

Use of palliative care in patients with hematological tumors versus patients with solid tumors in our setting. Are there differences?

Utilización de los cuidados paliativos en pacientes con tumores hematológicos frente a pacientes con tumores sólidos en nuestro medio. ¿Existen diferencias significativas?

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Abstract

Introduction: Patients with hematological malignancies (HM) tend to access palliative care (PC) services later and less frequently than those with solid tumors (ST), despite having similar needs. **Objectives:** This study compares PC utilization between both groups in a public hospital in the Community of Madrid. **Material and method:** A retrospective observational study was conducted including 5,188 patients (184 with HM and 5,004 with ST) managed by the PC unit between 2002 and 2023. Demographic, clinical, and care-related variables were analyzed, including symptoms, time in the PC program, sedation, and place of death. **Results:** HM patients were older (77.4 vs. 72.2 years; $p < 0.001$), entered PC later (1,206 vs. 773 days from diagnosis; $p < 0.001$), and stayed for a shorter period (82.6 vs. 129.2 days; $p < 0.001$). Symptom burden at referral was similar (HM: 95.1%; ST: 97.7%), but fatigue-anorexia-cachexia was more frequent in HM (19.6% vs. 5.2%; $p < 0.001$), while pain was more common in ST. Emergency admission was less frequent in HM (46.2% vs. 71.8%; $p < 0.001$). Most patients died in hospital (HM: 67.9%; ST: 58.5%; $p = 0.012$), with no significant differences in the need for palliative sedation. **Conclusions:** HM patients are referred to PC later and less often, remaining for shorter durations despite comparable symptom burden. Early and tailored integration of PC into hematologic care is essential to improve quality of life in advanced stages.

Keywords: Palliative care. Hematological malignancies. Solid tumors. Symptoms. Quality of life. Sedation.

Resumen

Introducción: Los pacientes con tumores hematológicos (TH) suelen acceder más tarde y en menor proporción a los cuidados paliativos (CP) que aquellos con tumores sólidos (TS), a pesar de presentar necesidades similares. **Objetivos:** Este estudio analiza y compara la utilización de los CP entre ambos grupos en un hospital público de la Comunidad de Madrid. **Material y método:** Estudio observacional retrospectivo de 5188 pacientes (184 con TH, 5004 con TS) atendidos por la unidad de CP entre 2002 y 2023. Se recogieron datos clínicos, asistenciales y demográficos, incluyendo síntomas, tiempo en programa, uso de sedación y lugar de fallecimiento. **Resultados:** Los pacientes con TH eran de mayor edad (77,4 vs. 72,2 años; $p < 0,001$), con ingreso más tardío (1206 vs. 773 días desde el diagnóstico; $p < 0,001$) y menor permanencia en el programa (82,6 vs. 129,2 días; $p < 0,001$). Aunque la frecuencia de síntomas fue similar (TH: 95,1%; TS: 97,7%), la as-

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Date of reception: 11-11-2024
Date of acceptance: 23-04-2025
DOI: 10.24875/SANGREE.M25000033

Available online: 12-09-2025
Sangre (Eng). 2025;44(1):13-23
www.revistasangre.com

nia-anorexia-caquexia fue más prevalente en TH (19,6% vs. 5,2%; $p < 0,001$), mientras que el dolor lo fue en TS. El ingreso por urgencias fue menos frecuente en TH (46,2% vs. 71,8%; $p < 0,001$). La mayoría fallecieron en el hospital (TH: 67,9%; TS: 58,5%; $p = 0,012$), sin diferencias en la necesidad de sedación. **Conclusiones:** Los pacientes con TH acceden más tarde y menos frecuentemente a los CP, permaneciendo menos tiempo en el programa, pese a presentar una carga sintomática comparable. Es prioritario promover una integración temprana y adaptada de los CP en hematología para mejorar la calidad de vida en fases avanzadas.

Palabras clave: Cuidados paliativos. Tumores hematológicos. Tumores sólidos. Síntomas. Calidad de vida. Sedación.

Introduction

The use of palliative care is a common practice in the follow-up of oncology patients. Palliative care has evolved from being introduced only at the end of life to becoming an integral part of care throughout the course of the illness^{1,2}. However, it is known that patients with hematological tumors (HT) seem to have less and later access to palliative care services VS those with solid tumors (ST)^{1,2}, despite presenting comparable symptoms³.

Patients with ST, although referred for different pathologies, tend to have common characteristics throughout their illness⁴. Patients with HT present different factors that create specific barriers hindering their early care in palliative care units, such as the difficulty in establishing a prognosis that characterizes the disease as “advanced or refractory”⁵, disparate outcomes with therapies, hospital admissions due to sometimes fatal complications, the unpredictable course of the disease³, the bond created between patient and hematologist, sometimes using aggressive therapies until the last days of life, and institutional organizational problems that hinder the development of out-of-hospital therapies². All this complicates the early and comprehensive use of palliative care in patients with HT, making it difficult to satisfy the true wishes of patients in this final stage and achieve a better quality of life⁶.

In recent years, different countries and international organizations have recognized and promoted the early use of palliative care to significantly improve the quality of life of patients with advanced cancer³.

In Spain, various palliative care programs have been launched in the autonomous communities, especially promoted by the Ministry of Health and Consumer Affairs through the National Palliative Care Plan⁷. As in other countries, in our environment, the interest in palliative care in HT patients seems to be less than in those with ST, although an increase has been observed in recent years⁸. Knowledge about its use seems to be poorly studied and documented. Around 9.5% of all cancer deaths are caused by HT in the United States of America, while they represent only 0.4% of published studies².

In patients with ST, the symptomatic needs for which they are initially referred to these units are better known; however, there are few studies that address the reasons why HT patients are referred⁴.

For these reasons, we believed it was important to become aware of our own reality and conduct a study in a palliative care unit of a health area in the Community of Madrid (Spain) on the use of palliative care in HT patients, comparing them with ST patients. The main endpoint was to compare the frequency and characteristics of the use of the palliative care unit of our hospital internal medicine service between patients with ST and HT. Secondary endpoints included the analysis of demographic characteristics, time spent in the program, the need and causes of sedation, and place of death of the patients, as well as details of care episodes, such as the mean No. of admissions, length of stay, type of admission or assistance, and the characteristics of symptoms for both ST and HT.

Method

We conducted a descriptive observational retrospective study based on the database of the palliative care unit of the internal medicine service of *Hospital Severo Ochoa* in Leganés (Spain), a second-level center in Health Area 9 of the Community of Madrid, part of the Spanish Public Health Network. Patients without an oncological diagnosis were excluded from the study.

Demographic and clinical variables of 5188 patients from the medical oncology and hematology services were included, of which 184 had an HT diagnosis and 5004 an ST diagnosis, who had been admitted or were evaluated by interconsultation by the palliative care unit, from February 1st, 2002 through December 31st, 2023. We analyzed the care episodes of the patients (the times they were attended in the palliative care unit) during the recorded period: 8466 for ST patients and 225 for HT patients. Patients remain in the database from their admission or contact with the palliative care unit until their death or loss to follow-up.

Table 1. Demographic characteristics of patients, care episodes by tumor type, and time to inclusion in palliative care program

	Solid tumors	Hematological tumors	p
Patients, n (%)	5004 (96.5)	184 (3.5)	
Age at first admission, years, mean (SD)	72.23 (12.38)	77.4 (11.28)	< 0.001*
Male sex, n (%)	3193 (63.8)	94 (51.1)	0.001 [†]
Episodes, n (%)	8466 (94.4)	225 (2.6)	
Average admissions, mean (IQR)	1.70 (1-13)	1.2 (1-4)	
Stay, days, median (IQR)	5 (3-9)	6 (2-11)	0.9079*
Stay, days, mean (SD)	7.54 (8.92)	8 (9.34)	0.467*
Time in program, median (IQR)	33 (92) (SD, 325)	18 (35)	< 0.001*
Time in program, mean (SD)	129.17 (320.33)	82.62 (366.61)	0.091*
Time between diagnosis and program entry, mean, days (SD)	773.24 (1274.24)	1206.85 (1698.66)	0.004*

*Student's t-test.

[†]Chi-square test.

SD: standard deviation; IQR: interquartile range.

We defined HT patients as those with a primary hematological oncological disease, and ST patients as those with oncological processes without a hematological origin as the primary disease.

The data include information on patient characteristics (demographic data, duration in the palliative care program, need for sedation and its cause, death and place of death) and care episode characteristics (average admissions, days of stay, type of admission, requesting service, symptom characteristics, and underlying disease), for both ST and HT.

For data processing, SPSS V24 software was used. Quantitative variables are expressed as mean and standard deviation (SD), applying Student's t-test or Mann-Whitney test for hypothesis testing, as appropriate for parametric or non-parametric variables. Qualitative variables are expressed as absolute values and their relative percentages, using the chi-square test or Fisher's exact test for hypothesis testing, as appropriate.

Results

A total of 184 (3.5%) patients with HT and 5004 (96.5%) with ST were included. The mean age of patients on palliative care was higher in those with HT (77.4 years; SD, 11.28) than in those with ST (72.23 years; SD, 12.38) ($p < 0.001$). In the 2 groups, most patients were men (63.8% in HT and 51.1% in ST) ($p = 0.001$) (Table 1).

A total of 8466 care episodes were recorded in the palliative care unit for ST patients and 225 for HT patients;

they were more frequent in ST patients (mean of 1.7) than in HT patients (mean of 1.2). The time spent in the palliative care program was significantly shorter ($p < 0.001$) in HT patients vs ST patients (82.62 vs 129.17 days) (Table 1).

The time from diagnosis to entry into the palliative care program in HT patients was significantly longer (1206.85 days) than in ST patients (773.24 days) ($p = 0.004$) (Table 1). Patients were included in the palliative care program through hospital admission (emergency, scheduled, or transfer) and interconsultation assistance (from hospitalization or outpatient consultation). The number of episodes of HT patients who needed to be included in the palliative care program through the emergency department was lower than that of ST patients (46.2% vs 71.8%; $p < 0.001$). The differences were not significant between both groups for scheduled admissions or transfers. The hematology service made the most requests for admission to palliative care via interconsultation (Table 2).

The reasons for requesting interconsultation or admission to the palliative care program were symptom control and care organization in both groups. Analyzing the care episodes, a similar percentage of symptoms is observed (HT, 95.1% and ST, 97.7%), with no significant differences. Pain was the predominant symptom in ST, at 29.1%, while in HT it corresponded to 17.8% ($p < 0.001$). Dyspnea was evident in 20.6% of ST patients and 17.3% of HT patients, with no significant differences.

Table 2. Admission or assistance in the palliative care unit for care episodes by tumor type

Variable	Solid tumors	Hematological tumors	p
Episodes, n (%)	8466 (94.4)	225 (2.6)	
Type of admission or assistance (%)			
Emergency	6081 (71.8)	104 (46.2)	< 0.001
Transfer	593 (7.0)	21 (9.3)	0.186*
Scheduled	603 (7.1)	6 (2.7)	0.007*
Requesting service, total general (%)	8466 (100)	225 (100)	< 0.001*
Hematology	2 (0.1)	75 (33.3)	< 0.001 [†]
Emergency room	80 (0.9)	1 (0.4)	0.725 [†]
Internal medicine	612 (7.2)	25 (11.2)	0.037*
Palliative/HCST	201 (2.4)	3 (1.3)	0.498 [†]
Oncology	849 (10.0)	1 (0.4)	< 0.001 [†]
Other services	646 (7.6)	16 (7.2)	0.899*
Not collected	6076 (71.8)	104 (46.2)	< 0.001*

*Chi-square test.

[†]Fisher's Exact Test.

HCST: home care support team.

In HT patients, the presence of asthenia, anorexia, and cachexia stands out at 19.6%, a clinically significant percentage vs 5.2% of ST patients who presented them ($p < 0.001$) (Table 3).

No significant differences were found between HT and ST regarding hospital and out-of-hospital deaths. Most patients died in the hospital setting: 2925 (58.5%) of those with ST and 125 (67.9%) of those with HT; to a lesser extent, at home or in residences: 506 (10.1%) of ST and 14 of HT (10%) (Table 4).

A total of 17.3% of HT patients required sedation measures, with no significant differences vs ST patients, mainly due to agony (7.6%) and delirium/confusional syndrome (6.2%) ($p < 0.01$). Of ST patients, 12.7% required sedation, mainly due to delirium/confusional syndrome (4.8%) and dyspnea (3.2%) (Table 5).

We analyzed the underlying disease of the care episodes of HT and ST patients who were referred to the palliative care unit, as well as the causes of referral. The care episodes of HT patients that were referred in higher percentages were acute leukemias (37.8%), lymphomas (24%), and myelomas (23.5%). The main causes of referral were multiple in the different groups; among them, symptom control (infections in all groups; asthenia, anorexia, and agony in the myeloma group) and

Table 3. Symptom characteristics of hospitalization episodes by tumor type

Variable	Solid tumors	Hematological tumors	p
Episodes, n (%)	8466 (94.4)	225 (2.6)	
Symptoms, n (%)	8274 (97.7)	214 (95.1)	0.021*
Pain	2465 (29.1)	40 (17.80)	< 0.001*
Dyspnea	1747 (20.60)	39 (17.30)	0.243*
Fever	908 (10.70)	38 (16.9)	0.006*
Delirium	574 (6.80)	20 (8.9)	0.226*
Anorexia, asthenia, cachexia	440 (5.20)	44 (19.60)	< 0.001*
Nausea, vomiting	374 (4.40)	0 (0)	< 0.001 [†]
Asymptomatic	192 (2.30)	11 (4.9)	0.021*
Other	1766 (20.9)	33 (14.7)	0.024*

*Chi-square test.

[†]Fisher's Exact Test.

care organization (Table 6). Among ST patients, the highest percentage of care episodes were GI (37.99%) and pulmonary tumors (24.43%) (Table 7).

Throughout the years, there has been a progressively greater use, in absolute numbers, of palliative care services by HT patients, from 2014 until the end of 2023. The use, in absolute numbers, of the palliative care unit by ST patients has remained relatively similar since 2009.

Discussion

In our study, we compared the characteristics and absolute frequencies of the use of the palliative care unit of our hospital internal medicine service by HT and ST patients. In our series, the advanced age of HT patients at the time of their referral to palliative care stands out, showing significant differences. This may be because HTs have an increased incidence between the sixth and seventh decades of life^{9,10}, with a median of 70 years at diagnosis², in addition to the delay in referring patients to these units.

Although palliative care has now shifted from being introduced only at the end of life to becoming a comprehensive part of care², our study shows, like most published works, that the absolute frequency of its use is lower in HT patients than in ST patients^{1,4}, which may be due to the existence of different barriers to patient care. Families and patients often have limited knowledge of palliative care, considering it applicable only at the end of life. On the other hand, the inherent characteristics of hematological disease, with great difficulty in establishing prognosis, even in patients with similar

Table 4. Patient deaths and place of occurrence

Variable	Solid	Hematological tumors	p
Deaths, n (%)	4913 (98.2)	181 (98.49)	1.000*
Location, n (%)			
Home or usual residence	506 (10.1)	14 (10.0)	0.317*
Hospital	2925 (58.5)	125 (67.9)	0.012*
Unknown	1573 (31.4)	45 (24.5)	0.051*

*Chi-square test.

Table 5. Causes of patient sedation

Variable	Solid tumors	Hematological tumors	p
Sedation, n (%)	1077 (12.7)	39 (17.3)	0.054*
Cause of sedation, n (%)	73.85 (87.2)	187 (87.1)	0.085*
Agony	236 (2.8)	17 (7.6)	< 0.001*
Delirium or confusional syndrome	405 (4.8)	14 (6.2)	0.341*
Dyspnea	274 (3.2)	6 (2.7)	0.847*
Psychological distress	73 (0.9)	0 (0)	0.266†
Hemorrhage	34 (0.4)	0 (0)	1†
Seizure	10 (0.1)	0 (0)	1†
Intestinal obstruction	1 (0.01)	0 (0)	1†
Pain	48 (0.6)	0 (0)	1†

*Chi-square test.

†Fisher's Exact Test.

diagnoses, without clear criteria for categorizing hematological neoplasms as advanced or refractory⁵, can lead to a rapid deterioration of their clinical situation or improvement with treatment⁵. Many authors agree on the importance of establishing and detecting prognostic parameters that can predict when to refer these patients to a palliative care unit. Kripp et al.¹¹ established three risk groups: long, intermediate, or short survival. However, Odejide et al.¹² suggest that deterioration of quality of life is the most important factor in deciding when the patient has reached the end of their life.

Another factor that hinders early referral to palliative care units is the doctor-patient relationship; the hematologist, who has accompanied the patient throughout the course of the disease, tries to maintain a curative attitude until the end of life^{5,11,13,14}, and is more reluctant to send their patient to a specialized palliative care unit,

where the patient stays for less time. Perhaps this circumstance is also the reason why, in our series, we found that HT patients were admitted less frequently through the emergency room and a large percentage of them were attended by interconsultation to the palliative care unit. On occasion, as Hui et al.¹⁵ and other authors^{3,6,16,17} mention, aggressive therapies without a clear survival benefit are prescribed to severely deteriorated patients with a life expectancy < 1 month. To try to establish clinical criteria for their application, the European Society for Medical Oncology (ESMO) has established a specific clinical benefit magnitude scale for hematological therapies (ESMO-MCBS:H, Magnitude of Clinical Benefit Scale for Hematological malignancies)¹⁸.

However, this attitude of doctors is changing over time, advocating for early and comprehensive care. Therefore, like other authors^{16,19,20}, they agree with many hematologists on changing the name from “palliative care” to “supportive care.” According to one study, in the opinion of hematologists, “the early integration of supportive care alongside active treatment should be the model of choice in hematology settings to achieve the best outcomes and improved quality of life”²⁰.

Another influencing factor may be the organizational and political institutional levels, which fail to ensure that this out-of-hospital care arrives early and that HT patients are not excluded from access to comprehensive therapies that alleviate their true needs and improve their quality of life at the end of their days²¹. Home and out-of-hospital palliative care services have not adapted to patients with needs such as the use of broad-spectrum antibiotics, blood products, parenteral nutrition, and intravascular devices^{3,22,23}. In some countries, such as the United States, legislation has been established to allow the administration of blood products in the out-of-hospital palliative care setting²⁴. The benefits of early palliative care, the development of telehealth, and cooperation between caregivers and doctors in outpatient and home care settings are well demonstrated, but as various authors state, they have not yet been fully implemented in HT patients²⁵⁻²⁷.

In ST patients, the symptomatic needs for which they are initially referred to palliative care units are known, but there are few studies on the symptomatic causes of HT patients referred to these units⁴. In our analysis, in concordance with the study by Nada et al.¹, the total percentages of symptoms, for both HT and ST, were similar and numerically significant². However, the frequency of presentation of these symptoms differs from what was observed by other authors²⁸⁻³⁰. As in the series by Hochman et al.⁴, in our ST group, the most

Table 6. Primary diagnosis in care episodes of patients with hematological tumors

Primary diagnosis in patients with hematological tumors, no. of episodes: 225	Referral causes to palliative care	n	%
Acute leukemia 85 (37.8%)	Organization of care	26	30.6
	Asthenia, anorexia, agony	9	10.5
	Infections	26	31.7
	Hemorrhages	6	7.1
	Thromboembolic disease	1	1.2
	Poorly controlled pain	2	2.4
	Other causes: heart failure, tumor fever	15	17.8
Lymphoma 54 (24%)	Organization of care	10	18.5
	Asthenia, anorexia, agony	11	20.5
	Infections	9	16.9
	Hemorrhages	0	0
	Thromboembolic disease	0	0
	Poorly controlled pain	5	9.3
	Other causes	19	35.6
Multiple myeloma 53 (23.5%)	Organization of care	12	23.1
	Asthenia, anorexia, agony	4	7.7
	Infections	10	19.1
	Hemorrhages	1	1.9
	Thromboembolic disease	0	0
	Poorly controlled pain	8	15.4
	Other causes	18	34.5
Myelodysplastic syndrome 23 (10.2%)	Organization of care	6	28.6
	Asthenia, anorexia, agony	3	14.3
	Infections	6	28.6
	Hemorrhages	1	4.8
	Thromboembolic disease	0	0
	Poorly controlled pain	1	4.8
	Other causes	6	28.6
Chronic lymphocytic leukemia 5 (2.20%)	Organization of care	2	40
	Infections	1	20
	Hemorrhages	1	20
	Asthenia, anorexia, agony	1	20
Myeloproliferative syndrome 2 (0.92%)	Organization of care	1	50
	Other causes	1	50
Amyloidosis 3 (1.3%)	Organization of care	1	33.3
	Other causes	2	66.6

Table 7. Primary diagnosis in care episodes of patients with solid tumors

Primary diagnosis in patients with solid tumors No. of episodes: 8466	Referral causes to palliative care	n	%
Lung cancer or mesothelioma 2069 (24.43%)	Organization of care	93	4.5
	Asthenia, anorexia, agony	81	3.9
	Pain	251	12.1
	Infections	660	31.9
	Hemorrhages	49	2.3
	Thromboembolic disease	77	3.7
	Other causes: heart failure, tumor fever	858	41.5
GI cancer 3212 (37.99%)	Organization of care	194	6.0
	Asthenia, anorexia, agony	166	5.2
	Infections	621	19.3
	Hemorrhages	174	5.4
	Thromboembolic disease	107	3.3
	Poorly controlled pain	421	13.1
	Other causes	1529	47.6
Gynecological cancer 974 (11.5%)	Organization of care	50	4.9
	Asthenia, anorexia, agony	50	4.9
	Infections	191	18.7
	Hemorrhages	25	2.4
	Thromboembolic disease	39	3.8
	Poorly controlled pain	144	14.1
	Other causes	525	51.3
Head and neck cancer 658 (7.77%)	Organization of care	22	6.7
	Asthenia, anorexia, agony	10	3.0
	Infections	100	30.4
	Hemorrhages	16	4.9
	Thromboembolic disease	3	0.9
	Poorly controlled pain	62	18.8
	Other causes	116	35.3
Urological cancer 1136 (13.14%)	Organization of care	66	5.8
	Hemorrhages	46	4.0
	Asthenia, anorexia, agony	40	3.5
	Thromboembolic disease	35	3.1
	Poorly controlled pain	202	17.8
	Infections	304	26.8
	Other causes	443	39.0

(Continues)

Table 7. Primary diagnosis in care episodes of patients with solid tumors (*continued*)

Primary diagnosis in patients with solid tumors No. of episodes: 8466	Referral causes to palliative care	n	%
Neurological cancer 146 (1.68%)	Organization of care	27	18.54
	Asthenia, anorexia, agony	14	9.6
	Infections	19	13.0
	Hemorrhages	1	0.7
	Thromboembolic disease	6	4.1
	Pain	7	4.8
	Other causes	72	49.3
Skin cancer 94 (0.93%)	Organization of care	5	5.3
	Asthenia, anorexia, agony	5	5.3
	Infections	16	17.0
	Hemorrhages	5	5.3
	Thromboembolic disease	3	3.2
	Pain	13	13.8
	Other causes	47	40.0
Other tumors 1870 (21.63%)	Organization of care	289	15.5
	Asthenia, anorexia, agony	79	4.2
	Infections	476	25.5
	Hemorrhage	47	2.5
	Thromboembolic disease	92	4.9
	Pain	113	6.0
	Other causes	774	41.7

common reasons for referral to palliative care were poor pain control and dyspnea, while in the HT group, asthenia, fatigue, anorexia, and cachexia significantly predominated (19.6%). Other series have reported higher percentages, around 55% and 69%²⁹⁻³¹, with fatigue being the symptom that most deteriorates these patients' quality of life^{4,32}. This can be explained, as Allart Vorelli et al.³² indicate, by the pathophysiology of anemia due to hematological disease *per se* or treatment effects, although it is possible that anemia does not fully explain the cause of this symptom. Steensma et al.³³ found no correlation between the patient's hemoglobin levels and the symptom of fatigue, nor has a relationship with administered blood transfusions been demonstrated³⁴. Chan et al.³⁴ established criteria in an evidence analysis for the administration of blood products and antibiotics, for symptomatic improvement in these patients. Other

causes that may explain fatigue are the use of aggressive therapies in late stages of the disease, admissions to intensive care units, stem cell transplants⁴, treatment of elderly patients with significant comorbidity³⁵, and the association of psychological symptoms or psychiatric illnesses, along with the distress of families and patients not only associated with the disease but also with the wait for positive results³⁶.

In our series, most patients in both groups died in the hospital setting, with similar sedation needs in both groups. In a study conducted by the UK research network³⁶, it was observed, as in our series, that most deaths from HT occurred in the hospital (58%), but that the preferred place for most patients, although with differences due to various factors, was out-of-hospital³⁶. Conversely, the study by Howell et al.³⁷ found a significant number of HT patients who preferred to die in the

hospital. Similarly, Kirtane et al.³⁸ analyzed treatment differences during the last 30 days of life in 9468 patients with ST and HT and found that those with HT had higher rates of hospitalization and intensive care, were more likely to die in the hospital, and had less advanced palliative care planning^{38,39}.

The time spent in the palliative care program was significantly shorter in the HT group, similar to other studies⁴⁰ which found a median of 14 days in hematological patients and 2-3 months in ST patients.

The early use of palliative care during the course of the disease can help improve the quality of life of these patients, sometimes avoiding aggressive therapies without clear benefit⁴. In our series, the time from diagnosis to the use of palliative care was significantly longer in HT patients than in ST patients.

Regarding STs, the most frequent in our series were GI and pulmonary tumors, possibly due to their higher prevalence in the population. Of the HTs, most were acute leukemias, lymphomas, and myelomas. The referral criteria were symptom control (infections, asthenia, and agony) and the organization of palliative care. For some authors, such as Tsang and LeBlanc⁴¹, different types of HT should be grouped to better understand their unique needs and experiences, and to define different approaches that can improve the lives of patients. Aggressive lymphomas can produce a rapid physical decline (fever, night sweats, and neurological complications), while indolent lymphomas produce a gradual worsening that makes it difficult to know when palliative care is needed. Myeloma patients have unique complications that require lifelong treatment, such as pain, fatigue, neuropathy, pathological fractures, and kidney disease⁴¹. In our series, the number of myelomas was not as high as we might expect, where pain has a high prevalence; in some studies, such as Derio Palacios et al.⁴², it reaches 96.7%, being one of the main causes of referral in some literature reviews⁴³. This circumstance may be due to the experience of the hematologists in our service in treating this symptom and the help of pain units, although some patients were referred due to very poor control and poor response to treatment. With the incorporation of new therapies, such as chimeric antigen receptor T-cells (CAR-T), some studies have found a 31% use of palliative care, which has helped with symptom management and advance care planning and complex decision-making⁴¹.

The percentage of HT patients who used palliative care in relation to the total number of patients with registered neoplasms in our series was 3.54%, lower than in series presented in other countries, such as

Hochman et al.⁴ (8.7%). The mortality percentage for these types of cancers is very low vs the total cancer deaths, which in the United States of America is approximately 9.8%⁴⁴ and that reported in Spain by the Spanish Society of Medical Oncology in 2022 for the period of 2020 was 7.42%⁴⁵. In STs, the percentage relative to the total registered neoplasms (96.4%) is close to the mortality rate associated with these tumors in relation to total cancer deaths in Spain, which was 92.57% in 2020⁴⁵. These findings demonstrate insufficient referral of HT patients to palliative care services vs ST patients.

We have observed, similar to Rao et al.⁴⁶, that in our series there has been a clear increase over the years in the number of hematological patients who are referred to the palliative care unit, except in 2021, when the number decreased, perhaps due to the consequences of the COVID-19 pandemic. This evidenced increase may be due to a greater awareness on the part of the specialists in these palliative care units and of the benefits they can offer their patients.

Conclusions

In our environment, the use of palliative care services for HT patients is lower, in absolute terms, than for ST patients, consistent with medical literature.

HT patients were older and presented a similar percentage of significant symptoms to ST patients when referred to the palliative care unit. Symptoms of asthenia, anorexia, and cachexia were significantly more predominant in the HT group compared to the ST group, possibly due to their referral in later stages of the disease.

In general, the reason for referral was symptom control and the organization of end-of-life care. Most patients died in the hospital setting.

HT patients are referred to palliative care units in a smaller proportion and at a more advanced stage, so they remain in these programs for less time, probably related to the special characteristics of these tumors and the high involvement of the hematologist in maintaining an active attitude until the end of life.

In our series, in recent years there has been an increase in the use of palliative care in HT patients, related to a greater awareness of these services by physicians.

Our findings indicate the need to understand and optimize the use of palliative care in the population of HT patients to provide patients with comprehensive, early, and quality care (associating treatments with

curative intent), promoting and improving hospital care, and especially out-of-hospital care, trying to overcome the barriers that restrict access to palliative care at the end of life. Stepped care can be an alternative; patients receive more care in relation to their needs⁴⁷. All this is consistent with the World Health Organization's definition of palliative care, which argues that "patients with life-threatening diseases, not just those with incurable diseases, must be addressed"⁴⁸. In the field of medicine, it is essential not only to prolong life, but also to help patients achieve a good death⁴⁹.

In May 2024, the American Society of Clinical Oncology published an adaptation of its clinical practice guidelines establishing evidence-based guidelines for the integration of palliative care in oncology. Oncologists should refer patients with advanced STs and HTs to a specialized interdisciplinary palliative care team that provides outpatient and inpatient care from the beginning of the illness, along with active cancer treatment⁵⁰.

Acknowledgements

To Dr. S. Plaza-Canteli, former head of the palliative care unit at Hospital Severo Ochoa.

Funding

None declared.

Conflicts of interest

None declared.

Ethical considerations

Protection of individuals and animals. The authors declare that no experiments on human beings or animals have been performed for this research.

Confidentiality, informed consent, and ethical approval. The study does not involve personal patient data and does not require ethical approval. SAGER guidelines do not apply.

Declaration on the use of artificial intelligence. The authors declare that they did not use any type of generative artificial intelligence for the drafting of this manuscript.

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