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Clinical and endoscopic profile in acute upper gastrointestinal bleeding in tertiary health care centre- a retrospective study

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Abstract

Background: Acute upper gastrointestinal bleeding (UGIB) is a common medical emergency characterised by haematemesis and/or melaena. All patients presenting with UGIB require prompt assessment using a validated assessment tool. Early assessment identifies patients at high risk of death, of further bleeding and those requiring intervention, including surgery.

Aim of the study: To study clinical and endoscopic profile in acute upper gastrointestinal bleeding in tertiary health care centre.

Materials and methods: The present study reviewed medical records of 100 patients who presented to the outpatient department with upper GI bleeding and underwent GI endoscopy. The age of the participants selected was more than 18 years. Clinical and endoscopic data of these patients was compiled and analysed.

Results: Number of male patients in study group was 79 and number of female patients was 21. The mean age was 50.16 years. It was seen that esophageal varices is the most common findings (33%) followed by peptic ulcer disease (31%). The least common finding was malignancy which was present in only 2 % patients.

Conclusion: Within the limitations of the present study, it can be concluded that esophageal varices was the most common finding followed by peptic ulcer disease in our study population. Malignancy was least common finding.

Keywords: Gi bleeding, Gi endoscopy, esophageal varices

Introduction

Acute upper gastrointestinal bleeding (UGIB) is a common medical emergency characterised by haematemesis and/or melaena. Massive haemorrhage from the upper GI tract may be associated with brighter rectal bleeding. Haemodynamic instability may also feature, with patients presenting with dizziness, syncope or in hypovolaemic shock. Despite the declining incidence of UGIB, advances in therapeutic endoscopy and increased use of acid suppressing medication, there is a significant in-hospital mortality^[1]. All patients presenting with UGIB require prompt assessment using a validated assessment tool. Early assessment identifies patients at high risk of death, of further bleeding and those requiring intervention, including surgery. Many predictive tools have been described for risk stratification of people with UGIB, but there is substantial variation in the outcomes assessed and in methodological quality^[2, 3]. The National Institute for Health and Care Excellence advocates use of the Glasgow-Blatchford Score (GBS) at initial assessment and the full Rockall score after endoscopy to risk stratify all UGIB patients.² Both scores perform similarly in predicting mortality; however GBS predicts an individual's need for intervention and transfusion more accurately, and may therefore be more appropriate as a guide for early clinical decisions^[4]. In patients with suspected upper gastrointestinal bleeding including hematemesis or melena, treatment may be different according to the etiology of the bleeding. However, the evaluation of vital signs, hemodynamic status and appropriate fluid treatment are important in all patients^[5]. If there are hypovolemic shock, rapid pulse rate, high blood urea nitrogen level, decreased urine volume at the time of presentation or previous history of acute bleeding, more aggressive initial monitoring, fluid treatment, and blood transfusion treatment are needed.

However, if there is suspicion of massive bleeding, careful observation and follow up are necessary because early level of hemoglobin in acute bleeding may be normal ^[6]. Hence, the present study was conducted to study clinical and endoscopic profile in acute upper gastrointestinal bleeding in tertiary health care center.

Materials and methods:

The present study was conducted in the Department of Gastroenterology, Sardar Patel Medical College Bikaner Rajasthan. The ethical clearance for the study was approved from the ethical committee of the hospital. We reviewed medical records of 100 patients who presented to the outpatient department with upper GI bleeding and underwent GI endoscopy. The age of the participants selected was more than 18 years. Clinical and endoscopic data of these patients was compiled and analysed.

Exclusion criteria

- Patients below 18 years of age
- Patients with coagulation disorders

All patients in the study received the standard line of management for upper GI bleeding. Patients were subjected to upper GI endoscopy, preferably within the first 24 hours, after taking an informed consent. Endoscopy was performed with pharyngeal anaesthesia with 15% lidocaine local anaesthetic spray.

The statistical analysis of the data was done using SPSS version 11.0 for windows. Chi-square and Student's t-test were used for checking the significance of the data. A p-

value of 0.05 and lesser was defined to be statistically significant.

Results

In the present study, a total of 100 patients were evaluated retrospectively. Number of male patients in study group was 79 and number of female patients was 21. The mean age was 50.16 years. [Table 1] Table 2 shows distribution of patients by endoscopic findings. It was seen that esophageal varices is the most common findings (33%) followed by peptic ulcer disease (31%). The least common finding was malignancy which was present in only 2 % patients. [Fig 1]

Table 1: Age and sex wise distribution of patients

Variables	Number
No. of male patients	79
No. of female patients	21
Mean age (years)	50.16
<=20 (years)	8
21-50 (years)	58
>50 years	34

Table 2: Distribution of patients by endoscopic findings

Endoscopic findings	Number of patients	%
Normal study	13	13
Esophageal varices	33	33
Duodenal ulcer	12	12
Gastric ulcer	22	22
Peptic ulcer disease	31	31
Duodenal erosions	14	14
Gastric erosions	22	22
Malignancy	2	2

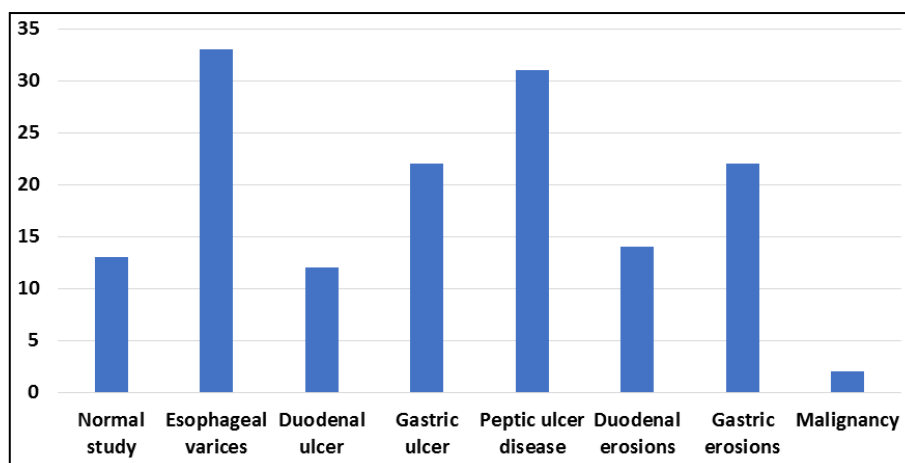


Fig 1: Endoscopic findings

Discussion:

In the present study, we observed that 100 patients were retrospectively evaluated. The study population was male dominated with 79% males. The mean age was 50.16 years. Patients with age >18 years were included in the study. There were 34 patients with more than 50 years age. The most common endoscopic finding was esophageal varices which was seen in 33 % patients and peptic ulcer disease seen in 31% patients. The least common finding was malignancy seen in only 2% patients. The results were compared with previous studies and results were consistent. Dewan KR et al ⁷ studied the clinical and endoscopic profile of acute upper gastrointestinal bleed to know the etiology, clinical presentation, severity of bleeding and outcome.

They included 120 patients at random presenting with manifestations of upper gastrointestinal bleed. Their clinical and endoscopic profiles were studied. Similar to the present study, males were predominant (75%) in their study. Age ranged from 14 to 88 years, mean being 48.76, which was 50.16 in present study. Upper Gastrointestinal Bleeding endoscopy revealed esophageal varices (47.5%), peptic ulcer disease (33.3%), erosive mucosal disease (11.6%), Mallory Weiss tear (4.1%) and malignancy (3.3%). Malghani WS *et al.* ^[8] evaluated the endoscopic findings in patients of UGIB in this part of the world. They studied records of 730 (464 male and 266 females) patients undergoing EGD for UGIB. Mean age of study population was 49.38 years, similar to our study. Age of the youngest

patient was 14 years while the oldest patient was 99 years of age. In the present study, minimum age was 18 years. Similar to our study, the most common endoscopic finding was esophageal varices in 371 (50.8%) patients. They concluded that bleeding from esophageal varices was the most important cause of UGIB in this part of the world and bleeding from duodenal ulcer was quite uncommon as compared to the western world.

Mahajan P *et al.* [9] studied the clinical and endoscopic profile of middle aged and elderly patients suffering from upper GI bleed to know the etiology of the disease and outcome of the intervention. They only included patients above 40 years of age. Majority of the patients were males. They report that the most common causes of upper GI bleed in these patients were portal hypertension-related (esophageal, gastric and duodenal varices, portal hypertensive gastropathy, and gastric antral vascular ectasia GAVE), seen in 53.62% of patients, followed by peptic ulcer disease (gastric and duodenal ulcers) seen in 17.56% of patients. Gastric erosions/gastritis accounted for 15.20%, and duodenal erosions were seen in 5.8% of upper GI bleeds. They concluded that portal hypertension as the most common cause of upper GI bleeding, while the most common endoscopic lesions reported were esophageal varices, followed by gastric erosion/gastritis, and duodenal ulcer. Jain J *et al.* [10] determined the endoscopic profile of UGIB in adult population of rural central India admitted with history of UGIB (hematemesis and/or melena). The study was conducted in rural hospital in central India and they enrolled all consecutive patients aged 18 years and above who were admitted in the hospital ward with the history of UGIB. Among 118 patients who underwent endoscopy, 47.4% had esophageal varices, 27.1% had portal hypertensive gastropathy, 14.4% had gastric erosions, 5.9% each had duodenal ulcers and esophagitis, 5% had gastric ulcer disease, 4.2% each had Mallory-Weiss tear and had gastric malignancy, 1.7% had esophageal malignancy and 16.1% had normal endoscopic findings. They concluded that esophageal varices were the most common cause of UGIB in the adult population of rural central India presenting with UGIB, when diagnosed by video-endoscopy. Rajan SS *et al.* [11] described the patient profile, clinical severity and outcomes of the patients who present with UGIB to the ED of tertiary referral hospitals in Tanzania. The median age was 42 years, and 87 (70.7%) were male. Upper GI endoscopy, was performed on 46 (37.4%) patients, of whom only 8 (17.4%) received endoscopy within 24 h (early UGI endoscopy). All patients who received early UGI endoscopy had a low or moderate clinical Rockall score i.e. <3 and 3–4. No patient with scores of >4 received early UGI endoscopy. Age >40 years was a significant independent predictor of mortality. They concluded that UGIB carried a high mortality rate. Age >40 years and clinical Rockall score ≥ 4 were independent predictors of higher mortality.

Conclusion:

Within the limitations of the present study, it can be concluded that esophageal varices was the most common finding followed by peptic ulcer disease in our study population. Malignancy was least common finding.

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