

Upper Gastrointestinal Bleeding in Patients Admitted to the Intensive Care Unit

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Abstract

Introduction: Gastrointestinal bleeding is a life-threatening condition, with mortality depending on the cause and severity. The objective of this study was to retrospectively evaluate the epidemiological, clinical and evolutive aspects of a series of patients diagnosed with upper gastrointestinal bleeding, admitted to the Intensive Care Unit of Arrazi hospital in Marrakech, Morocco.

Material and methods: A retrospective, descriptive study was carried out, of patients diagnosed with upper gastrointestinal bleeding, admitted to the Intensive Care Unit of the Arrazi hospital in Marrakech, Morocco, between January 1st, 2018 – December 30th, 2018. Results: We observed that the three most frequent causes of upper gastrointestinal bleeding in our series were peptic ulcer disease, variceal hemorrhage and gastric cancer. The global mortality due to gastrointestinal bleeding was

Conclusion: It should be noted that in the group of patients who died, all had hemorrhagic shock at the time of admission

Keywords: Upper gastrointestinal bleeding; Hemorrhage; Intensive care unit; Epidemiology; mortality

Introduction

Acute upper gastrointestinal bleeding is a common medical emergency that has a 10% hospital mortality rate [1]. Elderly patients and people with chronic medical diseases withstand acute upper gastrointestinal bleeding less well than younger, fitter patients, and have a higher risk of death. Almost all people who develop acute upper gastrointestinal bleeding are treated in hospital and the guideline therefore focuses on hospital care. The most common causes are peptic ulcer and oesophagogastric varices. Endoscopy is the primary diagnostic investigation in patients with acute upper gastrointestinal bleeding. THE OBJECTIVE OF THE STUDY Was to retrospectively evaluate the epidemiological and clinical data of a series of patients diagnosed with upper gastrointestinal bleeding admitted to the Intensive Care Unit (ICU) of Arrazi Hospital in Marrakech, Morocco?

Materials and Methods

A retrospective, descriptive study was carried out in which the clinical data of patients diagnosed with upper gastrointestinal bleeding, admitted to the ICU Arrazi Hospital in Marrakech, Morocco. Between January 1st, 2018 to December 30th, 2018, were analyzed.

The clinical variables were collected. The data obtained from the medical records were: age, sex, personal history of hypertension, diabetes established coronary disease, heart failure with reduced ejection fraction, chronic renal failure, intake of non-steroidal anti-inflammatory drugs (NSAIDs) in the past 3 months, alcoholism, cirrhosis (previous diagnosis or diagnosed during hospitalization), previous digestive hemorrhage, type of clinical presentation (hematemesis, melena, hematochezia, acute anemia, hypovolemic hemorrhagic shock, necessity of transfusion of blood products), etiology (gastric ulcer, duodenal ulcer, erosive gastritis, duodenitis, gastric polyp, gastric cancer, Mallory-Weiss syndrome, esophageal varices), endoscopic study performed, surgical treatment, medical treatment and mortality.

Résultats

A total of 78 patients with upper GI bleeding symptoms had been admitted to the UCI between January 1, 2018 and December 30, 2018. Of those, 78 patients; 38 had been transferred from another hospital, 42 had GI bleeding that occurred in-hospital, and 4 had incomplete data. Of the 74 remaining cases, 41 (55.4%) were men and 33 (44.6%) women. The average age was 48.35 years. When

performing the descriptive analysis of baseline characteristics, we found that 33% had a history of previous digestive bleeding, 18% had consumed NSAIDs, 28% had terminal liver disease (cirrhosis) and 10.5 % had therapeutic anticoagulation. In relation to the clinical presentation of gastrointestinal bleeding, melena and hematemesis were the most common manifestations (78.4%, 72% respectively), followed by acute anemia (47%). 38% presented with hemodynamic instability (hypovolemic/hemorrhagic shock). Of all the cases of UGIB, 35 episodes were variceal (45.8%) and 39 cases were UGIB of non-variceal origin (54.16%). The total causes of gastrointestinal bleeding were duodenal ulcer (18%), gastric ulcer (25%), esophageal or gastric varices (39%), gastric cancer (10.6%), Mallory Weiss syndrome (2.4%), duodenitis (1.6%). In our study, 18.8% of patients received endoscopic treatment with adrenaline injection, application of hemoclips or elastic bands (depending on the cause), while 38.6% required only medical support (iv perfusion, transfusions of blood products, intense acid suppression etc.). 8.4% of patients required surgical treatment of the bleeding. The overall mortality due to digestive hemorrhage in our study was 2.8 % (2 patients).

Discussion

Upper gastrointestinal bleeding is a major cause of admission to hospitals worldwide. The epidemiology, etiology and outcome of upper gastrointestinal bleeding vary significantly in different geographic regions depending on the demographic and socioeconomic characteristics of the local population. More than half of patients with GI bleeding have a comorbid disease and according to the literature the most frequent of these diseases are hypertension, diabetes mellitus, coronary artery diseases, malignancies, and hepatic diseases [2-4]. Clinical guidelines published in 2008 in Scotland cited a mortality rate of 4% in GI bleeding patients without comorbidities, with the mortality rate increasing 1.8 times in cases with heart failure, 3.8 times in cases with malignancy, and 2 times in cases with liver disease [5]. According to the National Institute for Health and Clinical Excellence 2012 guidelines, patients with GI bleeding who also have chronic diseases are at a higher risk of death [6] In most publications, 80% to 90% of UGIB cases were of non-variceal origin, which differs from our findings, where the percentage of upper nonvariceal bleeding reached 61% [1]. These differences could be explained by the fact that our hospital admits a significant number of patients with end-stage liver disease. In our study, global mortality due to gastrointestinal bleeding was 2.7 % .The mortality rate from digestive hemorrhage has been progressively decreasing during

the last two decades, due to the better diagnostic and therapeutic approach of the disease. In a comparative study of two cohorts of patients with UGIB (period 1983-1985 and 2002-2004), Loperfido et al. showed that mortality by this entity decreased from 17.1% to 8.2%, respectively [7]. Currently, the mortality due to UGIB is estimated to be between 7% and 12%, and may reach 30% or more in the case of hemorrhage due to esophageal varices (depending on the intensity of bleeding and/ or severity of the underlying liver disease, estimated by the Child-Pugh score [8].

Conclusion

The aim of our study was to show the demographic characteristics, personal history, form of presentation, causes and mortality in a series of cases of upper digestive hemorrhage admitted to an Intensive Care Unit. The most frequent causes of were gastroduodenal peptic ulcer disease, followed by variceal hemorrhage. Finally, all the patients who died (2.7%) presented hemorrhagic shock upon admission, which highlights its prognostic value.

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