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## BRIEF REPORT

# Symptom evaluation of oncologic patients in the emergency department

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### CONFLICT OF INTEREST:

None

**Objectives:** To describe the profile of the oncologic patient seen in the emergency department of a tertiary hospital and to analyze the reasons for consultation and the clinical management of the symptoms that gave rise to the consultation.

**Method:** Between October 2007 and March 2008, we performed a prospective, descriptive study in which we recorded the characteristics of all the oncology patients seen in the emergency department of our hospital, together with the reasons for consultation and the clinical management.

**Results:** A total of 251 patients were seen (mean, 12 patients/wk). Categorized according to the primary tumor, 65 patients (25.9%) had lung cancer, 47 (18.7%) colorectal cancer, and 32 (12.7%) breast cancer. One hundred eighty-five (73.7%) had metastatic disease and 133 (52.9%) were receiving chemotherapy. The most common reasons for consultation were fever (46 cases, 18.3%), tumor-related pain (39 cases, 15.5%), dyspnea, (36 cases, 14.3%), and nausea and vomiting (28 cases, 11.2%). After evaluation in the emergency department, 121 patients (48.2%) required admission.

**Conclusions:** Patients with metastatic tumors and those receiving active treatment make the greatest demands on emergency departments and almost half the oncology patients seen in the emergency department required hospital admission. [Emergencias 2009;21:186-188]

**Key words:** Emergency services. Palliative care. Neoplasm.

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## Introduction

In recent years there has been a progressive increase in the prevalence of cancer, fortunately due to increased survival of these patients<sup>1</sup>.

They may present urgent medical or surgical complications related to primary tumor, metastasis or systemic effects of the tumor<sup>2</sup>. They may also present non-oncologic emergencies, such as gastrointestinal bleeding or myocardial infarction. In recent years antitumoral treatments have appeared whose mechanisms of action differ from those of classical chemotherapy, with different and specific toxicities. The current trend is to use chemotherapy or radiotherapy to treat older patients or those with associated comorbidities, which makes them more likely to develop complications<sup>3</sup>.

Traditional oncological emergencies, such as spinal cord compression or tumoral hypercalcemia are well known and commonly handled in

the emergency department (ED)<sup>4,5</sup>. But the presentation of cancer patients in ED is not always for these reasons. Patients with advanced cancer usually only require palliative care; in order to obtain rapid access to the public health system, they often present at the ED. The terminal cancer patient usually has asthenia, anorexia, pain and weakness<sup>6</sup>. This evidence was mainly obtained from patients in the later stages of the disease who were receiving home palliative care. The development of palliative home care units has greatly improved the attention these patients receive, besides being beneficial to the health system from the viewpoint of cost-effectiveness<sup>7,8</sup>. However, there is currently little information to assess the care of cancer patients provided by the ED.

The aim of this study was to describe the oncological population attended by an ED of a tertiary hospital, to examine their reasons for consultation and clinical management.

## Method

From October 2007 to March 2008, we performed a prospective descriptive study, approved by the hospital Ethics Committee. The setting was our hospital ED. The hospital is an 800-bed tertiary hospital serving approximately 300,000 people, with a daily mean 350 patients being attended by the ED.

After initial assessment by the ED physician, each cancer patient was re-evaluated by a medical oncologist, as is standard practice in the hospital. After the initial assessment, informed consent was obtained for inclusion in the study. In addition to demographics, the following data were recorded: symptom or sign motivating the ED consultation (grouped into nine categories: fever, acute abdominal pain, tumor-related pain, dyspnea, skin lesions, neurological, bleeding, nausea, vomiting and cough) primary tumor, tumor stage, treatment with chemotherapy at that time, diagnosis and decision made at ED (discharge, observation or admission). Data from all the consultations were included in the statistical analysis.

The results are expressed in absolute and relative frequencies; we analyzed the prevalence of consultations for primary tumor, tumor stage, and the reasons for consultation. We also recorded the frequency of hospital admissions.

## Results

A total of 251 cancer patients were attended, with a mean 12 cases per week. The symptoms most frequently leading to ED consultation were: fever 46 cases (18.3%), tumor-related pain 39 cases (15.5%), dyspnea 36 cases (14.3%) and vomiting & nausea 28 cases (11.2%), as shown in Table 1. Regarding the type of primary tumor, 65 patients had lung cancer (25.9%), 47 colorectal cancer (18.7%) and 32 had breast cancer (12.7%) (Table 2). Of the total, 185 had metastatic disease (73.7%) and 89 of them (48%) were receiving active chemotherapy at that time. Of the 60 patients diagnosed with localized disease (stages I-III), 44 patients (73%) were receiving chemotherapy.

After evaluation in the ED, 121 patients (48.2%) required hospitalization in the Medical Oncology and Palliative Care Unit for treatment or further study. Ninety nine patients (39.4%) were discharged from the ED and 31 patients (12.4%) required 24h medical observation.

**Table 1.** Reasons for consultation in the emergency department

	Cases	Percent (%)
Fever	46	18.3
Tumor-related pain	39	15.5
Dyspnea	36	14.3
Nausea, vomiting	28	11.2
Neurological	22	8.8
Acute Abdomen	22	8.8
General deterioration	15	6.0
Hemorrhage	13	5.2
Skin lesions	6	2.4
Cough	4	1.6
Other	24	8.0
<b>Total</b>	<b>251</b>	<b>100</b>

## Discussion

Cancer patients require urgent medical attention for many different reasons.

Symptoms such as fever, dyspnea, or pain may be the manifestation of a vital emergency situation<sup>9</sup>. However, these complaints are more often not life-threatening, but they do worsen the quality of life<sup>10</sup> and constitute the most common reasons for seeking urgent medical attention. The identification and management of these circumstances in the ED is an important issue due to the increased number of these patients and the medical emergency that may underlie these symptoms.

In the first evaluation of the cancer patient, it is necessary to distinguish whether a rapid and aggressive treatment is indicated or not, or alternatively whether palliative and supportive treatment would be more successful, despite the severity of an acute complication. The first situation, usually involving patients with tumors and active treatments, may require intensive care like that carried out in non-cancer patients. In the second situation, usually involving terminal stage patients, should be quickly recognized to be able to offer adequate support and care<sup>11</sup>.

**Table 2.** Primary tumor

	Cases	Percent (%)
Lung	65	25.9
Colorectal	47	18.7
Breast	32	12.7
Biliopancreatic area	17	6.8
O.R.L.*	13	5.3
Prostate	13	5.2
Urologic	12	4.8
Sarcoma	12	4.8
Gastroesophageal	12	4.8
Hypernephroma	6	2.4
Gynecological	4	1.6
Other	9	3.6
<b>Total</b>	<b>251</b>	<b>100</b>

\*Tumor of the otorhinolaryngological area.

**Table 3.** Chemotherapy by stage at the time of consultation

Stage	Chemotherapy	
	No [n (%)]	Yes [n (%)]
I	1 (1.0)	2 (1.5)
II	7 (6.7)	14 (10.5)
III	5 (4.8)	28 (21.1)
IV	92 (87.6)	89 (66.9)
<b>Total</b>	<b>105 (100)</b>	<b>133 (100)</b>

The most frequent reasons for cancer patient visits to ED are fever, pain secondary to the tumor and dyspnea. Patients with disseminated disease and those actively receiving chemotherapy are those most likely to seek urgent medical attention. It would be useful for staff to know the specific toxicities of the latest drugs used in chemotherapy to improve the clinical management of these patients<sup>12</sup>.

Most cancer patients who visit the ED require hospitalization. This fact may demonstrate the severity of acute disease or the complexity of managing the symptoms.

This study may contribute to knowledge about the oncological population seeking urgent medical attention and therefore help to improve the care provided. Identifying subgroups of patients only needing palliative care can facilitate clinical management in emergencies, prevent unnecessary testing and optimize human and material health system resources.

It would be reasonable to investigate whether the existence of palliative home care units modifies the number or characteristics of cancer patients consulting the ED.

Further studies are needed to analyze cancer patient demands for ED attention so that their needs are identified and alternatives evaluated, which could help improve their quality of life by avoiding their passage through emergency departments.

## Addendum

Presented at the 44th Annual Meeting of the American Society of Clinical Oncology, and the 33rd European Society of Medical Oncology Congress.

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## Evaluación sintomática del paciente oncológico en urgencias

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**Objetivos:** Describir el perfil del paciente oncológico atendido en el servicio de urgencias de un hospital terciario, los motivos de consulta y su manejo clínico.

**Método:** Desde octubre de 2007 a marzo de 2008, se recogieron las características de estos pacientes junto con los motivos de consulta y el manejo clínico de los pacientes oncológicos en el servicio de urgencias.

**Resultados:** Se atendieron un total de 251 pacientes (12 pacientes/semana): 65 pacientes padecían cáncer de pulmón (25,9%), 47 padecían cáncer colorrectal (18,7%), y 32 cáncer de mama (12,7%). De todos ellos, 185 tenían enfermedad metastásica (73,7%) y 133 recibían tratamiento quimioterápico (52,9%). Los motivos de consulta más frecuentes fueron fiebre en 46 casos (18,3%), dolor relacionado con el tumor en 39 casos (15,5%), disnea en 36 casos (14,3%) y náuseas-vómitos en 28 casos (11,2%). Tras la atención urgente, 121 pacientes precisaron ingreso hospitalario (48,2%).

**Conclusiones:** Los pacientes metastásicos y aquellos que están en tratamiento activo son los pacientes oncológicos que más demandan atención urgente y casi la mitad precisan ingreso hospitalario. [Emergencias 2009;21:186-188]

**Palabras clave:** Servicios de urgencias. Cuidados paliativos. Neoplasia.