

CHRONIC LIVER DISEASE (CLD); FREQUENCY IN PATIENTS PRESENTING WITH UPPER GASTROINTESTINAL BLEED (UGIB) AT NISHTAR HOSPITAL, MULTAN

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ABSTRACT... Objective: To determine the frequency of chronic liver disease in patients presenting with upper gastrointestinal bleeding (UGIB) at Nishtar Hospital, Multan. **Study Design:** Descriptive case series. **Duration of study:** Six months from August 2009 to January 2010. **Setting:** Department of Internal Medicine, Nishtar Hospital Multan. **Methodology:** A total of 88 patients with upper GI bleed were registered. Prior permission was taken from Institutional Ethical Committee to conduct this study. Informed consent was taken from each patient. Upper GI Endoscopy was done to find out the source of bleeding. For identification of each patient, personal data was collected. All the data collected were entered and analyzed using SPSS-10. **Results:** Mean age was 41.64 ± 13.56 years with 49 (55.70%) male patients and 39 (44.30%) female patients. Majority of the patients 38(43.18%) were between 36-50 years of age. In our series frequency of chronic liver disease was 56.82%. **Conclusions:** Chronic liver disease is the most common cause of upper GI bleeding in our setting.

Key words:Chronic liver disease, Upper GI bleeding, Esophageal varices.

INTRODUCTION

Chronic liver disease (CLD) is spectrum of two entities i.e. chronic hepatitis and cirrhosis. Chronic hepatitis represents a series of liver disorders of varying causes and severity in which hepatic inflammation and necrosis continue for at least 6 months¹. Several categories of chronic hepatitis have been recognized. These include chronic viral hepatitis, drug induced chronic hepatitis, alcoholic hepatitis and autoimmune chronic hepatitis etc. Chronic hepatitis may evolve into cirrhosis.

Upper GI bleeding (UGIB) is defined as bleeding which occurs proximal to ligament of Treitz. It remains a significant source of mortality for both emergency admissions (11%) and inpatients (33%)². UGIB may present as severe bleeding with hematemesis, hematochezia and hypotension or as gradual bleeding with melena. Approximately 90% of the patients with cirrhosis will develop gastroesophageal varices over ten years but only one third of them will bleed³.

The history and physical examination is seldom helpful in making diagnosis about the site of bleeding but helps in determining the cause of bleeding. It may reveal jaundice, ascites, or other signs of hepatic disease; a

tumor mass; or bruit from an abdominal vascular lesion. Exact site of UGIB can be ascertained by investigations. Esophagogastroduodenoscopy (EGD) almost always reveals the source of UGIB; its utility and accuracy have been well documented in the literature^{4,5}. Arteriography may demonstrate that a lesion is present but it may not reliably identify bleeding site unless bleeding is brisk (>1 ml/min).

Chronic liver disease is more common in our part of world and with advancing disease it results in esophageal and fundal varices which may rupture and bleed. In a study conducted at PIMS Hospital Islamabad, 552 patients of upper GI bleeding were evaluated to find out the cause of bleeding. Chronic liver disease was present in 44% of the patients⁶. In another study conducted at Raheem Yar Khan, 892 patients with upper GI bleeding were evaluated. Chronic liver disease was present in 580 (65%) cases⁷. Present study was designed to see the frequency of chronic liver disease in patients presenting with upper GI bleeding at Nishtar Hospital Multan.

OBJECTIVE

To determine the frequency of chronic liver disease in patients presenting with upper GI bleeding at Nishtar

Hospital Multan.

MATERIALS AND METHODS

This descriptive case series was conducted in the Department of Internal Medicine, Nishtar Hospital, Multan during the period from August 2009 to January 2010. Prior permission from Institutional Ethical Committee was obtained to conduct this study and informed consent was taken from each patient. A total of 88 patients with upper GI bleeding were registered and upper GI endoscopy was done to find out the source of bleeding. Data were entered and analyzed in SPSS-10.

RESULTS

A total of 88 patients were included in the study. It included 49 (55.70%) male patients and 39 (44.30%) female patients with male to female ratio of 1.3:1 (Table-I).

Gender	No. of patients	%age
Male	49	55.70
Female	39	44.30

Majority of the patients 38 (43.18%) were between 36-50 years of age. There were 3 patients (3.41%) of age more than 65 years (Table-II).

Age (years)	No. of patients	%age
<20	05	05.68
21-35	22	25.00
36-50	38	43.18
51-56	20	22.73
>65	03	03.41

Mean age ± SD = 41.64 ± 13.56 years

There were 54 (61.36%) patients who presented with both hematemesis and melena, 19 (21.59%) patients had melena and 15 (17.05%) patients had hematemesis alone (Table-III).

Out of total 88 patients frequency of chronic liver disease

Complaints	No. of patients	%age
Hemetemesis / melena	54	61.36
Hemetemesis	15	17.05
Melena	19	21.59

in our series was 50 (56.82%). Out of these 50 patients having chronic liver disease, 3 (6%) were less than 20 years of age, 11 (22%) were 21–35 years, 24 (48%) were 36–50 years, 10 (20%) were 51–65 years and 2 patients (4%) were > 65 years of age (Table-IV).

Age (years)	No. of patients with CLD	%age
<20	03	06.0
21-35	11	22.0
36-50	24	48.0
51-56	10	20.0
>65	02	04.0

Out of the 50 patients having chronic liver disease, 29 patients (58%) were male and 21 (42%) were females (Table-V).

Gender	No. of patients	%age
Male	29	58.0
Female	21	42.0

DISCUSSION

Upper gastrointestinal bleeding is common medical emergency and remains a major cause of morbidity and mortality,⁸ accounting for up to 8% hospital admissions⁹. It is also associated with enormous financial burden on health services¹⁰. The prevalence is 170 cases per 100,000 per year, whereas incidence varies from 50-150 per year in USA and 100-107 per 100,000 per year in UK^{11,12}. More recent epidemiological surveys show a

decrease in incidence of all causes of upper gastrointestinal bleeding¹³. Mortality ranges between 3 and 14% and is high with increasing age.

Endoscopy is the primary diagnostic modality for determining the cause of bleeding. In 90% of cases upper gastrointestinal endoscopy is the relatively safe procedure⁹. The most common cause of upper gastrointestinal bleeding in our setting is esophageal varices as compared to peptic ulcer in western countries^{14,15}. Perhaps it is due to the infectious diseases which are common and viral hepatitis has high prevalence rate. The common risk factor of upper GI bleeding are cirrhosis of liver due to hepatitis B & C¹⁶.

In our study, mean age of the patients was 41.64 ± 13.56 years with peak incidence in 36–50 years. These figures are in agreement with the local literature. Shaikh and associates¹⁷ while determining the causes and risk factors of upper gastrointestinal bleeding in patients presenting at Civil hospital Karachi, have reported mean age of the patients as 40.56 ± 15.4 years. Sixty five percent of patients were between 20-50 years of age. Similar findings have been reported in other local studies by Iqbal¹⁸ and Sabir et al¹⁹. Qari²⁰ in a Saudi study has reported mean age of the patients as 51 years (range 14-90 years). Peak incidence in western countries is at 5th and 6th decade^{12, 21}. This difference could be due to higher average life span in western population.

In present study, there were 55.70% male and 44.30% female patients of UGIB with male to female ratio of 1.3:1. Rehman and associate²² in Peshawar showed that out of 432 patient 61.5% were male and 38.5% female. Khokhar et al²³ and Qureshi et al²⁴ also concluded that number of male patients were greater than that of females in Pakistan. Iqbal also had male to female ratio of 1.5:1 in his study¹⁸. Qari²⁰ has reported male to female ratio of 1.59:1 (43:27). Jutabha and Jensen have reported that the incidence was twice as common in males as in females, and it increased with age²⁵.

In our study, the frequency of chronic liver disease (esophageal varices) was 56.82%. Our study results coincide with many studies. Several local studies have

demonstrated that esophageal varices is the leading cause of UGIB in Pakistan.

Shaikh and associates¹⁷ have revealed that bleeding varices was the commonest cause of acute upper gastrointestinal hemorrhage (59.1%). Majority of other studies carried out in Pakistan concluded that esophageal varices is the commonest cause of upper gastrointestinal bleeding^{16, 26, 27}. Few international studies have also showed esophageal varices as the leading cause of acute upper gastrointestinal haemorrhage. Misra has reported that the most common finding at endoscopy was esophageal varices constituting the largest group of patients, (57%) in her study²⁸. Svoboda also reported esophageal varices as cause of upper GI bleeding in 57.4% of the cases²⁹. This can be explained by the much higher incidence of liver cirrhosis due to Hepatitis B and C viruses in our country compared to that in Western countries. While in Western literature esophageal varices is less common cause of UGIB as mentioned by Villanueva et al³⁰ where variceal bleeding was 15%. In the National American Society for Gastrointestinal Endoscopic Bleeding Survey (ASGE) on UGI tract involving 2,225 patients, esophageal varices was present in 15.4% patients³¹.

In our study more than 70% of the patients having esophageal varices were more than 36 years of age indicating high incidence of chronic liver disease in elder age group. Shaikh et al has mentioned that majority of patients with esophageal varices were in age group 20-30 years (22%)¹⁷. The reason may be the more prevalence of cirrhosis of liver at younger age.

Despite considerable advances during the last decades, acute upper gastrointestinal bleeding (UGIB) remains one of the most serious and potentially life-threatening medical emergencies that require hospitalization and careful monitoring of the patients.

Patients with varices as a source of bleeding had a greater mortality than patients with bleeding from other causes. This effect may be attributed to the underlying chronic liver disease, which appeared as an independent predictor of mortality in the multivariate analysis.

Present study has limitations as it was conducted in a single hospital. Sample size was small and majority of patient in our study belongs to low socioeconomic group so the findings cannot be generalized in all groups.

CONCLUSIONS

Chronic liver disease is the most common cause of upper GI bleeding in our setting.

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You cannot depend on your eyes
 when your imagination is out of focus.

Mark Twain