

# To Study the Clinical Profile of Patients Presenting with Upper GI Bleed to Emergency Department

Veena BS\*, Sreekrishnan TP\*, Annrose\*

**Abstract:** *Background:* It has been seen that Upper gastrointestinal bleeding (UGIB) is one of the most common gastrointestinal emergencies. There is raised incidence of peptic ulcer with increased frequency of bleeding from it. The Glasgow-Blatchford score (GBS) is a screening tool to assess the likelihood that a patient with an acute upper gastrointestinal bleeding will need to have medical intervention. *Objective:* To study the clinical profile of patients presenting with upper GI bleeding to our emergency department. To find out outcome of patients with upper GI bleed using Glasgow-Blatchford score. *Methods:* This was a prospective study conducted in patients who came to our emergency department presenting with upper GI bleeding. A total of 180 patients (76% males and 24% females) were studied. The study included all the age groups above 18 years of age. The Glasgow-Blatchford score for all patients with upper GI bleed was calculated. *Result:* Majority of our patients were in the age group of 61-80 years. Data analysis showed that the common clinical presentation of these patients were melena and hematemesis. 42% of patients had peptic ulcer, 22% with esophageal varices. 68% patients have undergone blood transfusion. According to the Glasgow-Blatchford scoring done, 12% had a score of <6.66% had a score between 7-4, 16% had score between 15-20 and 6% had scores >20. Among 180 patients, mortality was 4% and they had GBS >20. *Conclusion:* Upper GI bleeding is more common in patients coming to emergency department than lower GI bleeding. Peptic ulcer (42%) is the most common cause resulting in upper gastrointestinal bleeding. This is followed by esophageal varices (22%). Males (76%) are more commonly affected. Most of the patients belonged to age between 60-80 years. Hematemesis (71%) was the most common presenting symptom in these patients. This study showed that, mortality rate (4%) is more in patients with Glasgow-Blatchford scoring >20. The Glasgow-Blatchford scoring system was judged to be useful for distinguishing between the high-risk group and low risk group of patients with upper GI hemorrhage.

**Keywords:** upper GI bleed

## 1. Introduction

Upper gastrointestinal bleeding, defined as bleeding spread out from a source proximal to the ligament of Treitz, which presents with hematemesis and/or melena. It is most commonly due to a bleeding peptic ulcer. In areas with a high prevalence of cirrhosis, bleeding from esophageal and gastric varices is common. Unusual causes of upper gastrointestinal bleeding include vascular abnormalities [1].

Patients with infectious colitis present with bleeding in association with diarrhea, abdominal pain and systemic upset [2]. The initial management of patients with acute gastrointestinal bleeding consists of fluid resuscitation and, if coagulopathy or thrombocytopenia is present, transfusion of blood products. Once patients are stabilized, endoscopy should be performed in order to diagnose and treat the source of bleeding [3].

Upper gastrointestinal bleeding can be treated both pharmacologically and endoscopically. With recent progress in treatment modalities, mortality from upper gastrointestinal bleeding has decreased appreciably [5]. Endoscopic therapy has been shown to decrease mortality and morbidity in patients presenting with gastrointestinal bleeding. Upper gastrointestinal endoscopy can decrease hospitalization costs by identifying patients who can be promptly discharged and can further decrease the need for surgery. Adequate resuscitation and stabilization is essential prior to endoscopy to minimize treatment associated complications [6].

The Glasgow-Blatchford bleeding score (GBS) is a screening tool to assess the likelihood that a patient with an acute upper gastrointestinal bleeding (UGIB) will need medical intervention such as a blood transfusion or

endoscopic intervention. [1] The tool may be able to identify patients who do not need to be admitted to hospital after a UGIB. Advantages of the GBS, which assesses the risk of mortality in patients with UGIB, include a lack of subjective variables such as the severity of systemic diseases and the lack of a need for esophagogastroduodenoscopy (OGD) to complete the score, a feature unique to the GBS.

## 2. Methodology

Type of study:

The study was a prospective study, which consisted of patients presenting with upper GI bleed to Emergency Medicine Department of Amrita Institute of Medical Sciences.

Study place:

Emergency Medicine Department of Amrita Institute of medical science, Kochi, Kerala.

Sample size:

This is a study with population of 180 patients came to emergency medicine department with upper GI bleed during July 2017 to December 2017.

Inclusion criteria:

All patients coming to the AIMS ER with symptoms of upper GI bleed

Exclusion criteria:

- Traumatic patients

Volume 8 Issue 7, July 2019

[www.ijsr.net](http://www.ijsr.net)

Licensed Under Creative Commons Attribution CC BY

- patients with foreign body aspiration

### 3. Materials and Methods

This is a prospective study done on all patients coming to the AIMS with symptoms upper GI bleed evaluating using Glasgow-Blatchford score. Parameters includes age, sex, hemoglobin level, blood urea nitrogen level, blood pressure, heart rate, liver and cardiac co morbidities, saturation level, use of inotropes and patient outcome. Additional information includes presence of malena, syncope, blood transfusion and endoscopy.

### 4. Results

#### Gender Distribution

- Out of 180 patients, 132(76%) were male and 48(23%) were female

#### Age Distribution

Out of 180 patients, 12 (6%) patients of 18-30 age group, followed by 44 (24%) patients of 31 to 50 age group, 35 (19%) patients of 51 to 60 age group, 72 (40%) patients of 61 to 80 age group and 17(9%) patients of >80 year.

#### Use of Inotropes

- Out of 180 patients, 21(12%) had given inotropes and 159(88%) had not given inotropes.

#### MALENA VS HEMATEMESIS

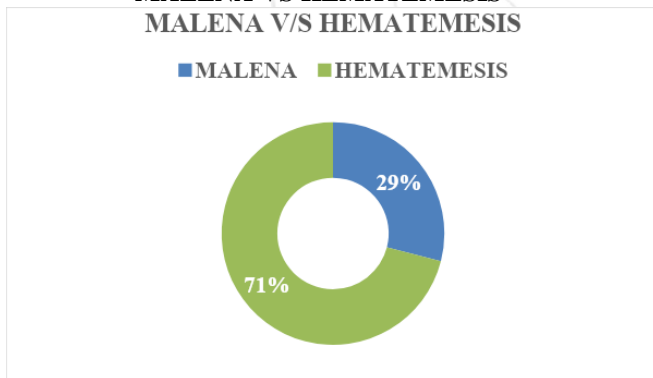


Figure 1: malena v/s hematemesis

#### Patient Out Come

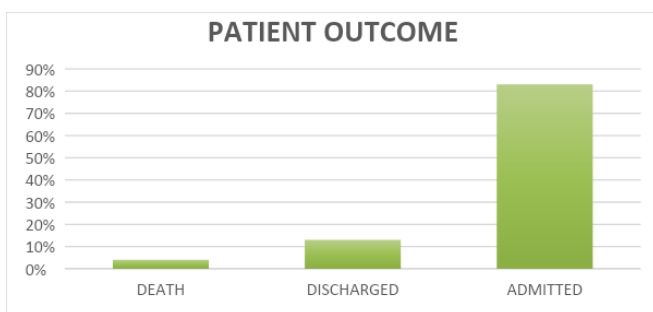


Figure 2: patient outcome

#### Endoscopy Vs Blood Transfusion

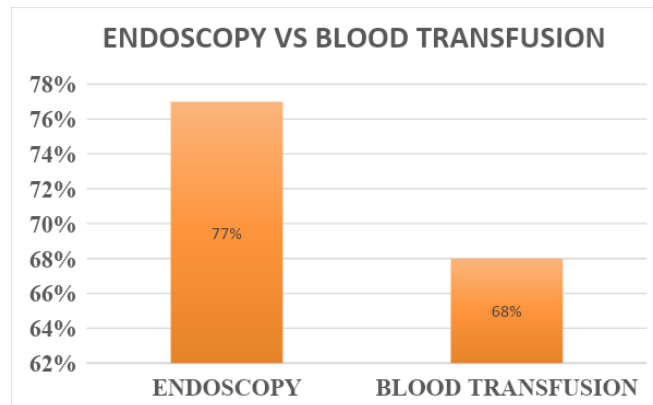


Figure 3: Endoscopy v/s blood transfusion

#### Upper GI Bleed Causes

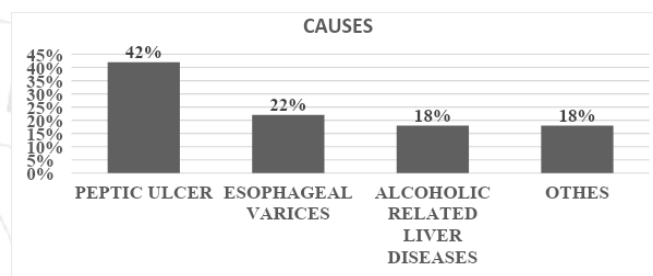


Figure 4: upper GI bleed causes

#### Hypotension Vs Tachycardia

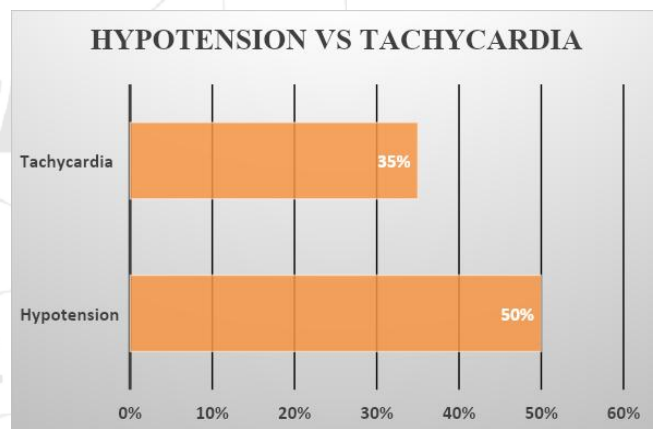


Figure 5: Hypotension vs tachycardia

#### GBS Distribution

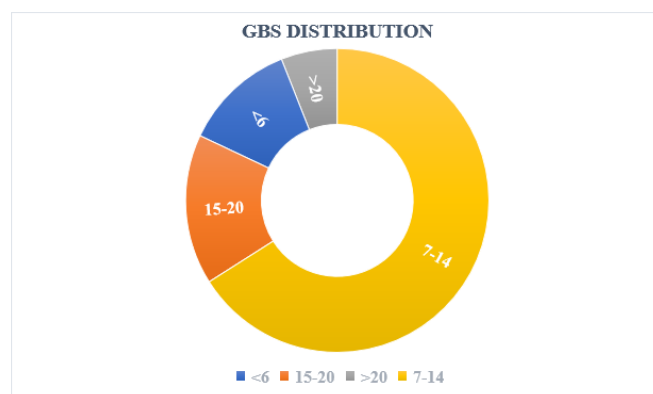


Figure 6: GBS distribution

## 5. Discussion

Upper gastrointestinal bleeding (UGIB) is important and potentially serious worldwide problem. Despite developments in diagnosis and treatment, mortality and morbidity have continued to be more or less constant. Bleeding from the upper gastrointestinal tract (GIT) is about 4 times as common as bleeding from the lower GIT. There are very few studies on accessing clinical profile of GI bleeding. .

This study was conducted with an aim to study the clinical profile of patients presenting with gastrointestinal bleeding. A total of 180 patients were studied with the help of detailed history taking, through clinical examination, blood investigations, USG abdomen and UGI endoscopy. Seventy-Two (40%) patients belonged to the age group 61-80. 44(24%) patients belonged to the age group 31-50. Thirty-five (19%) patients belonged to the age group 51-60. seventeen (9%) patients belonged to the age group >80. 12(6%) patients belonged to the age group 18-30. 71% of subjects presented with hematemesis and 52% presented with Malena. Out of 180 patients, 90(50%) have hypotension and 63 (35%) have tachycardia. 139(77%) were done endoscopy and 57(32%) were done blood transfusion.

Out of 180 patients 97(54%) have history of cardiac disease and 61(34%) have history of liver disease. According to the GB scoring done, 12% had a score of <6.66% had a score between 7-4, 16% had score between 15-20 and 6% had scores >20. Among 180 patients, mortality was 4% and they had GBS >20.

In a study by Minakari M and colleagues in Alzahra referral hospital (in Isfahan) during 2010-2015, a total 4747 patients were enrolled in the study (69.2% male, mean age = 55.46 ± 21.98 years). Hematemesis was the most frequent presenting symptom (63.5%). Peptic ulcer (duodenal ulcer in most cases) was seen as the main reason for UGIB (42.4%). The etiology behind UGIB is similar in our study.

The limitations of study period were short spanning only 6 months. The sample size was small. A larger sample size is required to deduce a conclusion that can be applicable to the general population.

## 6. Conclusion

Upper GI bleeding is more common in patients coming to emergency department than lower GI bleeding. Peptic ulcer (42%) is the most common cause resulting in upper gastrointestinal bleeding. This is followed by esophageal varices (22%). Males (76%) are more commonly affected. Most of the patients belonged to age between 60-80 years. Hematemesis (71%) was the most common presenting symptom in these patients. This study showed that, mortality rate (4%) is more in patients with Glasgow-Blatchford scoring >20. The Glasgow-Blatchford scoring system was judged to be useful for distinguishing between the high-risk group and low risk group of patients with upper GI hemorrhage.

## Reference

- [1] Davidson LA, Murray WR, et al: Acute upper gastrointestinal hemorrhage in west of Scotland: case ascertainment study. *BMJ* 315: 510, 1997. [PMID: 9329304]
- [2] Sostres C, Lanas A: Epidemiology and demographics of upper gastrointestinal bleeding: prevalence, incidence, and mortality. *Gastrointest Endosc Clin N Am* 21: 567, 2011. [PMID: 21944411]
- [3] Logan RF, Devlin HB, et al: Incidence of and mortality from acute upper gastrointestinal hemorrhage in the United Kingdom: Steering Committee and members of the National Audit of Acute Upper Gastrointestinal Haemorrhage. *BMJ* 311: 222, 1995. [PMID: 7627034]
- [4] Boonpongmanee S, Fleischer DE, Pezzullo JC, et al: The frequency of peptic ulcer as a cause of upper-GI bleeding is exaggerated. *Gastrointest Endosc* 59: 788, 2004. [PMID: 15173790]
- [5] Villanueva C, Colomo A, Bosch A, et al: Transfusion strategies for acute upper gastrointestinal bleeding. *N Engl J Med* 368: 11, 2013. [PMID: 23281973]
- [6] Jutabha R, Jensen DM: Management of upper gastrointestinal bleeding in the patient with chronic liver disease. *Med Clin North Am* 80: 1035, 1996. [PMID: 8804374]
- [7] Belaiche J, Burette A, De Vos M, et al: Belgian Study Group of NSAID-GI Complications: observational study of NSAID-related upper gastrointestinal adverse effects in Belgium. *Acta Gastroenterol Belg* 65: 65, 2002. [PMID: 12148440]
- [8] Feldman RA: The cohort effect and *Helicobacter pylori*. *J Infect Dis* 168: 219, 1993. [PMID: 8515114]
- [9] Ofman JJ, MacLean CH, Straus WL, et al: A metaanalysis of severe upper gastrointestinal complications of nonsteroidal anti-inflammatory drugs. *J Rheumatol* 29: 804, 2002. [PMID: 11950025]
- [10] Parsonnet J: The incidence of *Helicobacter pylori* infection. *Aliment Pharmacol Ther* 9: 45, 1995. [PMID: 85]
- [11] Acosta RD, Wong RKH: Differential diagnosis of upper gastrointestinal bleeding proximal to the ligament of Trietz. *Gastrointest Endosc Clin N Am* 21: 555, 2011. [PMID: 21944410]
- [12] Van Leeradam ME, Vreeburg EM, Rauws AJ, et al: Acute upper GI bleeding: did anything change? *Am J Gastroenterol* 98: 1494, 2003. [PMID: 12873568]
- [13] Czernichow P, Hochain P, Nousbaum JB, et al: Epidemiology and course of acute upper gastrointestinal haemorrhage in four French geographical areas. *Eur J Gastroenterol Hepatol* 12: 175, 2000. [PMID: 10741931]
- [14] Lecleire S, Di Fiore F, Merle V, et al: Acute upper gastrointestinal bleeding in patients with liver cirrhosis and in noncirrhotic patients: epidemiology and predictive factors of mortality in a prospective multicenter population-based study. *J Clin Gastroenterol* 39: 321, 2005
- [15] Senger JL, Kanthan R: The evolution of Dieulafoy's lesion since 1897: Then and now - A journey through the lens of a pediatric lesion with literature review.

Gastroenterol Res Pract 2012: 432517, 2012. [PMID:  
22474434

- [16] Wilcox CM, Alexander LN, Cotsonis G: A prospective characterization of upper gastrointestinal hemorrhage presenting with hematochezia. Am J Gastroenterol 92: 231, 1997

