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ORIGINAL ARTICLE

EMERGENCY SIGNS / SYMPTOMS FROM THE PERSPECTIVE OF PATIENTS UNDERGOING PATIENT CHEMOTHERAPY

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ABSTRACT

Objectives: to identify the knowledge of oncological patients undergoing outpatient chemotherapy regarding emergency signs and symptoms. **Methods:** It is a descriptive, qualitative study. Two instruments were used: a questionnaire to characterize the participants and an open interview. The analysis of the first instrument was based on simple descriptive statistics; the second by thematic analysis. **Results:** The symptoms described by the participants were: fever, nausea, vomiting, constipation, inability/difficulty with food intake, headache, generalized pain or pain in places that refer to the tumor, dyspnea, vertigo, loss of consciousness, loss of ability to walk, chest pain and sudden changes in systemic pressure level (increase or decrease). As conditions that can interfere with the decision to seek emergency services, the manifestation of abnormal symptoms for the patient, the patient's knowledge about the pathology and treatment, as well as the patient's previous experience with the emergency service was identified. **Conclusion:** In short, the reasons that lead cancer patients to seek emergency are linked to the "severity" that it attributes to the effects of treatment.

Keywords: Medical oncology. Emergencies. Self-Management.

INTRODUCTION

Cancer is a public health problem in Brazil, with non-melanoma skin cancer being the most prevalent in both sexes[1]. As treatments, there are three main modalities: surgery, radiation and chemotherapy. These can be used together, enhancing the effect of the other, or in isolation. Few cancers are treated with a single therapeutic modality[2].

Outpatient chemotherapy patients have several care needs related to physical factors and daily life, access to health networks, sexuality, psychological status, information about health and treatment status and care and support[3]. Unlike inpatients, patients treated on an outpatient basis are not under the supervision of a health professional who can intervene or identify the early signs of an imminent deterioration. Make sure that the patient and his/her companion understand that the need for emergency intervention is important to speed up the search for hospital care at the right time and avoid further damage.

A study carried out in an emergency service of a Brazilian public hospital found that of the 172 cancer patients treated in one year, 28% died and 14% required hospitalization. Pain appeared as the main complaint, being reported by 83% of patients, followed by treatment-induced nausea and vomiting[4]. Other studies also revealed that part of cancer patients undergoing outpatient chemotherapy sought emergency care due to dyspnea, nausea and vomiting, headache, mental confusion, chest pain, fever and pain[4-7].

Methodologically, the research was based on a quantitative approach and was carried out based on consultations with patients' medical records at the health institution itself or through state health information banks, that is, they were obtained indirectly[4-7]. Thus, it is not possible to know whether the patient's decision to seek emergency care was made at the appropriate time (onset of signs and symptoms) or late.

Considering the presented, this study has the following guiding questions: what is the knowledge of oncology patients in outpatient regimen that motivate them to seek care in an emergency unit and what are the factors that influence the motivation of oncology outpatient

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patients to seek out an emergency unit, so these are the objectives of the research: to identify the knowledge of oncology patients in outpatient care, which motivate them to seek care in an emergency unit and to analyze the factors that influence the motivation of oncology patients in outpatient care to seek out a unit of emergency.

METHODOLOGY

This is a descriptive study with a qualitative approach[8], whose setting is an outpatient chemotherapy sector of a university hospital in the city of Rio de Janeiro. This hospital is not specialized in oncology, but is classified as a High Complexity Care Unit in Oncology[9].

Study participants are patients undergoing outpatient chemotherapy. Inclusion criteria: being over 18 years old and having already undergone a chemotherapy session. The choice of the second condition is justified, because, to perform the first chemotherapy session, the patient receives guidance on the treatment and its undesirable effects. The exclusion criteria were patients using chemotherapy adjuvant to other cancer treatment modalities and patients with difficulty in communicating properly, either due to problems related to speech and/or hearing or cognitive impairment.

Data collection took place between July and August 2018. Participants were selected for convenience, among those who attended the service during the data collection period [8]. Two instruments were used: the first is a structured questionnaire designed by the authors in order to characterize the participants; the second is an open interview that sought to find out what the participant knows as a "sign/symptom" that needs emergency care for resolution or follow-up. The transcribed material was assigned an alphanumeric code and the interviewee was never identified, either in the text or in the recording. There was no time limitation for the participant to answer the questions and expose their perceptions, with an average interview time of 25 minutes.

The researcher went to the study scenario once a week, on the day and time made available by the chemotherapy department head. The interviews were recorded on digital media with the aid of a cell phone and carried out on the premises of the chemotherapy sector. The contact between the researcher and the participant always occurred before the administration of the drugs. Each participant was interviewed only once and had no further participation during the study.

The first instrument was analyzed using simple descriptive statistics, organized in a database in Excel 2016®. And the data referring to the second instrument were submitted to thematic analysis[10], which consists of the following steps: comprehensive reading of the selected material in order to apprehend its particulars; exploration of the material, transformation of raw data and thematic categories; and finally, the elaboration of the interpretative synthesis, which articulates the objectives of the study, the theoretical basis and the empirical data.

In the pre-analysis phase, the statements were grouped and the Registration Units were elaborated. Subsequently, in the material exploration phase, the data was coded and regrouped by similarity and by difference of directions. In the Data Treatment phase, the data was organized and categorized, which was interpreted.

Then, the most significant speeches that could be analyzed were clipped by articulation of research authors on the theme related to the object of study.

In order to ensure compliance with ethical issues, the study was approved by the Research Ethics Committee of the Federal University of the State of Rio de Janeiro, opinion No. 2,708,899.

RESULTS AND DISCUSSION

The 10 participants are aged between 23 and 73 years-old (average of 53 years-old), six of whom are female, six are married and eight have children (average of two children). No participant live alone and seven of them were accompanied to chemotherapy sessions. Only three used public transport as the main mode of transportation (f = 3), using help from family members or private urban transport services. The journey time to the treatment site varied between 30 and 165 minutes (average 83 minutes).

The medical diagnoses present in the group

were colorectal, breast, Hodgkin's and non-Hodgkin's lymphoma, testicular cancer, lung and head and neck cancer. Patients with non-Hodgkin's lymphoma, breast, colorectal, head and neck and non-small cell lung cancer are at a greater risk of presenting severe toxicities related to high doses of chemotherapy and of using health services more for unexpected situations[5].

The length of chemotherapy treatment among study participants ranged from one month to twelve months. Only one participant knew the chemotherapy protocol that was in use, despite not remembering the name of the drugs.

The symptoms that are most commonly identified by the participants in this investigation as potential motivators for seeking emergency services were: fever, nausea, vomiting, constipation, incapacity/difficulty in eating, headache, generalized pain or pain in places that refer to the tumor, dyspnea, vertigo, loss of consciousness, loss of ability to walk, chest pain and sudden changes in systemic pressure level (increase or decrease).

It should be noted that some of the referred signs and symptoms are not considered emergency, especially if presented in isolation as constipation and vertigo; others are extremely important when they are uncontrollably present (pain, vomiting and headache) as they may indicate structural and metabolic oncological emergencies caused by the progression of cancer and treatment. However, no participant commented on the intensity of the symptoms/signs described that would lead them to seek emergency care.

It is interesting to note the presence of extreme signs and symptoms such as loss of mobilization, swallowing or awareness and sudden changes in blood pressure, which may demonstrate the difficulties of some participants in this group in identifying early signs of emergency worsening related to treatment and pathology.

In a survey that followed elderly cancer patients who attended consultations at the emergency service, it was demonstrated that 1572 visits were made in one year. The causes for seeking emergency services were related to problems in the respiratory system (16%), digestive system (14%), neurological system (8%), fever or infection (8%) and cardiovascular system (8%) (7), causes also mentioned by the group of participants in this study. Other factors in the search for the emergency service in the previous study were fear of not being able to access the primary network, of not being able to have previous contact with the regular health team for guidance on the manifested symptoms of signs and symptoms related to clinical deterioration [7].

Among the participants, seven reported fever as an emergency symptom, but only three considered it to be extremely urgent. Fever may be related to one of the most common oncological emergencies in patients undergoing chemotherapy: febrile neutropenia.

Febrile neutropenia occurs when the number of neutrophils is less than or equal to 1000 cells/mm³ (mild cases) or when the number of neutrophils is less than or equal to 500 cells/mm³ in severe cases, associated with a temperature equal to or greater than 38°C sustained for more than an hour [11]. In onco-hematological patients under induction or remission chemotherapy, the probability of presenting at least one episode of febrile neutropenia is high [11]. Thus, an immunosuppressed patient with febrile neutropenia can quickly evolve to death.

Comparing cases of sepsis in cancer and non-cancer patients, those diagnosed with cancer were younger and more hemodynamically unstable and had a higher risk of dying within the first 24-72 hours of hospitalization. One explanation for these facts is the disease itself and the immunosuppressive treatment that predisposes the patient to opportunistic infections[12].

FACTORS THAT MAY INTERFER IN THE DECISION TO SEARCH FOR EMERGENCY SERVICE

Some conditions were perceived that can interfere in the decision of the cancer patient, under outpatient chemotherapy treatment, to seek the emergency, which are: perception of abnormal signs and symptoms; knowledge of the patient about the pathology and treatment; and the patient's previous experience with the emergency service.

Perception of abnormal signs and symptoms

> Sometimes you have **something that doesn't go away**. You takes all the medicines, right? Home remedies and it doesn't go away, then I go to a doctor. (P1)

> If I were ... for example, I was very ill and I **couldn't bear it** [...]. (P2)

> That I think **a part of the morning**, a person vomiting can't take it. So because, the medicine is all rejected, isn't it? (P5)

> When you feel sick, right, **because when you're not feeling very well, you always wait at home taking dipyrone**, right? (P6).

> **I think that only if it's very... well I don't really use to do,** like shortness of breath, too high or too low pressure, or very severe pain. (P4)

> I think ... that ... in case of fainting. And fever, right. **Because I know it wouldn't be normal.** (P7)

From the statements above, it can be assumed that the search for the emergency service is related to some sign and symptom that does not pass with the support medications used routinely, that lasts for a long time, or some high intensity situation that would escape tolerable or expected standard.

The patient's experience with the consequences/effects that the drug causes in the body generates a pattern of signs and symptoms that he usually presents after a treatment session. During chemotherapy treatment, patients have some degree of toxicity that can be from mild to severe; especially those treated with high-dose chemotherapy protocols [5].

The degree of severity that the patient attributes to the symptom influences the decision to seek emergency care. In terminal stage palliative cancer patients, the reasons for seeking health care were the presence of signs and symptoms recognized as severe and debilitating. Symptoms usually manageable at home, when intolerable, were also reasons for seeking hospital assistance [13].

Patient knowledge about pathology and treatment

Some factors can interfere with the patient's interpretation of the "symptoms" that the body presents. These are conditions that can contribute to or hinder the patient's spontaneous search for care: understanding about the side effects related to the medication in use and about expected emergency situations; the patient's anxiety about his health status and experiences acquired with the treatment [13].

It was noted that some participants had difficulty in effectively reporting the reasons that would lead them to seek the emergency service:

> **To tell you the truth, I don't even know**, she explained it to me. Sometimes it's dizzy, I don't know.(P10)

> **[...]** the one I started with**, she also didn't say anything, she just said that if I felt something different for me to go to the emergency** and look for her. But for now, I have had no reaction. (P4)

> Yes, if you feel sick, you must go to UPA [...] **it's not being able to walk, not being able to eat and to speak. That's it for me.** (P9)

One of the indicators of the quality of an oncology care service is the number of hospital readmissions, which can be a consequence of inefficient communication between the patient and the health team, anxiety/misinterpretation of the patient in relation to his real health condition and difficulty in accessing the treatment network[14].

Educational practices directed to the individual's needs decrease hospital admissions for manageable issues at home, in addition to being able to modify what the patient considers "normal" during chemotherapy treatment, and consequently, helps to understand what can really be an emergency [13]. The lack of knowledge about the issues surrounding treatment and pathology can jeopardize the quality of life of cancer patients.

In patients readmitted to the health system hospital network due to conditions related to cancer pathology, 23% of the patients in the sample had pain, dyspnea and abdominal discomfort as main complaints. Of the 72 cases studied, 31% of the causes were predictable through adequate assistance [14].

Previous patient experience with the emergency department

It is not uncommon for patients to be

diagnosed with cancer during an emergency department visit. In England, approximately 25% of new cases of the disease are diagnosed in this type of service [15]. In Brazil, emergency care units are the gateway to the health system, and together with basic health units, they are sought for the diagnosis [16].

However, there is discontent with these services in relation to the waiting time for care, lack of confidence in the service offered, unsatisfactory resolution of complaints, reception of health professionals, cleanliness and comfort in emergency units[17].

> I just see the doctor when it is necessary. **I don't like staying at the hospital**. (P1)
>
> […] Anything, there is someone who **helps me in private**, right? (P2)
>
> Although you are in the emergency today in pain, **you will be there in pain, right?** (P5)
>
> I just think it will be all right, we **don't "have" "good" emergencies anymore.** (P8)

Considering the statements above, it can be assumed that the participants were dissatisfied with the emergency services of the care network. The fact that the service offered is not in good quality can interfere with the patient's spontaneous search for the service, since the dissatisfaction generated by the previous experience may have been remarkable.

In a Brazilian study carried out in the Centro-Oeste region, the suggestions for improvement for the emergency service proposed by the users of the units were related to the improvement of the team's care to the patient, whether in the reception regarding the work processes (records in medical records, administration of medicines...), better working conditions through a dimensioning of workers appropriate to the service, constant training of professionals and an adequate physical structure of the unit [18].

By applying measures like these, patient satisfaction with the emergency service is likely to increase the quality of the service, providing a system for rapid identification and diagnosis of emergency signs and symptoms and reducing the risk of errors related to poorly structured work processes.

FINAL THOUGHTS

It is concluded with this study that, among the signs and symptoms that can be reasons for the cancer patient to seek assistance in emergency services, those that most affected the patient's decision were abnormal signs and symptoms in the perception of each individual, characterized by not be manageable with supportive drugs used routinely, when they last for a long time or be high intensity/intolerable.

The patient's judgment of the sign/symptom presented may be affected by anxiety and knowledge about the treatment and the disease. Some patients were unable to clearly report emergency "situations" that are related to treatment, nor did they report fever as an essential "warning sign", which may be an indicator of a case of severe neutropenia. Educational practices, which are carried out mainly by Nursing, can reduce hospital admissions for manageable issues at home, in addition to helping the patient to understand what can really be emergency within the treatment.

The patient's negative experience with the emergency service may hinder the initiative to seek medical attention and cause a greater risk of morbidity and mortality for cancer patients. Several researches in the area are suggested, since the sample of this study does not allow further generalizations as it is restricted to a single scenario.

SINAIS/SINTOMAS DE EMERGÊNCIA NA PERSPECTIVA DOS PACIENTES EM QUIMIOTERAPIA AMBULATORIAL ABSTRACT

Objetivos: identificar o conhecimento de pacientes oncológicos em tratamento quimioterápico ambulatorial sobre os sinais e sintomas de emergência**. Métodos:** Estudo descritivo, qualitativo. Utilizaram-se dois instrumentos: um questionário de caracterização dos participantes e uma entrevista aberta. A análise do primeiro instrumento foi por estatística descritiva simples; o segundo por análise temática. **Resultados:** Os sintomas descritos pelos participantes foram: febre, náuseas, vômitos, constipação, incapacidade/dificuldade de ingestão alimentar, cefaleia, dor generalizada ou dor nos locais que remetem ao tumor, dispneia, vertigem, perda de consciência, perda da capacidade de andar, dor no peito e variações bruscas de nível de pressão sistêmica (aumento ou diminuição).Como condições que podem interferir na decisão da busca pelo serviço de emergência, foi identificada a manifestação de sintomas anormais para o paciente, o conhecimento do paciente sobre a patologia e tratamento, além da experiência prévia do paciente com o

serviço de emergência**. Conclusão:** Em suma, os motivos que levam o paciente oncológico a buscar a emergência estão ligados à "gravidade" que o mesmo atribui aos efeitos do tratamento.

Palavras-chave: Oncologia. Emergências. Autogestão.

SEÑALES/SÍNTOMAS DE URGENCIAS DESDE LA PERSPECTIVA DE LOS PACIENTES SOMETIDOS A QUIMIOTERAPIA AMBULATORIA

RESUMEN

Objetivos: identificar el conocimiento de pacientes oncológicos sometidos al tratamiento de quimioterapia ambulatoria sobre las señales y los síntomas de urgencias. **Métodos**: estudio descriptivo, cualitativo. Se utilizaron dos instrumentos: un cuestionario de caracterización de los participantes y una entrevista abierta. El análisis del primer instrumento fue por estadística descriptiva simple; el segundo por análisis temático. **Resultados**: los síntomas descriptos por los participantes fueron: fiebre, náuseas, vómitos, estreñimiento, incapacidad/dificultad de ingestión alimentaria, cefalea, dolor generalizado o dolor en los locales que indican el tumor, disnea, vértigo, pérdida de consciencia, pérdida de la capacidad de andar, dolor en el pecho y variaciones bruscas de nivel de presión arterial (aumento o disminución). Como condiciones que pueden interferir en la decisión de la busca por el servicio de urgencias, fue identificado el manifiesto de síntomas anormales para el paciente, el conocimiento del paciente sobre la patología yel tratamiento, además de la experiencia previa del paciente conel servicio de urgencias. **Conclusión**: en síntesis, los motivos que inducen al paciente oncológico a buscar urgencias están relacionados a la "gravedad" que este atribuye a los efectos del tratamiento.

Palabras clave: Oncología. Urgencias. Autogestión.

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