



STUDY OF CLINICAL AND ENDOSCOPIC PROFILE OF UPPERGASTROINTESTINAL BLEED IN A TERTIARY CARE HOSPITAL

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ARTICLE INFO

Article History:

Received 4th November, 2018

Received in revised form 25th

December, 2018

Accepted 23rd January, 2018

Published online 28th February, 2019

Key words:

Upper gastrointestinal
bleed, Varices, Hematemesis, Malena

ABSTRACT

Upper gastrointestinal bleeding is an alarming state of emergency with high mortality rates and varied etiology. Though the magnitude of cases is so high there is less number of literatures depicting the statistical data in UGI bleed. Our study aims at statistical analysis of various parameters in the profile of patients with UGI bleed in our tertiary care hospital.

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INTRODUCTION

Upper gastrointestinal bleeding (UGIB) is a common gastrointestinal (GI) emergency and mortality rates of 5% to 11% have been reported representing a serious and life-threatening entity, despite advances in diagnosis and treatment. The epidemiology of UGIB varies among population and there is a paucity of data on UGIB and the factors associated with morbidity and mortality from India. This study was planned with an aim to identify clinical and endoscopic profile of patients with UGIB coming to our hospital, which is a tertiary referral centre and to study the factors associated with etiology, morbidity and mortality.

MATERIALS AND METHODS

The main aim of the study was to determine the common aetiologies of upper gastrointestinal bleeding inpatients presenting to Govt Rajaji Hospital, Madurai and to evaluate variceal bleed as an initial presenting feature in chronic liver disease patients, and also to assess the risk factors associated with rebleed and mortality. This study was conducted among 100 patients who presented with upper GI bleed and underwent upper GI endoscopy at Government Rajaji Hospital, Madurai, during the study period of 6 months. In this Descriptive Observational study, patients undergoing upper GI endoscopy for evaluation of upper GI bleed comprising hematemesis or/and melena, aged > 14years,

both Male and Female were included after getting informed written consent. Patients with age < 14 years, with known history of bleeding diathesis and those who are hemodynamically unstable were excluded.

Clinical parameters, Laboratory values, Endoscopic finding were assessed and documented and appropriate therapy was provided. Patients were observed post procedure and treated as inpatient or outpatient based on their health status. Follow up and review was done regularly. The obtained data were recorded and analysed. Statistical analysis was done using computing system with the recent available tool – IBM SPSS statistics version 21. Statistical values were interpreted and significance recorded and results were reported.

RESULTS

Table 1 Age distribution among study population

Age in Years	Frequency	Percentage %
<20	2	2
21-30	12	12
31-40	23	23
41-50	29	29
51-60	25	25
61-70	7	7
>70	2	2
Total	100	100

In this Study, total samples of 100 patients, most of them falls under 4th and 5th decade. Age 40 -50 years comprises 29%; 50-60 years comprises 25% and 30-40 years comprise 23%; 20-30 years comprises 12%.

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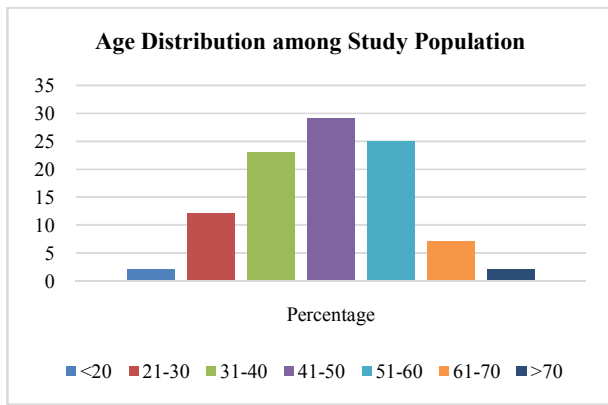
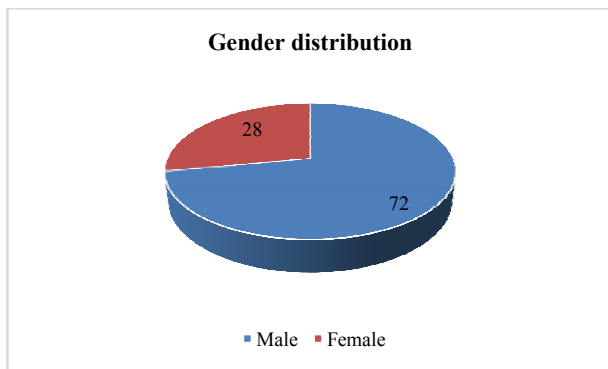


Table 2 Gender distribution among the study population

Sex	Frequency	Percentage
Male	72	72.0
Female	28	28.0
Total	100	100



Sex distribution shows more of males contributing 72% and females 28%. This reflects more prevalence of upper GI bleed in males.

Table 3 Distribution of symptoms among study population

Symptoms	Frequency	Percentage
Hemetemesis only	48	48
Melena only	19	19
Both Hemetemesis & Melena	33	33
Total	100	100

Hemetemesis alone occurred in 48% of patients. Melena alone occurred in 19% of patients. Both Hemetemesis and melena occurred in 33% of patients

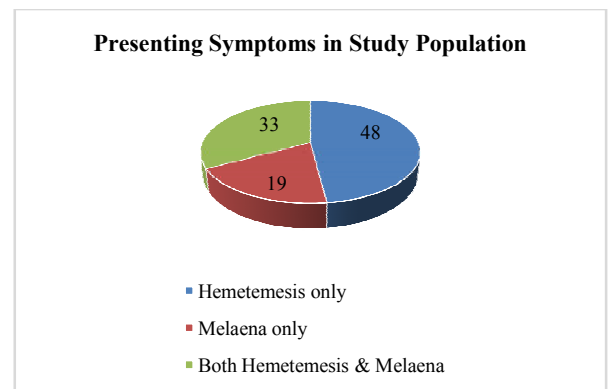


Table 4 Distribution of Endoscopic diagnosis among study population:

Endoscopic Diagnosis	Frequency	Percentage
Varices	36	36
PUD	25	25
Erosive Duodenal Disease	10	10
Esophagitis	3	3
Mallory Weiss Tears	6	6
Neoplasm	7	7
Vascular Lesions	2	2
No identifiable lesions	11	11
Total	100	100

Analysing the etiology of upper GI bleed in this study revealed Variceal bleeding as the most common cause in our hospital, which is a tertiary referral centre in this region. Variceal bleeding occurred in 36% of patients. Next to varices is the peptic ulcer disease which constituted 25%. Other etiological findings in decreasing order is as Erosive gastro duodenal disease 10%, Neoplasm7%; Mallory-Weiss tear 6%, Esophagitis 3%, vascular ectasia 2%. No identifiable lesions were found in 11% of the patients enrolled in the study.

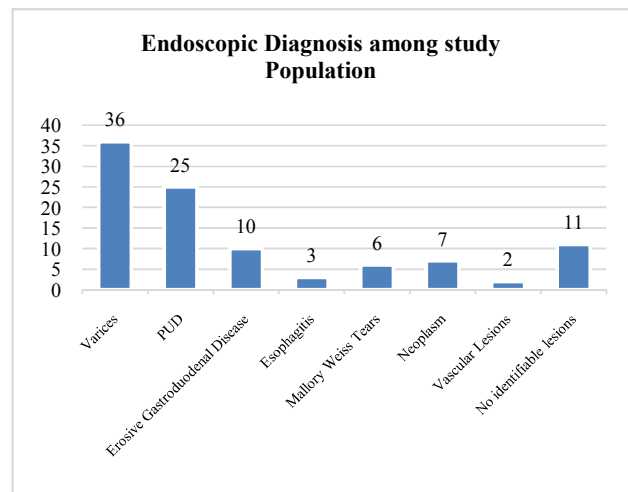


Table 5 Distribution of risk factors among study population

Risk Factor	Frequency	Percentage
Alcohol	44	44%
NSAIDs	15	15%
Antiplatelets	4	4%
Smoking	11	11%

Table 6 Distribution of Co-morbidity among study population

Co morbidity	Frequency	Percentage
Chronic Kidney Disease	7	7
Ischemic Heart Disease	9	9
Congestive Cardiac Failure	3	3

Among the study population, co-existing morbidities were found in 19% of patients. Chronic kidney disease was found in 7%, Ischemic heart disease in 9% and Heart failure in 3% of patients.

Table 7 Pre-existing CLD among variceal patients in study population

Pre Existing Liver Disease	Yes	No
No. of Patients	21	79

Information regarding pre-existing liver disease was recorded from history and previous records and found to be in 21% of the study population.

Table 8 Re-bleed among study population:

Rebleed	Frequency	Percentage
Present	16	16
Absent	84	84

Rebleed after the initial episode and after diagnostic endoscopic procedure was found in 16% patients. 50% of them were due to variceal bleed and other 50% are peptic ulcer related.

Mortality Among Study population

Overall, mortality occurred in 10% of study population. In this study overall mortality of 9% occurred in males and 1% in females among study population.

Table 9 Distribution of mortality in study population

Sex	Total Patients		Mortality	
	Frequency	Percentage %	Frequency	Percentage %
Male	72	12.5%	9	12.5%
Female	28	3.6%	1	3.6%

Among 72 male patients in this study, death occurred in 9 of them constituting 12.5% of death among males. In case of female patients, death occurred in one patient constituting 3.6%.

Table 10 Distribution of mortality among various aetiologies in study population

Diagnosis	Patients		Mortality	
	Frequency	Percentage %	Frequency	Percentage %
Varices	36	16.7%	6	16.7%
PUD	25	12%	3	12%
Malignancy	7	14.3%	1	14.3%

In the study population mortality occurred in 6 patients (6%) due to variceal bleed, 3 patients (3%) due to PUD and in one patient (1%) due to neoplasm. Mortality within each etiology shows 16.7% mortality among variceal bleed, 14.3% among neoplasm and 12% among PUD patients.

DISCUSSION

The study conducted with aim of finding the pattern of upper GI bleed in our locality, the results were analysed and showed similarities and variations when compared with similar studies conducted in various parts of India. The results analysed were discussed with relation to each variable. Incidence of UGIB in the study population was more among 40–50 years of age, followed by 50–60 years of age and then 30–40 years of age. In a study done by Rathi *et al.* in Western India the mean age of patients presenting with UGIB was 42 years. In a study by Lakhwani *et al.* In 2000, mean age of patients were 51.9 years. Male patients comprised 72% of study population and females 28% of study population. In Deep Anand *et al.* study UGIB was found to be more common in men (83.33%) as compared to women (16.66%) (2).

Symptoms distribution among study population was, Hematemesis alone was recorded in 48% of patients and melena alone was recorded in 19% of patients. Both occurred in 33% of study population. Deep Anand *et al.* observed 27.19% of isolated hematemesis, 64% patients presented with complaints of hematemesis and melena, 12.28% isolated

melena, 0.87% patient presented with hematochezia (2). Analysing the etiology of upper GI bleed using upper GI scopy it was found that variceal bleed as the most common finding constituting 36% of study population. Peptic ulcer disease was the second common cause with 25% of study population. Other findings include Erosive gastro duodenal lesions 10%, Neoplasm 7%, Mallory Weiss tear 6%, Esophagitis 3%, other lesions 2%. No identifiable lesion was recorded in 11% of study population. Referral to tertiary care, patient's refusal to evaluation of GI bleed in cases of suspected acute erosive gastritis, higher percentage of alcohol consumption in the study population might contribute to variceal bleed as most common cause. Study done at Dehradun- Northern India by Deep Anand *et al.* revealed 56.14% patients had portal HTN related esophageal and fundal varices, 14.91% had gastric and duodenal ulcer, 12.28% had gastric erosions/gastritis, 8.77% had Mallory-Weiss tear, 4.38% had gastric malignancy(2) Anand *et al.* from North India, causes of bleeding were esophageal varices in 45.5%, duodenal ulcer in 25%, gastric ulcer in 5% and gastritis in 8.5%.[12] Dilawari *et al.* Found variceal bleeding due to portal hypertension (36%) as the most frequent cause followed by peptic ulceration (24%) and gastric erosions (19%).[13] Differing with other studies, was the one done at coastal Odisha in 2013, most common cause in endoscopic diagnosis was duodenal ulcer in 57.6% patients, variceal bleed in 12.8%, gastric ulcer in 1.8%, Mallory-Weiss tear in 1.8%, erosive gastritis in 1.8% patients and malignancy comprised of 7.7%[8].

Alcohol was found as risk factor among the population. 44% study population had alcohol. 15% had history of NSAIDs intake. 4% had Anti-platelet drug. History of Smoking was recorded in 11%. The morbidity and mortality was more when associated co morbid conditions existed. CKD was recorded in 7%, Ischemic heart disease in 9%, Heart failure in 3% of study population. Pre-existing liver disease was recorded in 21% (21 patients) of study population. Among 36 patient with variceal bleed, 14 (38.8%) were new patients who had not been diagnosed to have liver disease previously. The initial presenting feature which made them sought medical advice is the UGIB.

Overall mortality occurred in 10% of patients. 6% occurred due to variceal bleed, 3% due to peptic ulcer disease and 1% due to neoplasm. Mortality within each category revealed higher percent among variceal bleed followed by neoplasm. Mortality was associated more with patients who suffered other organ failure. Anand *et al.* study shows overall mortality of 21% among study population, with portal hypertensive group being the common followed by peptic ulcer disease. In a study by Chalasani *et al.* [22] a total of 231 subjects were included and the overall mortality rates were 14.2%.

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How to cite this article:

Kannan Mariappan., Ramani Ratnavel., and Krishnananth Pandiarajan (2019) ' Study of Clinical and Endoscopic Profile of Uppergastrointestinal Bleed in A tertiary Care Hospital ', *International Journal of Current Advanced Research*, 08(02), pp. 17195-17198. DOI: <http://dx.doi.org/10.24327/ijcar.2019.17198.3213>
