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NON-VARICEAL UPPER GASTROINTESTINAL BLEED IN PATIENTS WITH CHRONIC LIVER DISEASE

Medical Gastroenterology

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ABSTRACT

Clinical and endoscopic features of chronic liver disease (CLD) patients with non-variceal upper gastrointestinal bleeding (NVUGIB) have been rarely reported. **Aim:** To estimate the prevalence and etiology of NVUGIB in CLD patients who were admitted for UGIB.This is a retrospective study done in department of MGE, KMC Chennai by collecting data from hospital records from the period of January 2021 to June 2021. All patients with CLD admitted for UGIB who underwent esophagogastroduodenoscopy were included. Demographic data, etiology of liver disease, diagnosis from endoscopy records were collected. Etiology and frequency was of NVUGIB was calculated as percentage. A total of 112 patients with UGIB underwent esophagogastroduodenoscopy, of which 58% had variceal bleed while 42% had NVUGIB. Gastroduodenal ulcers were the most frequent source of bleeding (48.3%). NVUGIB are frequent in CLD patients and in hospital mortality of these patients seemed to be greater than those without CLD.

KEYWORDS

non-variceal UGI bleed, chronic liver disease

INTRODUCTION

Acute gastrointestinal (GI) bleeding is a potentially life-threatening emergency that is a common cause of hospitalization with increased morbidity and mortality. Upper gastrointestinal bleeding (UGIB) is defined as bleeding derived from a source proximal to the ligament of Treitz. Bleeding from the upper GI tract is more common than bleeding from the lower GI tract.[1]

Acute upper gastrointestinal bleeding is a serious medical problem in patients with cirrhosis of liver.[2]The most frequent causes of acute bleeding in cirrhosis are from esophageal varices, gastric varices, peptic ulcer disease, portal hypertension gastropathy, reflux esophagitis, mallory-weiss tear, erosive gastropathy and others.[3,4]

In cirrhotic patients, variceal bleeding has been very extensively studied.[5-7] Nonetheless,30% to 40% of cirrhotic patients who bleed may have non-variceal upper gastrointestinal bleeding (NVUGIB), and it is frequently caused by gastroduodenal ulcers.[8,9] Although NVUGIB is not uncommon in cirrhotic patients, clinical and endoscopic features of patients with this complication have been very rarely reported.[5,6,10,11]

This study was undertaken to highlight the clinical spectrum and identification of different etiologies of upper gastrointestinal bleed in patients with liver cirrhosis. This study may prove helpful in establishing clinical and endoscopic correlations and formulating guidelines in patients with cirrhosis of liver presenting with non-variceal UGI bleed.

AIM

1) To estimate the prevalence of non-variceal UGI bleed among patients with chronic liver disease.
2) To identify various etiology of non-variceal UGI bleed

Study And Materials

Study Design - Retrospective Cross Sectional Study.

Inclusion Criteria - Patients who underwent esophago gastroduodeno scopy for UGI bleed among those who were diagnosed to have chronic liver disease by combination of clinical, radiological, histological and endoscopic features.

Exclusion Criteria- Patient who did not give consent for esophagogastroduodenoscopy and those who did not undergo endoscopy for UGI bleed were excluded from the study.

Study Period - January 2021 to June 2021.

Study Methods- Data was collected from hospital records of patient who underwent esophagogastroduodenoscopy after initial resuscitation. A total of 112 patients with chronic liver disease who presented with UGI bleed in our department who underwent esophagogastroduodenoscopy during study period from January 2021 to June 2021 were enrolled. Data regarding demographic variables, clinical features, bleeding characteristics were collected and alongside blood investigations like complete blood count, platelets count, blood grouping, liver function test, prothrombin time / international normalized ratio (PT / INR), coagulation profile and viral serology. Patients were classified under CTP class.After hemodynamic stabilization, usually within 12 hours to 48 hours, each patient underwent endoscopic investigation by standard flexible gastro-duodenal endoscope and diagnostic findings were documented. In cases, when multiple lesions were found in UGI endoscopy, the lesion with active bleeding or recent stigmata of hemorrhage was considered the cause of bleeding.

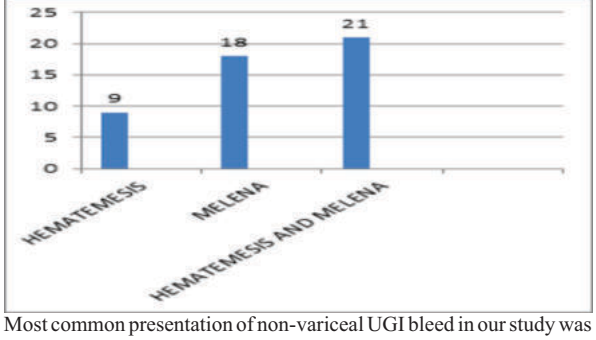
RESULTS

Of 112 patients enrolled in our study male (102) and female (10).

Mean age of the patient was 56.5 years.

Table 1: Clinical Presentation Of Non-variceal UGIB

Clinical presentation	No (%)
Hematemesis	9(18.7%)
Melena	18(37.5%)
Hematemesis and Melena	21(43.8%)



Most common presentation of non-variceal UGI bleed in our study was hematemesis and melena (43.8%).

Table 2: CTP Scores Of Patients With Non-variceal Bleed

CTP score	No (%)
CTP A	5(10.4%)
CTP B	13(27%)
CTP C	30(62.5%)

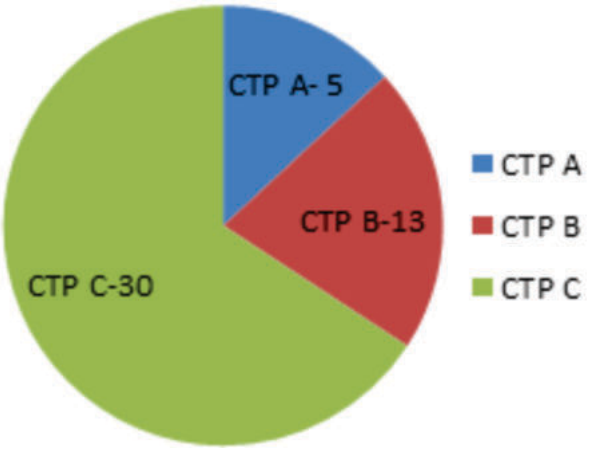


Figure 1: CTP scores of patients with non-variceal bleed

Maximum number of patients in our study group with non-variceal UGI bleed belongs to CTP class C.

Table 3: Etiology Of Chronic Liver Disease

Etiology	No (%)
Ethanol	62(55.3%)
HBV	16(14.2%)
HCV	3(2.68%)
Ethanol + HBV	8(7.1%)
Ethanol + HCV	2(1.8%)
NAFLD	9(8%)
Cryptogenic	10((9%)
HCC	2(1.8%)

Most common cause of liver disease in our study was alcohol related accounting for almost 55.3% followed by Hepatitis B (14.2%).

Table 4: Source Of UGI Bleed

Source of UGI bleed	No (%)
Esophageal varices	56(50%)
GOV	5(4.5%)
IGV	2(1.8%)
Post EVL ulcer	1(0.9%)
Duodenal ulcer	16(14.2%)
Gastric ulcer	5(4.5%)
Mallory Weiss tear	8(7.1%)
PHG	11(9.8%)
GAVE	2(1.8%)
Distal esophagitis	6(5.4%)

Table 5: Source Of Non-variceal UGI Bleed

Source of non-variceal UGI bleed	No (%)
Duodenal ulcer	16(33.3%)
Gastric ulcer	5(10.4%)
Mallory Weiss tear	8(16.7%)
PHG	11(22.9%)
GAVE	2(4.1%)
Distal esophagitis	6(12.5%)

Most common cause of non-variceal UGI bleed among patients with chronic liver disease in our study was gastroduodenal ulcers (43.7% of total non- variceal bleed) followed by PHG (22.9%).

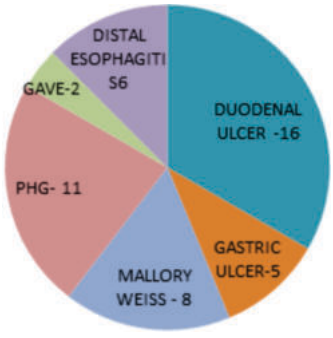


Figure 2: Source of non-variceal UGI bleed

DISCUSSION

112 patients with chronic liver disease who presented with UGI bleed were enrolled in the study with male 102(91%) female 10(9%).Studies by Svoboda et al.,[12]Romcea et al.[13], Olajide et al.[14], also have highlighted male predominance of UGI bleed in cirrhosis .

Mean age of cirrhotic patients with UGI bleed in this present study was 56.5 years which is almost similar to those reported by Svoboda et al.[12] (mean age of 56.9 years) and Romcea et al.[13](mean age 56.8 years). However, Olajideetal.[14] has reported a lesser mean age of 48.5 years.

In the present series, predominant clinical form of upper gastrointestinal bleed was both hematemesis and melenain fiftysix (43.8 %), only melena in twenty four (37.5 %) and only hematemesis in rest forty (18.7%) patients. Hematemesis and melena predominated in 84.17%,melena in 14.81% and hematochezia in 1.01% patients in a series reported by Romcea et al.[13]

Non variceal causes of UGI bleed accounted for 42.9 % of total patients in our study. The majority of non-variceal bleed was gastroduodenal ulcers and accounted for 18.7 % of UGI bleed in liver cirrhosis. Duodenal ulcers were seen more commonly than gastric ulcers. Peptic ulcers with predominance of duodenal ulcers were also noted in studies by Svoboda et al.[12], Romcea et al.[13]

The various etiologies of non-variceal bleed in some series has been highlighted in table below.

Table 6:

Non variceal bleed: Aetiology	Present study	Svoboda et al.[6]	Romcea et al.[7]
Peptic ulcer disease	43.75%	43.1%	55%
Portal gastropathy	22.9%	22.4%	17.5%
Mallory Weiss tear	16.7%	6.9%	6.25%

CONCLUSION

UGI bleed from esophageal varices is a common manifestation in patients with cirrhosis of liver.However, cirrhotic patients do not always bleed from varices. These patients can also bleed from non-variceal or other co-existing mucosal etiologies as well. In our series, we found that one-third patients (42.8%) with liver cirrhosis had UGI bleed of non-variceal etiology, of which the most common was peptic ulcer; duodenal followed by gastric ulcers. Other causes observed were portal hypertensive gastropathy, distal esophagitis and Mallory Weiss tear.

The relatively large number of non-variceal bleeding in cirrhotic patients highlights the importance of UGI endoscopy findings in identifying the etiology of upper gastrointestinal bleeding and therefore the proper management.

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