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Characterization of the palliative management of patients with stage IV gastrointestinal tract cancer in a hospital in southern Colombia

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Abstract

Introduction: Gastrointestinal neoplasms are a group of malignant pathologies that cause high indices of morbimortality throughout the world. when diagnosed around 35% of cancer patients are classified as stage IV. Knowing the increasing incidence of gastrointestinal tumors and the need to offer care to those in advanced stages, it was necessary to characterize the palliative care offered to stage IV gastrointestinal cancer patients in the southern region of Colombia

Materials and methods: All patients with ICD-10 diagnosis of esophageal, gastric, colon and rectum cancer classified as clinical stage IV. Data collection was obtained from the clinical records of the patients and registered into an excel Version 15.31 design instrument. Data was analyzed using standard descriptive statistics. Statistical analysis were performed using Stata 15 ®.

Results: 285 were included. majority were male 63.16%, the average age was 61.08 years. The most frequent tumors found were those located in the stomach corresponding to 54.74% of the cases and of these the antral tumors were most reported 19.3%. The palliative management strategies for the group of patients studied were mostly aimed at medical management, especially related to comfort support measures in 55.09%

Conclusions: Stage IV gastrointestinal neoplasms were characterized alongside with their palliation strategies. The most frequent palliation treatment was based on comfort measures, invasive strategies are considered an option. More studies are required to optimize the data collection and diminish bias risk.

Keywords: Palliative care; Gastrointestinal cancer; Esophageal cancer; Colorectal cancer; Gastric cancer.

1. Introduction

Gastrointestinal neoplasms are a group of malignant pathologies that cause high indices of morbimortality throughout the world; in 2020, GLOBOCAN reported for that year 3.624.793 cases distributed in frequency as follows: colorrectal 1 931 590, gastric 1 089 103 y esophageal 604 100(1). With mortality rates over 12, 9.9 y 7 per every 100.000 habitants respectively(2). These pathologies can be cured in 50% of cases if diagnosed in early stages but unfortunately around 20% of colorrectal cancer patients have uncurable disease(3,4). when diagnosed around 35% of gastric cancer patients are classified as stage IV (5). Life prognosis when stage IV disease is documented is unfavorable with life expectancy to 5 years of 5% (4,6). In consideration to their poor prognosis, they require palliative care defined as integral care of those who suffer a severe disease, without age consideration, with the objective of improving their quality of life, from the

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ones who care for them and their families; without caring for their age group and specially those who are at the end of life(7).

Knowing the increasing incidence of gastrointestinal tumors and the need to offer care to those in advanced stages, it was necessary to characterize the palliative care offered to stage IV gastrointestinal cancer patients in the southern region of Colombia during a period of 5 years.

2. Material and Methods

2.1. Study design, patient population and data collection

All patients with ICD-10 diagnosis of esophageal, gastric, colon and rectum cancer classified as clinical stage IV (according to the Tumor Node Metastasis [TNM] that were Hospitalized at Hernando Moncaleano Perdomo Hospital from January 1st of 2015 to December 31st of 2020 were included. The patients that were taken to another center, whose clinical records after discharge were not digitally available, without histological confirmation or was not written in the clinical history, and patients with cognitive impairment that didn't allow them to express their symptoms. Data collection was obtained from the clinical records of the patients and registered into an excel Version 15.31 design instrument. Data was collected retrospectively and all sociodemographic data as well as symptoms causing patients admission, palliative care given through hospitalization were included (understood as best supportive care, stent placement, chemotherapy, radiotherapy, combinations of these, placement of ostomies, among others) Tumor location was recorded base on ICD code and in consideration to endoscopic, tomographic description.

Symptom relieve was evaluated by the patient perception of pain control; no new episodes of emesis no specific scale was employed.

2.2. Statistical analysis

Data from the medical records registered in the instrument were analyzed using standard descriptive statistics. Kaplan–Meier method was used for calculating survival curves and the log rank test was used for comparison. Chi-squared tests were used for comparison between variables. Statistical analysis were performed using Stata 15 ®.

2.3. Ethical considerations.

The study was approved by Hernando Moncaleano Perdomo Hospital Ethics committee. Patient consent was not required.

3. Results

In the University Hospital of Hernando Moncaleano Perdomo for the period studied there were 1,168 patients with the ICD-10 diagnoses selected as inclusion criteria. Of this group of patients, those who had outpatient medical records were discarded since not all of them were digitized for the period studied, thus reducing the risk of selection bias. From the discarding of these histories, a total of 721 patients remained, of which a complete review of the available digital clinical histories was carried out, the defined inclusion criteria were applied, obtaining a sample of 285 patients (Figure 1).

Of the total number of patients included in the study, the majority were male 63.16%, the average age was 61.08 years and 76.84% of them were affiliated with the subsidized health regimen. The most frequent tumors found were those located in the stomach corresponding to 54.74% of the cases and of these the antral tumors were mostly reported 19.3%. The rest of the most frequent sociodemographic variables are listed in Table 1.

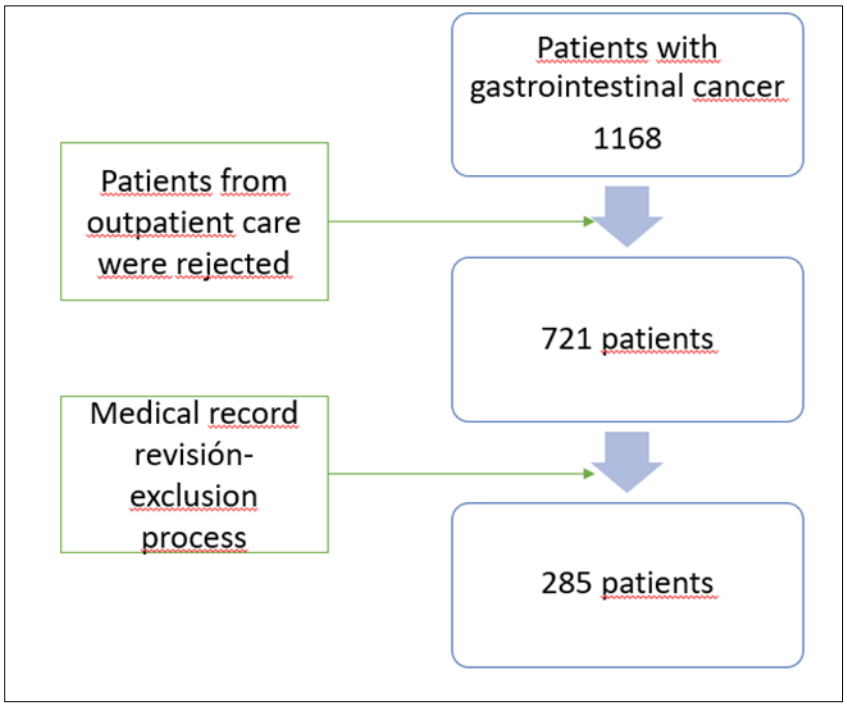

Figure 1 Selection of patients

Table 1 Report of patient frequencies and characteristics

Variable	**n=285**	**Percentage (%)**
Gender Male	180	63.16%
Subsidized social security regime	219	76.84%
Age (mean, SD)	61.08 (15.79)	
Height (mean, SD)	152.5 (37.5)	
Weight (mean, SD)	56.87 (14.40)	
Cancer location		
Esophagus	49	17.19%
Stomach	156	54.74%
Colon	41	14.39%
Straight	39	13.68%
Histological type of cancer		
adenocarcinoma	242	84.91%
adenosquamous cell	3	1.05%
squamous cell	33	11.58%
nonspecific	3	1.05%
lymphoma	one	0.35%
neuroendocrine	3	1.05%

Distant metastatic involvement		
Yes	232	81.40%
No	53	18.6%
Vital status at last control		
Alive	207	72.63%
Dead	78	27.37%

Within the group of gastrointestinal tumors evaluated by segments, tumors of the gastroesophageal junction were the most frequent with respect to those of the different esophageal portions, corresponding to 13.3% of the total sample, gastric tumors had already been described previously, colonic tumors had a similar distribution between those of the right and left colon, being found with equal frequency (4.56%) in the ascending and iliopelvic colon. Of the rectal tumors, those of the lower portion were found the most with a percentage of 7.02% compared to the sample.

The histopathological characteristics of the tumors evaluated, it was found that adenocarcinomas corresponded to 84.91%, this variety being found with a greater relationship in gastric tumors in 151 cases. Regarding the degree of tissue invasion and lymph node involvement, there was no adequate record of these data in the medical records, therefore no conclusion can be drawn from them.

The relationship between the histological variety of tumors and the degree of tissue differentiation makes it possible to show in the studied sample that for the two most frequent histological varieties (adenocarcinoma and squamous cell carcinoma) and the moderately differentiated tumors were mostly found.

Of the group of patients studied, the most frequent reason for consultation was poor control of pain (23.16%), followed by upper gastrointestinal obstruction and bleeding with respective frequencies of 21.05% and 17.54%. The rest of consultation diagnosis are described in Table 2. The average length of stay of these patients in hospitalization was 13.5 days (SD 10.7), 3.15% required a stay in the intensive care unit with an average length of stay of 0.24 days (SD 1.69).

Table 2 Consultation diagnosis/symptom

Oncological complication that prompted consultation	**Frequency**	**Percentage**
Bleeding	50	17.54%
Upper digestive obstruction	60	21.05%
Lower digestive obstruction	14	4.91%
Uncontrollable emesis	8	2.81%
Intense pain	66	23.16%
Uncontrollable emesis and severe pain	41	14.39%
Ascites	6	2.11%
Dyspnoea	3	1.05%
Other	15	5.26%
Severe pain and ascites	10	3.51%
Bleeding and emesis	3	1.05%
Obstruction, bleeding and ascites	1	0.35%
Viscera perforation	8	2.81%
Total	285	100.00%

The palliative management strategies for the group of patients studied were mostly aimed at medical management, especially related to comfort support measures in 55.09% of the cases, followed in order of frequency by this

management in conjunction with chemotherapy in 19.65% and associated with chemoradiation therapy in 10.18%. Percutaneous management was performed in 51 patients and paracentesis was the method of choice in 7.72% of cases. Endoscopic management, on the other hand, was received by 70 patients, stent insertion was performed in 16.49% of the total sample. Additionally, 96 patients underwent surgical management in 30 of those patients, palliation intervention was not feasible.

4. Discussion

Gastrointestinal neoplastic pathologies represent one fourth of the neoplastic pathology in the world and during the last year in Colombia a growing increase in the incidence of these pathologies has been documented, which bring with them a high burden of morbidity and mortality (1,8).

These pathologies are usually more prevalent in the population over 60 years of age, as demonstrated by this study and according to what was found by Jorrit L. Opselten et al (9), Barbara Daly et al (10)and regional statistics, among others (11)

No studies have been reported so far in which the different types of gastrointestinal tumors are found to compare the frequency of presentation of each one, with this study however, it is clear that one of the biggest problems in terms of tumor pathology is gastric cancer in Colombia, with very high incidences of stage IV disease, as shown in this study and according to statistics from the region (11–13).

Considering the high prevalence of gastric cancer, the vast majority of these emerged from the gastric antrum as reported by Novick et. Al (12)in his study. In the case of colonic tumors, unlike what is reported in the literature in which a more frequent presentation of sigmoid tumors is evidenced, in the case of this study a similar frequency of presentation was obtained in tumors of the proximal colon and distal (14).

The histopathological tumor presentation profile differs from the literature only in esophageal cancer, since squamous cell cancers are more frequently documented, but in this study a higher frequency of adenocarcinomas was found; this in relation to a greater presentation of tumors of the esophagogastric junction in the sample studied (9). For the rest of the tumors, both gastric and colorectal, the data were similar to those reported in the global literature (11,12,15).

According to the data found, palliation focused on comfort measures and medication to control symptoms beyond management with either systemic or local chemotherapeutic agents or radiotherapy, differing from what is reported in the literature for the different types of cancer studied (9,12,16). Among the surgical management options, resective surgeries with palliative intent are reported worldwide, however, in the case of our results, the procedures performed were all with diverting intent (12,14). therefore, the frequency of surgical procedures performed is lower.

Endoscopic management was performed mainly in patients with esophageal and gastric cancer pathology as described in the literature (5,17).

The use of decompressive methods due to tumor compromise of serous surfaces as part of palliative management was not described in the reviewed literature, but it should be noted that it greatly contributed to the control of the symptoms that caused consultation in the patients studied.

The limitations of this study were multiple, the vast majority in relation to the poor availability of information regarding the primary tumor in patients with advanced neoplastic pathology, this is probably related to multiple hospital admissions that favor the staff who care for them to know their case. and does not consider the complete collection of information pertinent. For this reason, several clinical histories were discarded, since they did not meet all the inclusion criteria nor did they allow the completion of the variables, considering selection bias. For what is suggested, prospective studies should be carried out in which there is clarity of the variables to be collected to reduce the possibility of this bias.

Additionally, in a group of patients it was not possible to evaluate their follow-up and final condition after the initial approach due to the absence of new consultations or the absence of digital data from them. To reduce this bias, only the inclusion of patients with a requirement was considered. of hospital stay.

stage IV neoplastic pathology, however the sample size was sufficient to obtain results similar to those reported globally.

5. Conclusions

Incidence of neoplastic pathologies are rising throughout the years; Gastrointestinal tumors are highly prevalent in Colombian southern region and unfortunately the majority of them are diagnosed stage IV being pain and obstructive symptoms the major cause of visits to the emergency department. Better palliative strategies to optimize comfort and alleviation of symptoms are needed to improve quality of lives in this group of patients. Also, additional studies with a lower level of bias are required to obtain information with a lower range of error.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of ethical approval

The present study was approved by the Ethics Committee Of the Hernando Moncaleano Hospital.

Statement of informed consent

Informed consent was not required.

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