints, eating complaints were also frequent in the studied sample, which confirms the findings of a study carried out by Santos et al.⁽¹⁸⁾, who found a relationship between low food acceptance and the state of terminality, due to an absence of hunger and thirst, causing concerns of family members who insistently offer sustenance against the individual's wishes in order to avoid the death mechanism.

During screening about 30% of the sample complained of signs suggestive of penetration and/or laryngotracheal aspiration, requiring a speech-language pathology assessment of swallowing, suggesting the possibility of a decline in the patient's condition of health and level of suffering, however the results of the FOIS scale showed that more than 50% of them were fed orally with multiple food consistencies which is in agreement with the data from Santos et al.⁽¹⁸⁾, which relates them to greater efforts by the team, especially the speech-language pathologist to maintain swallowing functionality in patients in palliative care⁽¹⁸⁾.

The significance of the association of swallowing difficulties in patients with tumors of the gastrointestinal tract can be justified because they are organs directly linked to the swallowing function, suggesting a higher risk of dysphagia and malnutrition in these sufferers⁽²⁰⁾. On the other hand, the distribution of swallowing complaints in all neoplasm topographies may be condoned by the adverse effects of the oncological treatment lines and the systemic symptoms of the disease on stomatognathic functions.

A study carried out by Norwegian dentists found that patients with tumors in regions other than the head and neck undergoing chemotherapy tend to have several oral sequelae, especially xerostomia and mucositis, which are aggravated by systemic medications for the treatment itself or for pain control⁽²¹⁾. Another study carried out in Asia by oncologists in patients undergoing chemotherapy and radiotherapy, found that the symptoms most commonly associated with the treatment are also mucositis, xerostomia and difficulty in swallowing, justifying the higher frequency of this complaint in irradiated patients in this study⁽²²⁾.

The increase in the frequency of swallowing difficulties in the categories of lower percentages of PPS of patients closer to terminality, is highlighted since this finding confirms the increased incidence of dysphagia, as the palliative phase progresses, causing greater discomfort to the patient and concern to the family, as suggested by Bogaardt et al.⁽²³⁾ in 2015.

Shared caring has been proven to be beneficial, optimizing the patient's time and enabling the team to have a broader view of their demands. However, the greatest limitation of this study was the performance of the speech-language pathology assessment and follow-up, due to the extreme fatigue presented by the patients, making it difficult for them to visit or to be in the outpatient clinic.

Considering the relevance of the data found for resolving swallowing and eating issues which can be detrimental to the quality of life of cancer patients in palliative care, it is suggested that further studies should be carried out on the swallowing abilities of these sufferers, as well as on adherence by the patient, family and team to the speech-language pathologist conduct and guidelines of this type of care⁽²⁴⁾.

CONCLUSION

The speech-language pathology screening of cancer patients in palliative care made it possible to identify the most frequent category of complaints as being swallowing, as well as to greater understand the eating difficulties of these patients.

The association of the findings made it possible to relate swallowing complaints to gastrointestinal tract neoplasms and to identify their higher frequency in patients undergoing radiotherapy and close to terminality, and to make health professionals aware of the benefits of shared consultation in palliative care with the aim of reducing the damage of the disease and of the treatment of functions that are extremely important for the well-being and life quality of patients.

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