Research Paper Medical sciences

CLINICAL STUDY OF RISK FACTORS IN UPPER GASTROINTESTINAL BLEEDING- A CASE SERIES

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ABSTRACT

Upper gastrointestinal bleeding (Upper GI bleed) is one of the most important cause of hospitalizations in our country. Etiologies varies in different age groups, races and geographical areas. Our study is aimed at knowing the important risk factors among patients with upper GI bleed, to compare the results with the other studies and prognosticate the patients based on these risk factors. This study was conducted among 50 patients in our hospital. A significant number of patients had underlying mucosal erosions secondary to the NSAID and alcohol abuse. Esophageal varices were noted as a second important cause mostly among alcoholics. Over the counter usage of drugs was an important factor accounting for this clinical picture in India. Old age group carries a poor prognosis.

KEYWORDS Upper GI bleeding, NSAIDS, risk factors.

INTRODUCTION:

The Upper GI bleeding means bleeding from the lesions above the ligament of Trietz, commonly manifested as hematemesis and melena. Melena develops with 50-100ml of blood loss, Where as hematochezia requires about 1000ml. upper GI bleed may present with hematochezia in 10% of patients. Most common causes of upper GI bleed are peptic ulcer, esophageal varices, Mallory weiss tear which are secondary to drugs, infections or portal hypertension. Over the counter drug abuse especially in rural areas is an important cause of upper GI bleed in countries like India.

AIM OF THE STUDY

The present work was undertaken to study the clinical gastrointestinal symptoms if upper GI bleed with variable etiology with a view to evaluate the common etiology as the scenario is changing towards(NSAIDS and Alcohol abuse).

OBJECTIVES:

- To establish common etiology in upper GI bleed
- To know the prognosis
- To identify the risk factors like

Previous ulcer disease
Smoking
Alcohol
Old age
Multiple drugs

MATERIALS AND METHODS

Fifty patients who were admitted to the government general hospital with significant upper GI bleed were included in the study. Various etiologies of upper GI bleed were assessed to evaluate the common one and to know the prognosis. Upper GI endoscopy was performed in all these patients.

CASE STUDY

A total of 50 patients with significant upper GI bleeding presenting with symptoms of hematemesis and or are melena, admitted into intensive care unit over a period of 12 months were taken for the study. The following parameters analyzed among these patients to know about the various etiologies

- Urban versus rural
- Age, sex
- Duration of complaints
- Associated symptoms like pain abdomen, vomiting, jaundice
- Significant medical illnesses like diabetes, hypertension. Tuberculosis, ischemic heart disease
- Precipitating factors like smoking, alcohol and NSAID abuse
- Past history of any surgeries

There were 40 male patients and 10 female patients with ratio of 4:1. Their age ranges from 14 to 65 among the male patients and 18 to 50 among the female. Common presentation is a combination of hematemesis and melena seen about 50% patients. 40% patients presented only with hematemesis and 10% with melena. Common associated symptom is pain abdomen in 30 patients(60%). Most of the patients have symptoms referable to GIT like dyspepsia which is common to the onset of bleeding episode. Previous history of bleed is noted in 12% patients. Associated systemic hypertension and diabetes is seen 2 patients and with diabetes alone in 3 patients, hypertension alone in 1 patient. Two patients suffered from IHD in the past.

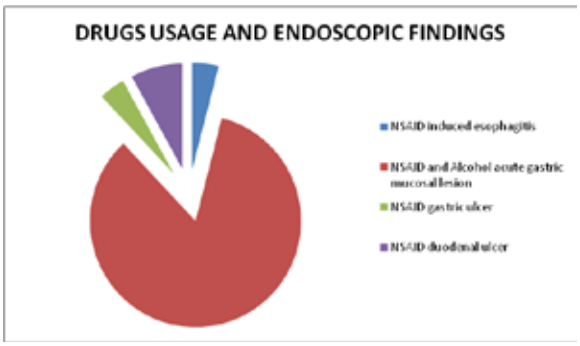
Sixty four percent of patients found to have pallor out of which 10% showed degree of anemia. Four patients found to have jaundice and on further evaluation 20% patients revealed features of chronic liver disease. Forty two percent of patients presented with epigastric tenderness, 28% had abdominal distension with engorged veins. Splenomegaly is seen in 18% and hepatomegaly in 12% of patients.

Ultrasonography revealed portal hypertension features in 16 patients. One patient showed porto-cavernous anastomosis. Upper GI endoscopy was performed in 48 patients to categorize them under specific etiologies.

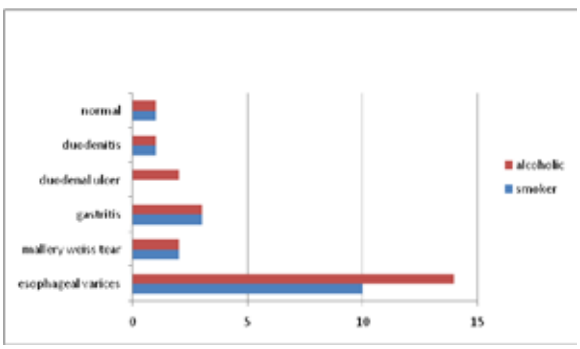
Etiology	No of patients	Percentage %
Esophagitis (NSAID)	1	2
Mallery Weiss tear	2	4
Esophageal varices A . alcohol b. Hbs Ag c. HCV	 15 2 1	 30 4 2
Gastritis NSAIDS Alcohol	 18 3	 36 6
Gatric ulcer	1	2
Duodenitis	1	2
Duodenal ulcer	2	4
H.Pylori+NSAIDS	2	4
others	2	4

Totally 25 patients have history of usage of drugs of which

1 patient showed esophagitis, 21 had acute gastric mucosal lesion, 1 had gastric ulcer and 2 with duodenal ulcer.



Out of 50 patients 20 were addicted to alcohol and 25 to smoking. Endoscopy reveled varices in 14 alcoholics, gastric mucosal lesions in 3 smokers and alcoholics.



A clinical diagnosis of cirrhosis is made in 18 patients. Endoscopy reveled 16 cases of esophageal varices, 8 patients have recurrent bleed.

ETIOLOGICAL PROFILE OF ESOPHAGEAL VARICES		
CLINICAL	NO. OF PATIENTS	PERCENTAGE %
Alcoholic cirrhosis	15	30
Hepatitis B	2	4
Hepatitis C	1	2

RESULTS

Upper GI bleeding is a medical emergency and major cause of morbidity and morality. Of the 50 casesincluded in this analysis , males constituted the larger proportion of cases in all age groups and were significantly younger than their female counter parts.

When considered by the site of bleeding the duodenum was the most common site followed by esophagus. Moreover, when bleeding site and etiology were considered together duodenal ulcers and esophageal varices were the most common pathology identified by endoscopy. A history of NSAID and other analgesic intake is made 25 patients. Clinical diagnosis of gastritis is made in 23 patients and endoscopy showed mucosal erosive disease in 21 patients. Common mucosal erosive leision is gastritis which accounts for 42%.

In our study a good correlation is made between increasing NSAID consumption by elderly and occurrence of bleeding from erosive lesions. A history of chronic alcoholism is noted in 20 patients and 15 of them showed esophageal varices (30%), and 2 of them showed Mallory weiss tear (4%) and 3 of them showed gastric erosion(6%).

In this study an important finding is that upper GI bleed in females is due to varices(mostly).in this a study of total of 14 cases of cirrhosis were diagnosed clinically and endoscopy revealed 16 cases of varices. Rebleeding rates are very high in peptic ulcer associated with NSAID intake.

The mortality is due to advanced age, underlying disease and risk factors. A vigorous and aggressive approach to identify the high risk group at endoscopy and careful monitoring of these patients and application of endoscopic interventions will probably go long way to reduce the mortality.

Most of these patients with gastric mucosal leisions are taking NSAIDs over the counter without consulting the physician. The commonest cause of UGI bleed is obsetved as drug abuse rather than peptic ulcer in our study. The study features are consistent with the ongoing trails as listed below.

Comparative study chart				
SOURCE OF BLEED	SUGAWA et al N= 183	MANIPAL 2002 N=100	OSMANIA MED COLLEGE 1997 N=80	PRESENT study N=50
Acute erosive diseases Esophagitis AGML Duodenitis	 4 36 2	 - 45.83 -	 8 20 -	 2 42 2
Ulcer disease Duodenal Gastric Stomal Pylorus	 17 21 - -	 8.3 15 - -	 26 6 2 6	 8 2 - -
Esophageal varices	12	19	36	34
Mallory weiss tear	30	3.3	12	4
Others	6	-	4	4
Normal	6	-	16	2
MORTALITY	32	15	10	12

CONCLUSIONS:

- The common cause of upper GI bleed in this study is acute gastric mucosal lesions due to NSAID drug intake.
- Besides causing mucosal erosions NSAIDs cause bleeding from preexisting peptic ulcers.
- Peptic ulcer accounted for 8% which is comparable to study carried out in Manipal hospital in 2002
- The bleeding esophageal varices are responsible for 34% which is the second commonest cause of acute upper GI bleed, comparable to study conducted in Osmania general hospital 1997 .
- Patients with past history of acute upper GI bleed are found to be having esophageal varices and peptic ulcer .
- A good correlation is made between clinical diagnosis and endoscopy in case of bleeding esophageal varices and mucosal erosive disease
- Incidence of Mallory weiss tear is 4% and is well comparable to other studies conducted in our country.
- Patients having hypovolemic shock on admission when underwent endoscopy revealed esophageal varices.

CONFLICTS OF INTREST: NIL
SOURCE OF FUNDING: NIL

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