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To Study the Endoscopic Profile of Upper Gastrointestinal Bleeding In Patients Attending a Tertiary Care Centre Hospital in Kumaon Region of Uttarakhand

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Abstract

Introduction: Acute upper gastrointestinal bleeding (AUGIB) is defined as bleeding proximal to the ligament of Treitz[1] It is one of the common medical emergencies that have a hospital mortality of approximately 7% to 10% [2]. The primary diagnostic test for evaluation of UGIB is endoscopy [7]. Early endoscopy and endoscopic appearance of certain lesions helps to guide care and thereby reduce the costs and duration of hospitalization.

Aim and Objectives: To study the endoscopic profile of upper gastrointestinal bleeding.

Material and Methods: A 2 year hospital based Cross sectional Observational study was conducted in the Department of Medicine in a tertiary care center in kumaon region of Uttarakhand. One hundred patients were taken with UGIB during the study period and were subjected to endoscopy to identify the etiology. The endoscopic profile was analyzed and studied.

Results: In this study total patients were 100. Among them 84% were male while 16% were female. Their age ranged from 18-92 years with a mean of 48 years. Esophageal and fundal varices was the most frequent cause of bleeding 35 (35%) followed by Peptic ulcer disease 17 (17%) , Erosive mucosal disease 14 (14%) gastric and esophageal malignancy 9 (9%) , Mallory–Weis tear 4 (4%) and Dieulafoy's lesion 1 (1%).

Conclusion: In this study, esophageal and fundal varices was the commonest cause of UGIB , followed by peptic ulcer disease and erosive mucosal disease.

Keywords: Upper GI endoscopy, Upper GI bleeding, Varices, Ulcer

Introduction

Acute upper gastrointestinal bleeding (AUGIB) is defined as bleeding proximal to the ligament of Treitz[1]

.It is one of the common medical emergencies that have a hospital mortality of approximately 7% to 10% [2]. The incidence of Upper gastrointestinal bleeding (UGIB) is estimated to range from 50 to 150 cases per 100 000 population in developed countries [3].

Upper gastrointestinal bleeding (UGIB) is a common gastrointestinal emergency presenting as haematemesis and/or melena and rarely as hematochezia and is associated with significant morbidity and mortality. More than 350,000 patients are hospitalized each year in the United States of America for UGIB and mortality rates of 5% to 11% have been reported representing a serious and life-threatening entity.

The primary diagnostic test for evaluation of UGIB is endoscopy [4]. Early endoscopy and endoscopic appearance of certain lesions helps to guide care and thereby reduce the costs and duration of hospitalization. There is paucity of data on endoscopic profile of patients with upper GI bleeding in our country. Therefore, this study was planned to identify endoscopic profile of patients with upper GI bleeding presenting to our hospital and particularly this region.

Material and Methods

It was a hospital based Cross sectional Observational study conducted in the Department of Medicine in Government Medical College and Associated Dr. Susheela Tiwari Memorial Govt. Hospital, Haldwani. The records of 100 patients who underwent endoscopy for upper GI bleeding from January 2018 to October 2019 were analyzed.

Inclusion Criteria

- Cases presented with upper GI bleed aged 18 years and above in medicine department.

Exclusion Criteria

- Patients unfit for gastrointestinal video endoscopy (Haemodynamically unstable, Oropharyngeal obstruction etc).
- Patients not willing to participate.

Data was collected from endoscopy records and patients medical records including age, gender , clinical presentation and associated factors were noted and analyzed.

Results

Observations were drawn from upper GI endoscopic study of 100 successive patients from a period of Jan 2018- Oct 2019 with a provisional diagnosis of upper GI bleeding. Out of 100 numbers of cases, 84 were males and 16 were females (Table No.1). Majority of the patients, 49 (49.0%) belonged to the age group 41 - 60 years (Table No. 2)

Table no.1: Distribution of patients according to sex.

	Frequency(n=100)	Percentage (%)
Male	84	84.0%
Female	16	16.0%

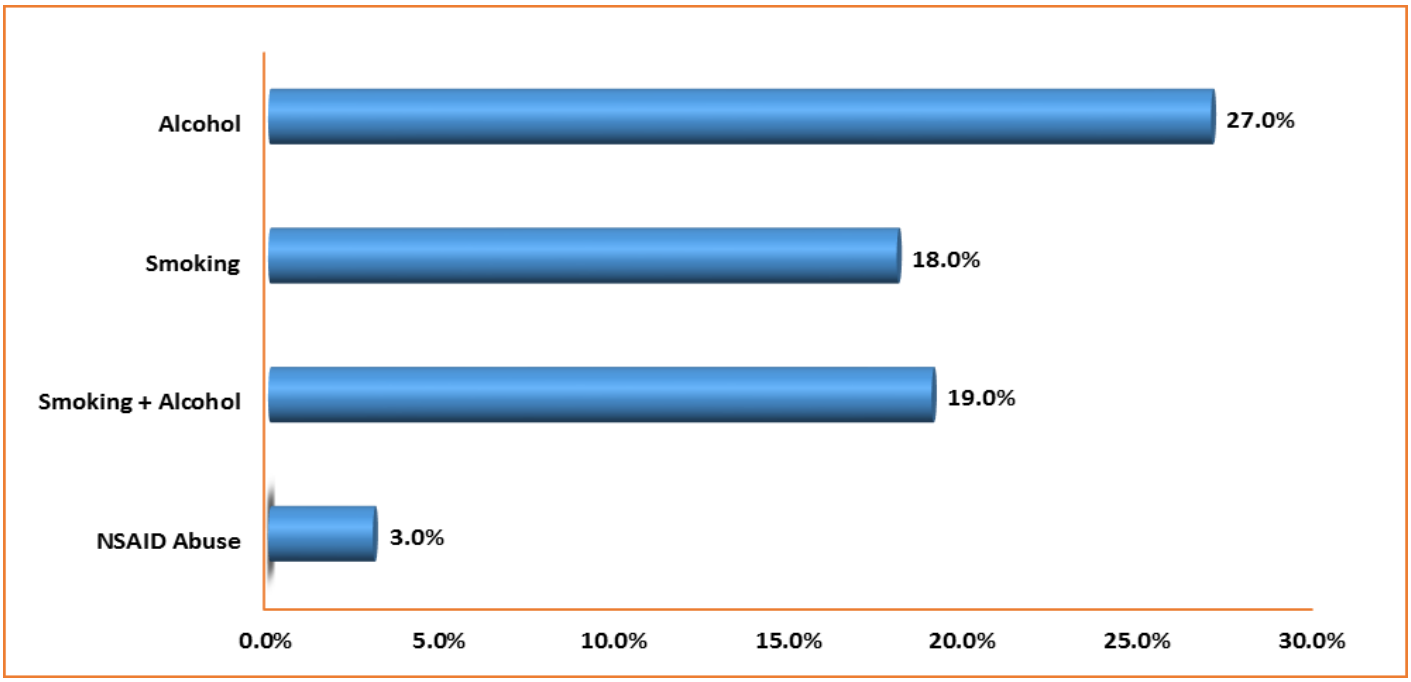
Table no.2: Age distribution of patients

Age in years	No. of patients (n=100)	Percentage (%)
< 21	4	4.0%
21 – 30	13	13.0%
31 – 40	14	14.0%
41 – 50	23	23.0%
51 – 60	26	26.0%

61 – 70	10	10.0%
> 70	10	10.0%
Mean±SD (Range)	48±16 (18 - 92)	
Median (IQR)	47 (35 - 59)	

History of alcohol intake was present in 27 (27.0%) patients, smoking was present in 18 (18.0%) patients and both history of smoking and alcohol was present in 19 (19.0%) patients. NSAID abuse history was present in 3 (3.0%) patient (Figure No. 1). After studying the clinical profile of the patients included in the study, it was seen that the majority of the patients 38 (38.0%) presented with haematemesis and malaena. Haematemesis alone was reported in 37 (37.0%) patients while 25 (25.0%) had malena alone.

Figure No.1: Risk Factor



In this study, after upper GI endoscopy data were compiled and studied, it was found that the most common type of lesion in these patients with upper GI bleed was esophageal and fundal varices 35 (35%) followed by peptic ulcer disease 17 (17%) , erosive mucosal disease 14 (14%) , gastric cancer 9 (9%), Mallory Weiss tear 4 (4%) and 1 (1%) had Dieulafoy's lesion. 9(9%) patients had normal Upper GI endoscopy (Table No. 3).

Table No. 3: Endoscopic Findings of upper GI bleed.

Endoscopic Findings	No. of patients (n=100)	Percentage
Esophageal varices	13	13.0%
Esophageal varices with duodenal ulcer	2	2.0%
Esophageal varices with portal hypertensive gastropathy	18	18.0%
Ulcerative growth in esophagus	7	7.0%

Fundal varices with Esophageal varices	1	1.0%
Esophagitis	2	2.0%
Gastritis	2	2.0%
Gastric ulcer	10	10.0%
Gastric varices	1	1.0%
Gastric ulcer and duodenal ulcer	1	1.0%
Gastritis with duodenitis	1	1.0%
Erosive mucosal disease	11	11.0%
Duodenal ulcer	5	5.0%
Duodenal ulcer with erosive mucosal disease	1	1.0%
Hiatus hernia with reflux esophagitis	5	5.0%
Mallory Weiss tear	4	4.0%
Duodenitis	3	3.0%
Ulcerative growth in stomach	2	2.0%
Portal hypertensive gastropathy	1	1.0%
Dieulafoy's lesion in stomach	1	1.0%
Normal	9	9.0%

Discussion

In our study out of total 100 patients, 84 (84%) were males and 16 (16%) were females. The M:F ratio was 5.2:1. According to Anand D et al .[4] M:F ratio was 5:1 , which was similar to our study.

Nearly similar male/female ratio was observed in the study done by Dewan KR et al.[5]. According to a study done by Kashyap R et al.[6] in 2005, among one hundred and eleven patients, 87 (78.4%) were males and 24 (21.6%) were females with M:F ratio 3.6:1.

The Mean ± SD age of the patients in our study was 48±16 years (Range: 18 - 92 years) and Median (IQR) was 47 years (IQR: 35 - 59 years). Similar results were observed by Kashyap R et.al. , also we observed the similarity in mean age of our study with Gurung RB et al[7], Singh SP et al[8]., and Dewan KR et al[5].

As per our study out of 100 patients, history of alcohol intake was present in 27 (27.0%) patients, history of smoking was present in 18 (18.0%) patients, both history of smoking and alcohol was present in 19 (19.0%) patients and NSAID abuse history was present in 3 (3.0%) patients. According to a study by Anand D et al.[4] and Shyamsundar C.M. et al.[9] history of alcohol was the most common associated risk factor.

After studying the clinical profile of the patients included in the study, it was seen that the majority of the patients 38 (38.0%) presented with haematemesis and malaena. Haematemesis alone was reported in 37 (37.0%) patients while 25 (25.0%) had malena alone.

Similar findings were observed by Kashyap R et al.[6] and Anand D et al.[4]

In our study the most common cause of UGIB was esophageal and fundal varices followed by peptic ulcer disease. Similar findings were shown by Anand D et al, Shrestha BP et al.[10] and Dilawari D et al.[11]

Peptic ulcer disease was the most common cause of UGIB in Dewan KR et al.[5], Kashyap R et al.[6], Gurung RB et al.[7] and Singh SP et al[8] which did not correlated with present study.

In the present study, 14 (14%) cases had gastric erosions/gastritis, which correlated with Anand D et al[4], Shrestha BP et al.[10] , Dewan KR et al.[5] , Kashyap R et al.[6] and Gurung RB et al.[7] studies.

In the present study, 9 (9%) cases had gastric and esophageal malignancy. Similar findings were observed in studies conducted by Gurung RB et al.[7] and Lakhwani MN et al[12] In the present study, 4 (4%) cases had Mallory–Weis tear which correlated with study of Dewan KR et al.[5].1 (1%) had Dieulafoy's lesion which was closer to Anand D et al[4] study and Singh SP et al[8] study.

When classified into variceal and non variceal cause of bleed, nonvariceal bleed predominated in nearly all age groups in present study. . Similar results were shown by Shrestha BP et al.[10,] and Kashyap R et al.[6]

The present study showed that varices had earlier presentation compared to non variceal cause of bleed. Similar results were shown by Shyamsundar C. M.et al[9] and Shrestha BP et al[10].

The present study, showed that almost all types of UGIB were more common in males than in females which was similar to what was reported in other studies by Shrestha BP et al[10] which would have been due to higher prevalence of alcohol consumption among males.

Conclusion

Early upper GI endoscopy is of paramount importance in the diagnosis as well as treatment. Upper gastrointestinal video endoscopy is the most commonly performed and superior modality of diagnostic tool in cases of upper gastrointestinal bleeding. In our study the most common cause of UGIB was esophageal and fundal varices. Peptic ulcer was the second most common cause of upper GI bleed followed by erosive mucosal disease.

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