

Upper Gastrointestinal Bleeding: A Prospective Clinical Study

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Abstract Introduction: Gastrointestinal bleeding also known as gastrointestinal hemorrhage is all forms of bleeding in the gastrointestinal tract from mouth to the rectum. Upper gastrointestinal bleeding includes hemorrhage originating from above ligament of Treitz. GI bleeding can be potentially life threatening. Upper GI bleed usually present with hematemesis, coffee-ground emesis or melena. Acute upper GI bleeding is assessed by risk scores such as Rockall Score and Glasgow Blatchford Score. Aim: To study the Clinical aspects of Upper Gastrointestinal Bleeding in a Tertiary Care Hospital. Methods: Total 100 patients were included for a period of one year. Patient with age above 18 yrs and below 60yr of both sexes presenting with gastrointestinal bleed were included. All the patients were stabilized & subjected to endoscopic procedure within 72hrs. Severity was assessed by Rockall Score. Result: In this study the most common clinical presentation is melena. Chronic liver disease is the most frequent associated co-morbid condition. There is a association of alcohol with that of upper g.i bleed. Conclusion: Upper G.I Bleed is a common medical emergency. In this study conducted in a tertiary care hospital the most common presentation of upper GI bleed is melena. It is associated with the more incidence of duodenal ulcer. The frequent associated co-morbid condition is chronic liver disease. Alcohol shares a significant role in onset of upper GI bleed.

Keywords Upper Gastrointestinal Bleeding, Melena, Hematemesis, Chronic Liver Disease

1. Introduction

Gastrointestinal bleeding (GI bleed) also known as gastrointestinal hemorrhage is all forms of bleeding in the gastrointestinal tract from the mouth to the rectum. [1] Gastrointestinal Bleeding is typically divided into two main types: Upper gastrointestinal bleeding and lower gastrointestinal bleeding. [2] Upper gastrointestinal bleeding includes hemorrhage originating from the esophagus to the ligament of Treitz. Peptic ulcer bleeding causes more than 60 percent of cases of upper gastrointestinal bleeding, whereas esophageal varices cause approximately 6 percent. Other etiologies include Arteriovenous malformations, Mallory Weiss tear, gastritis and duodenitis and malignancy. [3] Drugs associated with gastrointestinal haemorrhage includes Aspirin, NSAIDs, Prednisolone, warfarin, Clopidogrel, SSRIs. Aspirin, NSAIDs, Prednisolone cause gastrointestinal haemorrhage by Mucosal toxicity. Warfarin, Clopidogrel, SSRIs cause

gastrointestinal haemorrhage by impaired haemostasis. [4] Other relatively common causes include esophagitis, erosive gastritis/duodenitis, vascular ectasia and Dieulafoy's lesions. [5] Acute upper gastrointestinal haemorrhage is a common medical emergency (170 per 100 000 adults annually). Although its incidence may be declining, the mortality rate of upper gastrointestinal haemorrhage remains high, approximately 6-8%. [6] Upper gastrointestinal bleeding is twice as common in men as in women and increases in prevalence with age. [3] GI bleeding can be potentially life threatening, it has been shown that many cases can be safely managed on an outpatient basis. [7] Despite advances in therapy, the in-hospital mortality rate remains high (13 percent) and rebleeding is common (15 percent). [8, 9] Depending on the rate of blood loss, GI bleeding can manifest in several forms and can be classified as overt, occult or obscure. Overt GI bleeding, otherwise known as acute GI bleeding, is visible and can present in the form of hematemesis, "coffee-ground" emesis Melena, or hematochezia. Occult or chronic GI bleeding as a result of microscopic hemorrhage can present as Hemo occult-positive stool with or without iron deficiency anaemia. [10, 11] Upper GI bleeding usually presents with hematemesis (vomiting of fresh blood), "coffee-ground" emesis

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(vomiting of dark altered blood), and/or melena (black tarry stools). Hematochezia (passing of red blood from rectum) usually indicates bleeding from the lower GI tract, but can occasionally be presentation for a brisk bleeding from upper GI source. [12] The presence of frank bloody emesis suggests more active and severe bleeding compared to coffee-ground emesis. [13] Rapid assessment and resuscitation should precede diagnostic evaluation in unstable patients with acute severe bleeding. [14] Once hemodynamic stability is assured, patient should be evaluated for the immediate risk of rebleeding and complications, as well as the underlying source of bleeding. For an acute upper GI bleeding, risk scores such as the Rockall Score and Glasgow Blatchford Score (GBS) have been developed and validated. [7, 15]

2. Material and Methods

The study was conducted in Apollo Hospital Bhubaneswar in the Dept of Gastroenterology.

Total 100 patients were included. The study period was one year i.e Jan 2017-Dec 2017.

Inclusion Criteria: Patients with age more than 18yrs and less than 60 yrs of both sexes presenting with gastrointestinal bleeding irrespective of underlying cause.

Exclusion Criteria:

- Patients who have undergone UGI endoscopy or sigmoidoscopy or colonoscopy within last 1 month
- Patients who did not give consent for procedure
- Patients not fit for endoscopy
- Patients who were having GI bleed following GI surgery

First the patient were, assessed if needed resuscitated followed by necessary clinical and laboratory investigation. After initial hemodynamic stabilization was achieved patients were subjected to endoscopic procedure within 72hrs to determine the cause.

Study Design:

This is a prospective cohort study conducted for one year. Patients were diagnosed as Upper g.i bleed according to clinical presentation and upper GI endoscopy. Severity was assessed with Rockall Score.

Statistical Analysis:

All data were analysed using Chi-square Test. $p < 0.05$ considered as statistically significant and $p < 0.001$ as highly significant.

3. Result

Among 100 patients 82 patients were Male and 18 patients were females.

Clinical presentation of patients Table-1

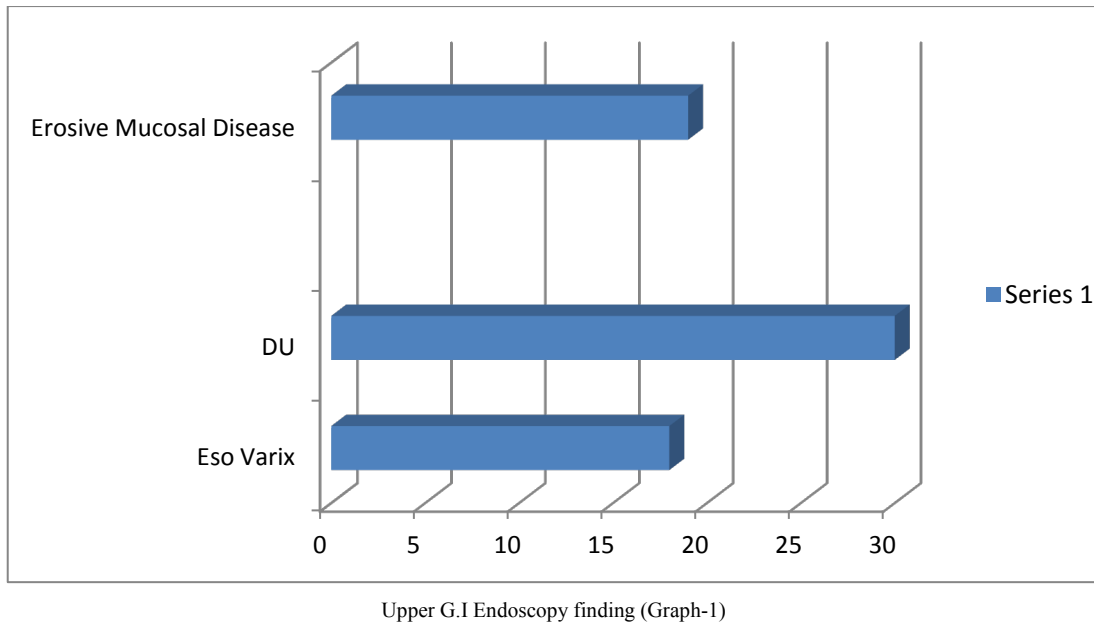
Clinical Presentation	No of Patients
Malena	48
Haematemesis	15
Haematemesis with Malena	35

Associated Co-morbid condition Table-2

Co-morbid Condition	No of Patients
Chronic Liver Disease	18
Previous Upper G.I Bleed	7
Chronic Liver Disease with Previous Upper G.I Bleed	5

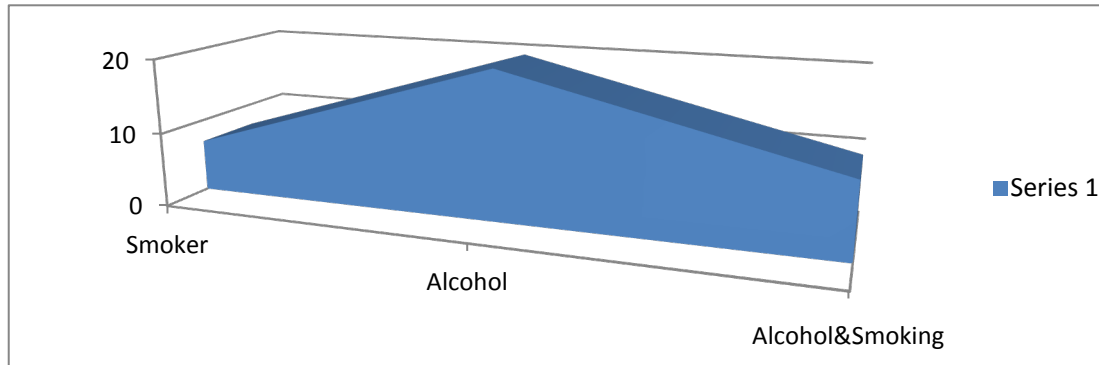
Upper G.I Endoscopy finding Table-3

Upper G.I Endoscopy finding	No of Patients
Eso Varix	18
Duodenal Ulcer	30
Erosive Mucosal Disease	19



Association of Addiction with Upper G.I bleeding Table-4

Addiction	No of Patients
Smoker	7
Alcohol	20
Alcohol with Smoking	10



Association of addiction with Upper G.I bleeding (Graph-2)

It is observed from the study that malena is common presentation in patients with upper g.i bleed. (Table-1) Chronic liver disease is commonly associated co-morbid condition. (Table-2).

And also observed from Table-4 & Graph-2 that there is increase incidence of upper g.i bleed in alcoholics.

4. Discussion

Chronic liver disease refers to disease of the liver which lasts over a period of six months. It consists of a wide range of liver pathologies which include chronic hepatitis, liver cirrhosis & hepatocellular carcinoma. The pathology of alcoholic liver disease consists of three major lesions, with the progressive injury rarely existing in a pure form: fatty

liver, patients with cirrhosis have portal hypertension, alcoholic hepatitis, Cirrhosis. [16] It is worthwhile emphasising that mortality is often due to medical comorbidity, rather than uncontrolled bleeding. [17] In patients with acute upper GI bleeding, upper g.i endoscopy is considered the investigation of choice. [18] Early upper endoscopy within 24 hr of presentation is recommended in most patients with acute upper GI bleeding to confirm diagnosis and has the benefit of targeted endoscopic treatment, resulting in reduced morbidity, hospital length of stay, risk of recurrent bleeding and the need for surgery. [14] In other studies main causes of acute upper GI bleeding is Non-Variceal Upper GI bleed (80-90%) and Variceal Upper GI bleed 10-20%. [19]

5. Conclusions

Upper G.I Bleed is a common medical emergency. In this study conducted in a tertiary care hospital the most common presentation of upper g.i bleed is malena. It is associated with more incidence of duodenal ulcer. The frequent co-morbid condition associated is chronic liver disease. Alcohol shares a significant role in onset of upper g.i bleed.

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