

Characterization of Patients with Gastrointestinal Bleeding From the 15th Health Regional Attended At Memorial Uningá Hospital

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Abstract

Acute gastrointestinal bleeding cases, whether upper or lower, are considerably common medical emergencies, requiring accurate diagnosis to provide appropriate treatment for each patient and thus avoid longer hospitalization times and costs. In early 2022, Memorial Uningá Hospital positioned itself as a reference center for treating such patients originating from the 15th Health Regional of Maringá, allowing for a cross-sectional observational study using secondary data from electronic medical records. This work aims to gather such data and evaluate its impact within the hospital routine. During the study period, a total of 114 patients with the diagnosis of the disease were treated. The prevalence was 85.4 cases per 1000 admissions. Regarding deaths, 18 were recorded, with an average age of 74.8 years for these patients and occurring equally between sexes, resulting in a lethality rate of 157.8 per 1,000 cases. The most important risk factors that may be related to the evolution and occurrence of bleeding can be considered the use of nonsteroidal anti-inflammatory drugs (NSAIDs), anticoagulant use, smoking, and alcoholism. Thus, through this study, it was possible to conclude that, as found in current literature, gastrointestinal bleeding cases still present a high incidence in society today. The bleeding etiologies are variable and have changed in frequency over the years. Knowledge of these variations is essential for improving the management of these patients, allowing for the development of protocols aimed at minimizing failures in this type of care.

Keywords: Hemorrhage. Digestive. Acute. Upper. Lower.

Introduction

Digestive hemorrhage, in addition to having significant clinical and economic repercussions, constitutes a frequent medical emergency. Precise diagnosis is essential to achieve a better prognosis and reduce in-hospital mortality, given its association with considerable mortality rates (Franco et al., 2015; Saltzman, 2018).

Gastrointestinal bleeding is defined as the loss of blood from the gastrointestinal (GI) tract and its appendages (Martins et al., 2020). It can be stratified as follows: Upper gastrointestinal bleeding (UGIB) refers to bleeding from lesions in the upper gastrointestinal tract (esophagus, stomach, and duodenum), occurring before the ligament of Treitz, and is commonly associated with hematemesis (vomiting of bright red blood) or melena (fetid, dark stools or coffee-ground vomitus) or cases of obscure origin bleeding (Franco et al., 2015; Saltzman, 2018). Bleeding occurring beyond this point is defined as lower gastrointestinal bleeding (LGIB) and is more

frequently associated with hematochezia (presence of bright red blood in stools) (Martins et al., 2020).

The incidence of UGIB is estimated to be 50 to 150 cases per 100,000 people annually. Compared to LGIB, its frequency is four times higher. Reports indicate that 35% to 45% of UGIB cases occur in patients aged 60 years or older, and within this group, 60% occur in women. Considering its morbidity and mortality worldwide, it can be regarded as a medical emergency and a dramatic event. The mortality rate is high, ranging from 0.9% to 26.5% (Castro, 2014).

At the beginning of 2022, Memorial Uningá Hospital became a reference center for treating this type of patient from the 15th Regional Health Department of Maringá. Given that it is a medical emergency associated with significant morbidity, mortality, and high-cost hospitalizations, this study aims to survey the number of patients referred to the hospital and

their respective management and outcomes. By analyzing these data, the study seeks to establish a protocol to guide the management of such cases, which will lead to higher success rates in addressing this condition and, consequently, have a positive impact on society.

Method

Observational cross-sectional study using secondary data from electronic medical records of patients from the 15th Regional Health Department of Maringá, who were admitted with a presumptive diagnosis of gastrointestinal bleeding at Memorial Uningá Hospital from March to October 2022.

The research included patients who were admitted with suspected upper or lower gastrointestinal bleeding. Exclusion criteria included patients referred to the service without a diagnostic hypothesis of gastrointestinal bleeding, patients who did not present signs of bleeding during hospitalization, and patients with inconclusive medical records.

Data collection was carried out through electronic medical records using the Tasy software. The following variables were collected: age, sex, comorbidities, hospitalization period, initial diagnostic hypothesis (UGIB, LGIB, or unspecified gastrointestinal bleeding), presence of suggestive signs such as melena, hematemesis, hematochezia, or a previous diagnosis of esophageal varices, recent use of nonsteroidal anti-inflammatory drugs (NSAIDs), history of alcohol or tobacco use, and case outcome.

The study selected the following indicators: a) Incidence rate, calculated by dividing the number of new cases by the total hospitalized population during the period, multiplied by 1,000; b) Prevalence rate, calculated by dividing the number of known cases by the total hospitalized population during the period, multiplied by 1,000; c) Case-fatality rate, calculated by dividing the number of deaths by the population diagnosed with gastrointestinal bleeding, multiplied by 1,000; d) Mortality rate, calculated by dividing the number of deaths by the total hospitalized population during the period, multiplied by 1,000.

Data were tabulated and analyzed using Microsoft Excel. Qualitative data were presented as simple and relative frequencies. The project

was approved by the Research Ethics Committee approval no. 5.787.875/2022.

This study period (March to October 2022) was the only one during which Memorial Uningá Hospital was established as a reference center for treating gastrointestinal bleeding cases, not making it possible to include statistical data from subsequent years beyond 2022.

Results

During the study period, there were a total of 121 admissions of patients with a presumptive diagnosis of gastrointestinal bleeding. After analyzing the medical records, 5 cases were excluded due to lack of hospital records or incomplete records, and 2 were excluded due to negative diagnoses, resulting in a total of 114 patients diagnosed with the disease.

In evaluating the admissions, the prevalence of cases in the hospital was 85.4 cases per 1,000 admissions, meaning that out of every 1,000 patients admitted to the institution, 85 had gastrointestinal bleeding. Regarding incidence, June had the highest occurrence of cases, with 25 cases and an incidence rate of 173.6 cases per 1,000 admissions, as shown in Figure 1.

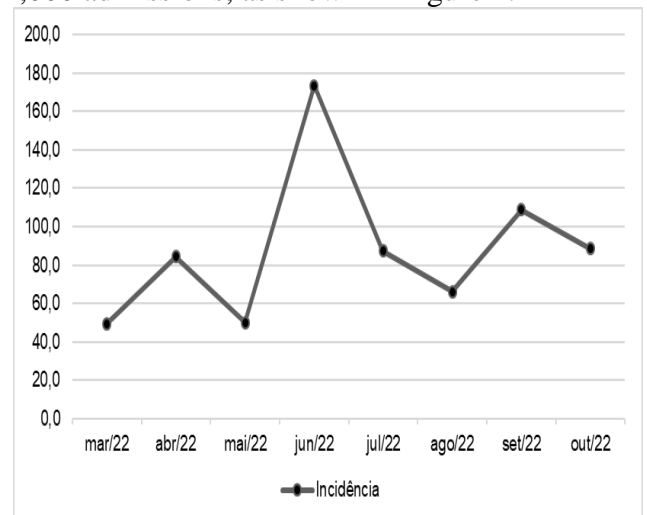


Figure 1: Incidence of cases of Digestive Hemorrhage at Memorial Uningá Hospital - March to October 2022. Developed by the authors.

Regarding deaths, there were 18 deaths due to the disease. The average age of these patients was 74.8 years, with the oldest being 91 years and the youngest 46 years. These deaths occurred equally among genders, with 9 men and 9 women. The case-fatality rate during the study period was 157.8 per 1,000 cases of patients with gastrointestinal bleeding. The first death was

recorded on 03/13/2022. The monthly case-fatality rate showed that the disease was most aggressive in May and least aggressive in June (interestingly, the month with the highest number of cases) and August, as indicated in Figure 2.

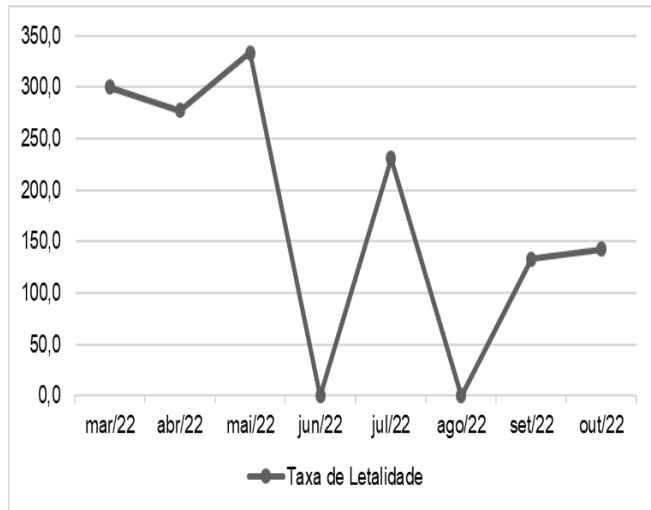


Figure 2: Fatality rate of cases of Digestive Hemorrhage at Memorial Uningá Hospital - March to October 2022. Developed by the authors.

The mortality rate during the study period was 13.48 deaths per 1,000 admissions at the institution. The monthly mortality rate highlighted April as having the highest number of deaths, with June and August having no recorded deaths, as indicated in Figure 3.

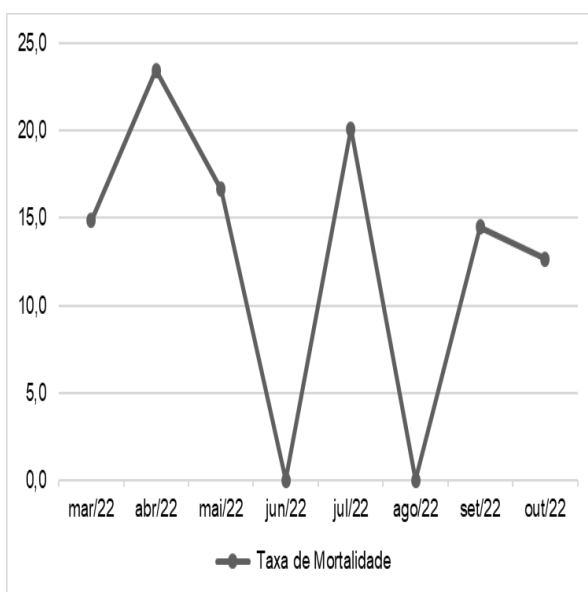


Figure 3: Mortality rate of cases of Digestive Hemorrhage at Memorial Uningá Hospital - March to October 2022. Developed by the authors.

Regarding the sociodemographic characteristics of patients with gastrointestinal

bleeding, the predominant age group was elderly individuals over 60 years old, and the majority were male, coming from locations outside the reference municipality, as shown in Table 1.

Table 1: Sociodemographic characteristics of patients with Digestive Hemorrhage between March and October 2022.

| | (n=114) | % |
|-----------------------|---------|--------|
| AGE GROUP | | |
| 0-9 years | - | - |
| 10-19 years | 01 | 0.87% |
| 20-39 years | 08 | 7.02% |
| 49-59 years | 33 | 28.95% |
| Elderly (60+ years) | 72 | 63.16% |
| SEX | | |
| Female | 39 | 34.22% |
| Male | 75 | 65.78% |
| CITY OF ORIGIN | | |
| Maringá | 55 | 48.25% |
| Other locations | 58 | 50.88% |
| Not informed | 01 | 0.87% |

Data Source: Data from the research of Hospital Memorial Uningá. Only data available in the hospitalization records were included for this analysis. Compiled by the authors on 01/05/2023.

The table 2 indicates the clinical characteristics, medical history, symptom manifestations, and case evolution during hospitalization. Important factors that may be related to the progression and occurrence of bleeding include the use of nonsteroidal anti-inflammatory drugs (NSAIDs), anticoagulant use, smoking, and alcohol consumption. Among the signs of shock, hypotension followed by tachycardia was most prominent, and 6 patients with a diagnosis of gastrointestinal bleeding were also diagnosed with COVID-19.

Table 2: Clinical characteristics of patients with Digestive Hemorrhage between March and October 2022.

| | Patients Diagnosed With Digestive Hemorrhage | | |
|--------------------------|--|-------|---------|
| | | N=114 | % |
| History of NSAIDs | Yes | 23 | 20.18 % |
| | No | 91 | 79.82 % |
| History ** | Peptic ulcer | 37 | 32.45 % |
| | Esophageal varices | 16 | 14.03 % |
| | <i>H. pylori</i> infection | 2 | 1.75 % |
| | | | |

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| | | | |
|------------------------------|-----------------------------|----|---------|
| Liver Cirrhosis | Yes | 15 | 13,15 % |
| | No | 99 | 86,85 % |
| Smoking | Yes | 23 | 20,18 % |
| | No | 76 | 66,67 % |
| | Former smoker | 15 | 13,15 % |
| Alcoholism | Yes | 24 | 21,06 % |
| | No | 82 | 71,93 % |
| | Former alcoholic | 8 | 7,01 % |
| Use of anticoagulants | Yes | 20 | 17,57 % |
| | No | 94 | 82,46 % |
| Signs and Symptoms** | Hematemesis | 58 | 50,88 % |
| | Hematochezia | 27 | 23,69 % |
| | Melena | 74 | 64,91 % |
| | | | |
| Signs of shock | Yes | 38 | 33,33 % |
| | No | 76 | 66,67 % |
| Procedures performed | Endoscopy | 67 | 58,78 % |
| | Colonoscopy | 9 | 7,90 % |
| | Both | 2 | 1,75 % |
| | Not performed | 35 | 30,70 % |
| | Unable to tolerate exam | 1 | 1,75 % |
| Diagnosis | UGIB | 91 | 79,82 % |
| | LGIB | 19 | 16,67 % |
| | UGIB/LGIB | 4 | 3,51 % |
| Case evolution | Discharged | 89 | 78,08 % |
| | Transferred | 4 | 3,50 % |
| | Left against medical advice | 3 | 2,64 % |
| | Death | 18 | 15,78 % |

Data Source: Memorial Uningá Hospital. Only information from hospital admission records was included for this analysis. ** A single case may have one or more clinical characteristics. Prepared by the authors.

Discussion

At the beginning of 2022, as mentioned earlier, Hospital Memorial Uningá positioned itself as a reference for treating this type of patient originating from the 15th health region of Maringá. Thus, through the data collection previously carried out and evidenced, it was

possible to establish a clinical-epidemiological profile of the patients in question.

During the period from March to August 2022, Hospital Memorial Uningá (HMU) accepted a total of 1335 patients across various specialties via the Central Hospital Bed System. Of these, 47% of the patients were referred to the General Surgery department, and more specifically, 8.5% of this total had a suspected diagnosis of Acute Digestive Hemorrhage, whether upper or lower. The most common symptom presented by these patients, to fit within this diagnostic hypothesis, was melena (65%), followed by hematemesis (51%) and hematochezia (24%).

Analyzing the data of these 113 accepted patients with the diagnostic hypothesis of digestive hemorrhage, it was observed that 63% were aged 60 years or older at the time of admission, as most studies have been showing for years (FRANCO et al., 2015 and LENHARDT, 2018). However, here, a considerable majority of patients in both age groups were male (66% versus 34% female), which contradicts the literature analyzed (CASTRO, 2014), which presents values around 60% in female patients when discussing elderly patients. Male incidence prevails when considering patients under 60 years of age, as observed.

It is proven that the consumption of corticosteroids, alcohol abuse, and smoking also increase the risk of digestive hemorrhage (COUTO, 2010).

When asked about smoking, 33% of the patients reported having used it for a prolonged period or still do so, which made it the most associated risk factor for digestive hemorrhage in these patients.

Regarding etiology, the most prevalent according to Jacinto (2019) is the presence of peptic ulcer disease, with an approximate frequency of 40 to 60% of cases. As expected, peptic ulcer disease (PUD) remained the leading cause of cases of digestive hemorrhage, being present in 32% of patients.

Therefore, this etiology confers a high mortality rate to these cases. Generally, hemorrhage episodes originate predominantly from large posterior duodenal ulcers, by erosion of the gastroduodenal artery, and from ulcers in the lesser curvature of the stomach, involving branches of the left gastric artery. Dyspeptic symptoms are not present in most cases, and there

is often an association with the use of aspirin and NSAIDs, as seen in 20% of patients, in addition to *Helicobacter pylori* infection (CASTRO, 2014).

H. pylori should be eradicated, especially in patients with a chronic indication for NSAID use. Thus, it is important to investigate it in the EGD. However, the sensitivity of biopsy for its diagnosis in the presence of peptic ulcer bleeding is low. The diagnosis can then be obtained after a period of time or based on positive serologies (JACINTO, 2019).

Anticoagulated patients accounted for 17% of the total, and it is proven that there is a higher risk of gastrointestinal bleeding of about 2.3 to 4.9 times higher than those not receiving this type of treatment, especially when it comes to Vitamin K Antagonists (CASTRO, 2014).

Another very important etiological factor when it comes to digestive hemorrhage is the presence of esophagogastric varices, although it constitutes a less common cause of UGIB, it can be quite serious. Generally, these patients have underlying liver disease and/or a history of alcohol abuse, with consequent cirrhosis (LENHARDT et al., 2018).

In this study, 14% of the patients had a previous diagnosis of esophagogastric varices, a value similar to the incidence of cirrhosis in these patients.

Varices are generated by hypertension in the portal system, usually when the portal pressure is greater than 10 to 12 mmHg. This alteration is also responsible for most other serious complications of cirrhosis such as ascites, hepatic encephalopathy, and UGIB due to varices (LU et al., 2014).

Therefore, it is important that at the time of admission of these patients, the patient's medical history initially includes the main signs and symptoms that led to the clinical suspicion of digestive hemorrhage: melena, hematemesis, and hematochezia, as well as details regarding onset, duration, intensity, previous similar episodes, and associated symptoms.

In addition, data should be obtained to guide the etiology of the hemorrhage. Inquiry should be made about the presence of previously discussed pathological backgrounds, such as liver disease, heart disease, and coagulation disorders. Also, the use of medications such as NSAIDs and oral anticoagulants should be clarified.

Important factors to be identified also during the anamnesis include age over 60 years, presence of comorbidities, chronic alcoholism, use of anticoagulant, antiplatelet, and NSAID medications, presence of *H. pylori*, history of rebleeding in patients already treated endoscopically, massive hematemesis or enterorrhagia, persistent melena, and bleeding in hospitalized patients.

During physical examination, the patient's general condition, level of consciousness, vital signs such as heart rate, respiratory rate, and blood pressure, as well as cutaneous pallor and perfusion of extremities, should be evaluated, which can facilitate the identification of hypovolemic shock, as was the case in 34% of patients.

Proctological examination should be part of the complete physical examination to confirm the presence of melena or fresh blood via rectum and to rule out possible causes of bleeding originating from orificial diseases in a simpler and more practical way.

Hemorrhages from the oral cavity, airways, epistaxis, and dark stools due to iron salts use are conditions that may raise the diagnostic hypothesis of UGIB but should be ruled out initially through anamnesis or physical examination.

Factors such as hemodynamic instability and arterial hypotension, especially if blood transfusion is needed, patients with sepsis, nasogastric aspiration, or rectal examination with fresh blood are factors that confer a higher risk to the patient.

Laboratory tests should be collected at the time of admission and serially to monitor the patients' progress. The most basic tests required include a complete blood count with platelet count, coagulation profile, Sodium, Potassium, Urea, Creatinine, and Liver function tests.

For the management of these patients, as with any other care in a high-complexity hospital setting, a multidisciplinary team is necessary. In this specific case, we should have gastroenterologists, endoscopists, intensivists, and surgeons, along with a nursing team prepared to provide the necessary support.

In the majority of cases, these patients should be referred to the intensive care unit (ICU), where appropriate hemodynamic monitoring and supportive measures will be implemented.

The primary goal at the initial stage of managing these patients is hemodynamic stabilization, which is the focus of our care. Early aggressive resuscitation of hemodynamically unstable patients can reduce mortality in cases of gastrointestinal bleeding.

It is important to note that in cases of variceal bleeding, volume resuscitation should be more judicious since the volume distribution tends to be directed preferentially to the splanchnic territory, leading to elevated portal pressure, ascites formation, and little impact on blood pressure. This underscores the importance of history taking and investigation of the etiology of the condition (CASTRO, 2014).

Urinary catheterization is also indicated for adequate monitoring of urine output, hydration, and fluid balance of the patient.

In the management of hypovolemic shock due to massive bleeding in variceal bleeding, in cases of failure after adequate volume replacement, a Sengstaken-Blakemore tube may be used as a bridge to definitive treatment, whether surgical or endoscopic, for a period of 24 hours.

When referring to patients in hemodynamic shock, blood transfusion becomes an option in patients with active bleeding and hemoglobin levels below 7 g/dl due to its cardiovascular impact.

There are no defined recommendations for platelet transfusion, as well as proof of its real benefit. Some authors suggest that platelet levels should be maintained above 50,000, or 100,000 in cases of suspected platelet dysfunction.

Fresh frozen plasma can also be transfused in patients with significant coagulopathy, although there is also no clear evidence of its benefit. Its main indications are: cirrhotic patients, patients on oral anticoagulants, or those transfused with more than 10 units of packed red blood cells (CASTRO, 2014).

When referring to patients with suspected upper gastrointestinal bleeding (UGIB) due to gastroesophageal varices, the administration of vasoactive drugs should be considered as early as possible to reduce portal pressure, which is the main cause of bleeding, and thus control hemorrhage and decrease the frequency of recurrence (LU et al., 2018).

For this purpose, we have terlipressin, somatostatin, octreotide, and vasopressin available

in Brazil. These drugs should be combined with endoscopic therapy because this combination is superior to each of the individual therapeutic modalities. Their use should precede endoscopic intervention and should be administered over a period of 2 to 5 days (CASTRO, 2014).

When discussing the treatment of this type of condition, Upper Gastrointestinal Endoscopy (UGIE) plays an essential role in the diagnosis, prognosis, and therapy of these patients, considering the effective treatment of bleeding.

Among its benefits, it can reduce mortality, rebleeding rates, the need for blood transfusion, hospitalization, and healthcare costs, greatly improving after the introduction of this therapeutic modality over the years.

UGIE is the examination of choice for investigation due to its accuracy, low complication rate, and being not only a diagnostic procedure but also a therapeutic option. It should be performed after optimal volume resuscitation and stabilization of the patient's condition.

Endoscopic hemostasis is indicated and effective in most causes of UGIB, such as peptic ulcer, gastroesophageal varices, Mallory Weiss lesions, and vascular malformations. When performed emergently, it is recommended to be done within 24 hours of hospital admission.

According to the 1st Consensus of the Brazilian Society of Hepatology, UGIE should be performed early in patients with variceal bleeding, preferably within the first 12 hours of admission, both for the diagnosis of variceal bleeding and for endoscopic therapy.

It is important to emphasize that hemodynamically unstable patients, who, despite volume expansion, maintain tachycardia, hypotension, and signs of active bleeding, should undergo emergency endoscopic examination.

UGIE has an important therapeutic function since about 80% of patients with active bleeding observed on UGIE will continue to bleed or experience rebleeding despite initial clinical management (HEARNshaw et al., 2010).

After endoscopic hemostasis, predictors of rebleeding include hemodynamic instability, active bleeding on UGIE, ulcer size greater than 2 cm, location of the gastric ulcer in the high region of the lesser curvature or posterior duodenum, hemoglobin level less than 10 g/dL, and the need for blood transfusion.

The risk of rebleeding in UGIB due to ulcers can also be indicated by the Forrest classification, visualized by UGIE, into high or low-risk stigmata. High-risk stigmata include Forrest Ia (active spurting bleeding), Ib (active oozing bleeding), IIa (visible vessel without bleeding), and IIb (adherent clot), while low-risk stigmata include Forrest IIc (flat pigmented spot or clean base ulcer) and III (clean-based ulcer without active bleeding). Rebleeding rates are approximately: Forrest Ia and Ib 55%, IIa 43%, IIb 22%, IIc 10%, and III 5%.

Endoscopic therapy is recommended for all patients with variceal bleeding and consists of local therapies, without effect on portal flow or resistance.

The treatment of esophageal varices is primarily performed by elective band ligation, which has a lower rate of local and systemic complications, lower mortality, and requires fewer sessions for obliteration. However, sclerotherapy may also be used in the acute phase of UGIB if band ligation is technically challenging. The combined therapy of band ligation and sclerotherapy is not recommended (HEARNshaw et al., 2010).

Regarding gastric varices, treatment can be performed with either band ligation or sclerotherapy for those that extend from esophageal varices to the small or large curvature, or with cyanoacrylate as the method of choice for those presenting with a pseudotumoral form.

Early TIPS (Transjugular Intrahepatic Portosystemic Shunt) application should be considered in patients at high risk of recurrence or therapeutic failure after initial pharmacological and endoscopic treatment (CASTRO, 2014). TIPS is highly effective in hemorrhage control (95%), but due to worsening liver function and encephalopathy, mortality remains high (CASTRO, 2014).

Currently, surgery has a limited role in the management of esophagogastric varices. Secondary prophylaxis, both pharmacological and endoscopic, should be initiated before hospital discharge and preferably started by the 6th day after the acute episode. The combination of beta-blockers with band ligation of varices is the prophylactic therapy of choice, resulting in a lower rate of hemorrhagic recurrence (CASTRO, 2014).

When it comes to the treatment of non-variceal bleeding, high-dose intravenous PPI administration is recommended in patients with non-variceal UGIB while awaiting endoscopy to reduce basal acid secretion. Although the optimal dose is not established, a bolus of 80 mg omeprazole followed by continuous infusion of 8 mg/h is used. This therapy should be maintained for 72 hours after endoscopic hemostasis, and after that period, oral administration should be prescribed according to the etiology and duration of bleeding. In case of lack of intravenous formulations, the use of doubled doses of PPI, every 12 hours orally, has shown good results (PRATA, 2011) and (LU et al., 2018).

Endoscopic hemostasis should be performed in all patients with high-risk stigmata on endoscopy, mainly classified as Forrest Ia, Ib, and IIa1 (PRATA, 2011). The modalities used are thermal, mechanical, or injection of drugs. Pharmacotherapy is inferior among them and, if used, should be combined with thermal therapy or clip application. There is not enough evidence to recommend the use of one hemostatic method over another, alone or in combination. The most indicated method is the one with which the endoscopist is most familiar and has good results.

Endoscopic treatment can control bleeding in 90% of cases; however, there is recurrence in 10 to 25% of patients. Patients with refractory bleeding are candidates for angiography or surgery (CASTRO, 2014).

Recurrent bleeding mainly occurs within the first 72 hours. Therefore, patients should be monitored for at least three days. Recurrence is considered when there is hematemesis or melena associated with shock or a decrease in hemoglobin concentration of at least 2 g/dL within 24 hours (CASTRO, 2014).

Considering that patients may rebleed even 3 days after endoscopy, they should be discharged with a prescription for once-daily oral PPI, starting 72 hours after hemostasis and continuing for a period determined according to the cause of bleeding. Typically, PPI administration for 6 to 8 weeks or longer is recommended if the patient is infected with *H. pylori* or uses aspirin or NSAIDs continuously.

H. pylori infection should be sought in all patients with ulcer-related UGIB, and treatment should be initiated based on urease testing or histology. Additionally, eradication control should

be performed subsequently. This practice results in a lower long-term rebleeding rate.

Patients who experience rebleeding have a tenfold higher mortality rate. EGD provides important prognostic information. The presence of blood in the upper gastrointestinal tract, active bleeding ulcers, and a visible vessel are signs of a worse prognosis. In cases of active bleeding ulcers, there is an 80 to 90% risk of persistent bleeding and rebleeding. A visible vessel or adherent clot is associated with a 50% risk of rebleeding (CASTRO, 2014).

The prognosis of patients with liver disease and variceal UGIB is related to the severity of the underlying hepatopathy. The mortality rate for the first episode of bleeding is 30 to 50%, ranging from 10% to 50% according to the Child-Pugh classification. Additionally, the size of varices and the presence of "red spots" are also associated with the severity of bleeding and mortality (CASTRO, 2014).

Conclusion

Through this study, it was possible to conclude that, as found in current literature, gastrointestinal bleeding cases still exhibit a high incidence within society. Furthermore, another point that aligns with current literature is that the most prevalent etiology of bleeding was peptic ulcer disease, accounting for 32.4% of cases, followed by the presence of esophageal varices, with a percentage of 14.3%.

It is known that the etiologies of bleeding are variable and have changed in frequency over the years. Knowledge of these variations is essential for improving the management of these patients, allowing for the development of protocols aimed at minimizing shortcomings in this type of care.

Acknowledgments

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