ECRONICON OPEN ACCESS

EC GASTROENTEROLOGY AND DIGESTIVE SYSTEM

Research Protocol

Gastrointestinal Bleeding in Medical Emergencies: from Diagnosis to Treatment

Dalila Tagzout* and Amar Tebaibia

Algiers Faculty of Medicine, Algiers University, El Biar Hospital, Algeria

***Corresponding Author:** Dalila Tagzout, Algiers Faculty of Medicine, Algiers University, El Biar Hospital, Algeria.

Received: August 18, 2021; **Published:** October 20, 2021

Abstract

Acute gastrointestinal bleeding (GIB) is common medical condition that results in high patient morbidity, mortality and medical care costs, requiring multidisciplinary management. It represents a relevant problem for public health, despite continue ameliorations in medical and endoscopic treatment [1]. The objectives of this work are to identify the different etiologies of gastrointestinal bleeding in patients admitted urgently, to assess the severity of the bleed according to physical signs, and to describe the therapeutic and progressive modalities. This is a retrospective study including 593 patients admitted in emergency department for digestive hemorrhage. The etiologies of upper gastrointestinal bleeding were dominated by severe or erosive gastritis or duodenitis, followed by abnormalities related to portal hypertension and peptic ulcer disease. The lower gastrointestinal bleeding was mainly related to internal hemorrhoidal disease or proctitis. Appropriate therapeutic management was carried out in all patients with stabilization of the haemodynamic state and haemostasis treatment..

Keywords: *Acute Gastrointestinal Bleeding; Upper Gastrointestinal Bleeding; Lower Gastrointestinal Bleeding*

Abbreviations

GIB: Gastrointestinal Bleeding; UGIB: Upper Gastrointestinal Bleeding; LGIB: Lower Gastrointestinal Bleeding

Introduction

Acute gastrointestinal bleeding is common medical condition that results in high patient morbidity, mortality and medical care costs, requiring multidisciplinary management. It represents a relevant problem for public health, despite continue ameliorations in medical and endoscopic treatment [1].

Gastrointestinal bleeding (GIB) can be divided in upper GIB (UGIB) and lower GIB (LGIB) based on the location, which can be proximal or distal to the ligament of Treitz. UGIB refers to bleeding originating from sites in the esophagus, stomach, or duodenum. Nearly 80% of patients visiting emergency departments for UGIB are admitted to the hospital [2]. GIB may have a wide variety of clinical presentations, with different signs, symptoms and severity [3]. The initial evaluation of a patient with a suspected clinically significant acute GIB includes a history, physical examination, and laboratory tests. The severity of GIB is correlated with physical signs of hypovolemia and hemodynamic stability [4].

Objective of the Study

The objectives of this work are to identify the different etiologies of GIB in patients admitted urgently, to assess the severity of GIB according to physical signs, and to describe the therapeutic and evolutionary modalities.

Materials and Methods

We performed a retrospective analysis of all adult patients admitted in emergency for GIB from January 2012 to December 2013. During this period, 593 patients (47,4% men, mean age: 59 years, extreme ages : 16-98 years) were included. Clinical, endoscopic and therapeutic data were collected from clinical records, endoscopic reports and treatment files.

Results

The reason for emergency admission was, depending on the type of GIB, dominated by hematemesis: 68.5% (n = 379), the latter was isolated in 52.1% (n = 288), associated with melena in 15.3% of cases (n = 85) and rectal bleeding in 1.1% of cases (n = 6). Melena was isolated in 13.2% of cases (n = 73) and was associated with rectal bleeding in 3.1% of cases (n = 17). Isolated rectal bleeding required hospitalization in 84 patients (15.2%).

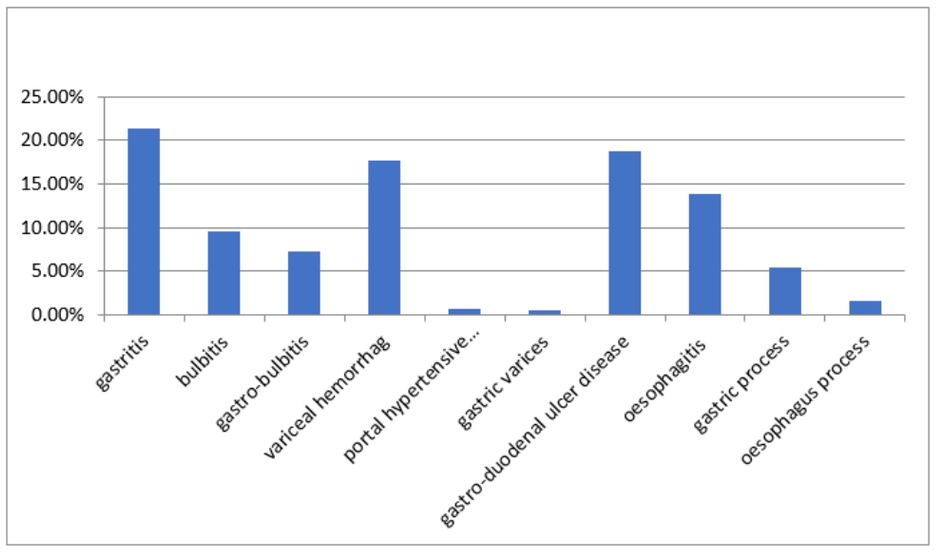
Depending of hypovolemia signs and hemodynamic stability, we had found in our study: severe GIB in 131 patients (23.7%), moderate GIB in 287 patients (51.9%) and mild GIB in 135 patients (24.4%). Blood transfusion was required in 44.5% of cases (n = 246).

Urgent endoscopic exploration was not performed at our level in 69 patients (12.4%). These were: 6 deaths (1.1%) before any endoscopic exploration, 16 intolerant patients (2.8%) and 47 patients transferred to intensive care unit (8.5%) due to hemodynamic instability.

The endoscopic exploration results in 467 patients, GIB occurred in: the upper GI tract in 82.2% of cases (n = 384), the lower GI tract in 7.5% of cases (n = 35) and no abnormalities in 48 patients (10.3%).

Inflammatory and erosive gastric and/or bulbar lesions were the most frequent of upper hemorrhages (38.3%, n = 147): gastritis (21.4%, n = 82), bulbitis (9.6%, n = 37) and both (7.3%, n = 28), followed by portal hypertension in 18.9% of cases (n = 73). The complications of portal hypertension are more frequently related to the oesophageal varices (17.7%, n = 68), followed by hypertensive gastropathy in 3 patients and by the subcardial varices in 2 cases. Peptic ulcer disease was found in 18.8% of cases (n = 72).

Esophagitis lesions were involved in 13.8% of cases (n = 53), gastrointestinal tumors were discovered in 27 patients (7.1%) with gastric localization in 21 patients (5.5%) and esophageal in 6 patients (1.6%) and an aspect of Mallory Weiss was noted in 3.1% of cases (n = 12). The different causes of UGIB are summarized in graph 1.



Graph 1: *Etiologies of upper gastrointestinal bleeding.*

LGIB were, in decreasing order, related to hemorrhoid disease (40%, n = 14), proctitis (22.8%, n = 8), colorectal tumors (17,1%, n = 6), diverticulosis (8.6%, n = 3), angiodysplasia in 2 cases and anal cancer and solitary ulcer of the rectum in only one case.

During the hemorrhagic complication, 48 patients (8.7%) were on anticoagulants and 87 (15.7%) had taken gastro-toxic medication: Aspirin (n = 60, 10.8%) and others non-steroidal anti-inflammatory drugs (n = 27, 4.9%).

During hospitalization, 35 patients (6.3%) died of which 6 before endoscopic exploration. The causes of death are dominated by complications of portal hypertension.

For UGIB, the inflammatory or peptic ulcer disease was treated with high-dose proton pump inhibitors with a bolus of 80 mg followed by intra veinous infusion 08 mg per hour, with good progress in the majority of cases. Helicobacter pylori eradication therapy was prescribed in all of these patients. Bleeding esophageal varices was managed by combined hemostatic treatment: pharmacological with administration of Octreotide 50 mcg IV bolus followed by 50 mcg/hour continuous IV infusion and endoscopic band ligation. The 2 cases of bleeding intra-gastric varices were treated by injections of sclerosant (fibrin glue). Patients with gastro-intestinal tumors were referred for appropriate multidisciplinary management. The other less serious pathologies were treated on a case-by-case basis and referred for follow-up in gastroenterology consultation.

Discussion

Acute GIB in adults is the most frequent emergency in hepato-gastroenterology. Endoscopy remains the principal diagnostic, therapeutic, and prognostic modality for GIB but the endoscopic therapy is indicated after adequate recovery of the patient. In our series, GIB occured often in upper gastrointestinal tract 82.2% and more than half of the cases are moderate GIB, this which matches the data in the literature 80% [3].

The etiologies of UGIB are dominated by lesions of gastritis and duodenitis followed by acute variceal hemorrhage and peptic ulcer disease, which joins the data in the literature with as etiologies: peptic ulcer disease and gastritis in 40 to 70% of cases, acute variceal hemorrhage in 5 to 25% of cases, esophagitis and Mallory Weiss syndrome in 5 to 10% of cases respectively, and no lesion identified in 5 to 20% of cases [2,3].

Lower gastrointestinal bleeding is mainly secondary to anorectal diseases. Tumors are the cause in 15% of cases [2], which agrees with our results (17.1%).

Patients with acute GIB should be resuscitated with fluid administration, blood transfusion, cardio-respiratory support, and treatment of significant comorbidities, such as sepsis or coronary artery disease. In patients who have severe hemodynamic or pulmonary instability, EGD should be delayed until the patients adequately stabilized.

Conclusion

Acute gastrointestinal bleeding in adults is a diagnostic and therapeutic emergency. In this work, it is most often moderate GIB. The upper gastrointestinal bleeding was by far the most common and often linked to gastro-duodenal lesions and esophageal varices. It is important to prevent bleeding complications by early treatment of severe or erosive gastritis/duodenitis, portal hypertension and by using carefully the gastrotoxic drugs.

Bibliography

1. Kim BS., *et al*. "Diagnosis of gastrointestinal bleeding: A practical guide for clinicians". *World Journal of Gastrointestinal Pathophysiology* 5.4 (2014): 467-478.

2. Peter DJ. *Emergency Medicine Clinics of North America* (1999).

3. Gaiani Federica., *et al*. "Clinical approach to the patient with acute gastrointestinal bleeding". *Acta Biomedica* 89.8 (2018): 12-19.

4. Cappell MS and Friedel D. "Initial management of acute upper gastrointestinal bleeding: from initial evaluation up to gastrointestinal endoscopy". *Medical Clinics of North America* 92.3 (2008): 491.

Volume 8 Issue 11 November 2021