The clinical-epidemiological profile of patients in palliative care treated in an general emergency service

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ABSTRACT

Patients seek emergency rooms for immediate relief from pain or other physical symptoms. Professionals in emergency rooms are trained to render focused care in the targeted treatment of acute diseases and provide palliative interventions to manage exacerbations of chronic illnesses or end-of-life care to patients under palliative care. Knowing the patient's profile for palliative care in the emergency room can be helpful for implementing targeted measures to provide better patient care. This study aims to describe the clinical-epidemiological profile on patients in palliative care treated in an emergency room. A transversal, observational, and retrospective study was carried out of adult patients of both sexes in palliative care treated at Unidade de Pronto Atendimento -UPA over ten months. Data were collected about admission, type of caregiver, pathology, and outcomes. The study was approved by the Research and Ethics Committee. In total, 83 patients with a mean age of 78.5 (±14.3) were analyzed. There was a predominance of female patients (61.4%), and most came from a residence (87.9%). Further, 91.57% had caregivers, predominantly unpaid family caregivers (76.3%). Regarding previous care, 44.58% had sought palliative care less than one month ago. As the base disease, 68.6% were oncological and 31.3% non-oncological. Prostate cancer constituted the primary oncological cause (30.7%), followed by hepatic neoplasia and bile ducts (15.4%). Fragility syndrome (42.10%) and severe complications after a stroke (17.5%) were more frequent in non-oncological base cases. The main symptom was dyspnea noted in 38 patients (45.7%). Pain and dyspnea were more frequent in oncological cases (34.6% and 23.0%, respectively), followed by dyspnea and delirium in non-oncological cases (56.1% and 28.0%, respectively). In the present study, predominantly older patients with a caregiver demonstrated a more significant frequency of non-oncological base disease, dyspnea, pain, and *delirium*.

Keywords: Palliative care, Palliative medicine, Emergencies.

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INTRODUCTION

Palliative care (PC) is directed at people of all ages who experience intense suffering related to their health due to severe illnesses, especially those patients at the end of life.[1,2] PC involves the person's physical, spiritual, psychological, social, and family care.[3]

PC patients often seek emergency care in emergency rooms (ER) with life-threatening conditions for symptom control of chronic disease exacerbations and end-of-life care.[1,3] These patients may present severe physical symptoms, psychological distress, caregiver burden, and unrecognized spiritual crisis, among other issues that cause intense suffering and should not be ignored.[4]

Emergency services provide immediate care to patients in times of acute need.[4] The dominant paradigm in urgent and emergency medicine has been life-sustaining therapy at all costs, often without paying attention to patient prognosis, treatment values, and preferences for care previously defined by the patient.[4] Therefore, PC patients challenge the general emergency department to provide immediate interventions to meet their complex needs.[1,4]

Little is known about the number and characteristics of people who require PC in general emergency services. Therefore, knowing the profile of PC patients seen in the ER and their reasons for seeking emergency care is essential to identifying obstacles to providing quality care to these patients. This information can help implement interventions to improve care services and public health measures to prevent complications that lead these people to seek this kind of service and better train professionals who may treat them in urgent emergency units.

METHODOLOGY

This is an observational, cross-sectional, retrospective study of adult PC patients (aged >14 years) of both sexes who were admitted to the adult emergency department of a general medical clinic in an emergency care unit (UPA) in the state of Pernambuco, Brazil. The study was conducted for ten months, from November 2019 to July 2020. This study was approved by the Research Ethics Committee (CAAE: 29403820.9.0000.5192).

Data were collected on age, sex, origin, presence of secondary diseases, presence of the caregiver, type of caregiver, last hospital admission or emergency care, signs and symptoms, type of underlying disease, functionality, and clinical outcome.

Several specific scales are used to assess the performance of PC patients. This study used the Karnofsky Performance Status Scale (KPS), a simple and widely used tool to measure functional impairment caused by disease and prognosis, stratified into 11 levels from 0 to 100, where 0 is death, and 100 is preserved functional capacity. KPS was routinely used in the UPA studies, and all information was found in medical records. PC patients usually reach a KPS index ≤30 when they are in the terminal phase of the disease.[5-7]

Statistical analysis was performed using Stata 14 statistical software. All variables were evaluated for normality of distribution by the Kolmogorov–Smirnov test, when appropriate, and the results were expressed as mean ± standard deviation, median, percentages, or prevalence. Fisher's exact test, Pearson's chi-square, Kruskal–Wallis, and ANOVA tests were used to compare categorical variables.

RESULTS

We analyzed a total of 83 medical records. The mean age was 78.53 (±14.31) years. Most of the patients were female, had a caregiver, and were previously at home. Table 1 shows the general characteristics of the population studied.

Of the 83 patients analyzed, 26 (31.33%) had an underlying oncologic disease, and 57 (68.67%) had a non-oncologic underlying disease. Prostate cancer was the main oncological cause (30.77%), followed by liver and biliary tract neoplasms (15.38%) and lung cancer (11.53%). In patients with non-oncologic underlying disease, fragility syndrome (42.10%) and severe stroke sequelae (17.54%) were more frequent. Table 2 describes the pathologies of the population studied.

The signs and symptoms that led the patients to seek the ER were pain (n = 13; 15.66%), vomiting and nausea (n = 5; 6.02%), constipation (n = 3; 3.61%), dyspnea (n = 38; 45.78%), bleeding (n = 3; 3.61%), and *delirium* (n = 21; 25.30%). Of the 38 cases of dyspnea, 15 cases were suspected of coronavirus disease-2019 (COVID-19).

When assessing these signs and symptoms according to the underlying disease, pain and dyspnea were the most frequent complaints in patients with the underlying oncologic disease (34.62 and 23.08%, respectively), followed by dyspnea and delirium in patients with a non-oncologic underlying disease (56.14 and 28.07%, respectively). Table 3 shows the signs and symptoms of the population studied.

Table 1. Baseline characteristics of the population studied.

Variables	N=83	%
Sex		
Female	51	61.45
Male	32	38.55
Previous place		
Home	73	87.95
Shelter and other health services	10	12.05
Caregiver		
Yes	76	91.57
No	7	8.43
Type of caregiver		
Unpaid family member	58	76.32
Paid family member	12	15.79
Unpaid nonfamily member	2	2.63
Paid nonfamily member	4	5.26
Number of secondary diseases		
None	15	18.07
One	17	20.48
Two or more	51	61.45
Hospitalization or prior care in the emergency room		
<1 month	37	44.58
1-6 months	23	27.71
>6 months	23	27.71

Table 2. Pathologies and syndromes of the population studied.

	N	%
Oncological disease	**26**	
Prostate cancer	8	30.77
Liver and biliary tract neoplasm	4	15.38
Lung cancer	3	11.53
Uterine/endometrial cancer	2	7.69
Breast cancer	2	7.69
Stomach cancer	2	7.69
Other neoplasms	5	19.20
Non-oncologic disease	**57**	
Fragility syndrome	24	42.10
Severe sequelae of stroke	12	21.05
Advanced dementia syndrome	10	17.54
Severe lung disease	7	12.28
Severe heart disease	4	7.01

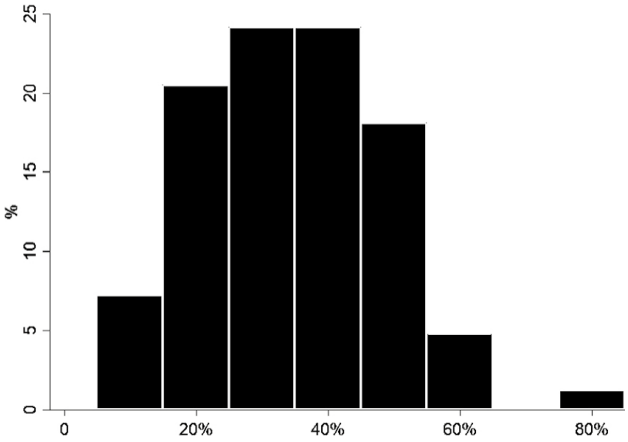
Table 3. Signs and symptoms of the population are studied according to the underlying disease.

	Oncologic disease		Non-oncologic disease		p-value[1]
Signs and symptoms	**N=26**	**%**	**N=57**	**%**	
Pain	9	34.62	4	7.02	0.004
Vomiting/nausea	2	7.69	3	5.26	0.947
Constipation	2	7.69	1	1.75	-
Dyspnea	6	23.08	32	56.14	0.005
Bleeding	2	7.69	1	1.75	-
Delirium	5	19.23	16	28.07	0.390

[1]p-value of the chi-square test for comparison of proportions.

Hospitalization was necessary in 59.04% of the cases, both for tertiary/inpatient emergency services (n = 37; 44.58%) and intensive care unit (n = 12; 14.46%). A total of 15 patients (18.07%) were discharged without hospitalization, and 19 patients (22.89%) died.

The performance of the patients was evaluated using KPS. In general, the results showed that most of the patients had indices of 30 and 40% (n = 20; 24.10% and n = 20; 24.10%, respectively) (Graph 1). The performance status was better in patients discharged without hospitalization with an index ≥30% (n = 15; 100%) and was worse in patients whose outcome was death with an index of 10% in five patients (26.32), 20% in seven patients (36.84), 30% in five patients (26.32), and indices ≥40% in two patients (10.53).



Graph 1. Karnofsky scale distribution of the entire population studied.

DISCUSSION

The present study was conducted in a public emergency care unit of the Brazilian Unified Health System (SUS), which is expected to receive mainly the low-income population and whose care is usually provided by unpaid family caregivers, as observed in our results.

Most of the patients had two or more secondary diseases, which is expected since the majority of the sample is composed of older people, a group with a high prevalence of chronic diseases due to the natural aging process.[8]

Regarding hospital admission or previous care in emergency services, studies show that half of the people aged >65 years, in general, will have at least one visit to an emergency care unit in the last month of life, with hospitalization in 77% of these cases, and in-hospital death in 68% of these.[4,9] A total of 83% of patients who die from oncologic diseases are estimated to visit the ER at least twice in the last six months of life.[10] In the present study, 44.58% of patients had sought the ER less than one month before, showing the severity of the underlying disease that requires more frequent care.

Another study analyzed 1,185 PC patients in a PC reference center with a mean age of 70.8 years, showing that males visited the ER more often than females (OR = 1.6; p = 0.001). Females with gynecological cancer sought emergency services more frequently than other PC conditions (OR, 3.3; p < 0.001).[11] Similarly to the findings in the literature, the present study showed a higher number of females seeking emergency services. In addition, prostate cancer and gynecological neoplasms were among the top five oncological causes.

In general, the main signs and symptoms of PC patients in the ER are pain (45.1–64.0%), dyspnea (31.0%), delirium (18.0%), bleeding (13.0%), constipation (32.0%), anorexia (34.0%), fatigue (32.0%), fever (<10%), and dehydration (<10%).[1,12] A study by Wallace et al. evaluated 30 PC patients in the ER, and their main signs and symptoms were dyspnea (26.0%), nausea/vomiting/constipation (17.0%), and pain (14.5%).[13] In this study, the most frequent complication was dyspnea. Although it is a frequent complication, the number of cases of dyspnea increased in the study period due to the increase in the number of cases of COVID-19 during the pandemic period. For the same reason, fewer people sought emergency care services due to chronic complaints, such as pain.[14,15]

The demand for PC patients admitted to a general practice ward was evaluated in a study that analyzed 58 patients with a mean age of 61 years. Psychological symptoms of sadness and anxiety were the most frequent, followed by pain, fatigue, and malaise[16]. In the present study, we could not analyze subjective and psychological symptoms due to the impossibility of using specific scales to assess signs and symptoms in PC patients with this scope, such as the Edmonton Symptom Assessment Scale[6], as it was a retrospective study and the ER where it was conducted did not use this kind of scales.

A study was conducted to evaluate the pathological profile of oncology patients admitted to the ER, and the most prevalent oncological sites were the cervix (18.3%), breast (13.6%), and prostate (10.5%).[12] Patients included in the present study with the underlying oncologic disease also had prostate and gynecologic cancer as primary sites, in addition to lung and liver and biliary tract neoplasms, among the most common neoplasms in the population and with the highest overall lethality.[17]

Marcucci (2019) evaluated 129 patients in a PC unit, and most of those were non-oncologic cases. Most of the patients had neurological diseases such as stroke and dementia syndromes.[19] This pathological profile is similar to that found in non-oncologic cases in this study, reflecting a real demand related to population aging and the increase in chronic diseases that require PC.[19,20,21]

In a study with 98 PC patients in a medical clinic ward, Cabianca et al. observed that 21% of those had a KPS score of 100%.[6] In this study, most patients had a KPS score >30%, which is consistent with the literature by showing lower rates in patients in the end-of-life phase as in the group that had a death outcome and had worse performance.[5]

A positive aspect of this study was the evaluation in a general emergency service, which reflects the reality of most PC patients in Brazil who do not have easy access to specialized services to control acute symptoms. This study had some limitations. First, because it is a retrospective study with secondary data. Second, this study was conducted during the period of the COVID-19 pandemic, and the analyses were performed in only one emergency care unit. Therefore, we suggest further research of this nature in other emergency care units to go beyond local data.

CONCLUSIONS

The sample evaluated was composed mainly of females aged >65 years who came to the ER with a caregiver, with a high number of secondary diseases and a high frequency of dyspnea, pain, and *delirium.*

The characteristics of PC patients seen in general emergency services may vary according to the health institution and the population in which it is inserted. Knowing this profile becomes a potential tool to change the care model for PC patients in the ER, which goes beyond the restrictive behaviors traditionally adopted by general emergency services, focused only on diseases with obstinacy for life maintenance to the detriment of the patient and their individual needs in a global way. This study is expected to stimulate new publications on the subject, contributing to the structure of public policies related to the care of patients in PC.

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