ISSN Print: 2394-7500
ISSN Online: 2394-5869
Impact Factor: 5.2
IJAR 2018; 4(4): 497-500
www.allresearchjournal.com
Received: 05-04-2018
Accepted: 25-04-2018

Dr. K Penchila Prasad
Assistant Professor, Department of General Medicine, Ayaan Institute of Medical Sciences, Hyderabad, Moinabad, Telangana, India

Dr. Namburi Anil Kumar
Associate Professor, Department of General Medicine, Annaii Medical College and Hospital, Chennai, Tamil Nadu, India

Correspondence
Dr. Namburi Anil Kumar
Associate Professor, Department of General Medicine, Annaii Medical College and Hospital, Chennai, Tamil Nadu, India

An investigation into upper gastrointestinal hemorrhage in liver disease

Dr. K Penchila Prasad and Dr. Namburi Anil Kumar

Abstract
Background and Objective: In India, as in the rest of the world, more and more people are being told they have liver troubles or liver failure. This could happen to a patient at any time during the active part of the illness. The study looked at esophageal varices that come back after endoscopic band closure and non-variceal sources of upper gastrointestinal bleeding.
Methods: This study was done from March 2017 to February 2018 at the Department of General Medicine, Annaii Medical College and Hospital, Chennai, Tamil Nadu, 602105, India. The research study included 80 people who were treated at a tertiary care hospital. After getting the patient's permission, tests were done, including an endoscope to find out what caused the bleeding. A band closure through the endoscope was done.
Results: There were eight patients who met the standards for inclusion and were evaluated. Patients were mostly between the ages of 40 and 50. The patients were split into two groups: 19% were women and 81% were men. The patients' mean age was 53.06 years, and their range of ages was 12.892 years. The smallest age group could have 27 people, and the oldest age group could have 78 people. Sixty-nine percent of people with cirrhosis were heavy drinkers. Autoimmune diseases, HBV, and HCV with unknown causes made up the last 1.9% of cases.
Conclusion: This study shows that drinking alcohol is the main reason for cirrhosis; esophageal varices are the main cause of upper gastrointestinal bleeding; and portal hypertensive gastropathy is the main cause of upper gastrointestinal bleeding.

Keywords: Gastropathy, portal hypertension, esophageal varices, and recurrence of varices

1. Introduction
People with cirrhosis are at a high risk of having an acute upper gastric bleeding. Most studies that have been published have focused on varicose bleeds, but many people with cirrhosis also have bleeding from other places. A lot of doctors also think that people with liver cirrhosis are the only ones who have variceal bleeding because there hasn't been much written about this topic in Czech medical literature in the last twenty years [1-3].
For fifty to sixty-six percent of cirrhosis patients who have upper gastrointestinal bleeding, the reason is not a varices. Many of these patients have many lesions. When the difference in pressure between the liver and vesicles is more than 12 mmHg, esophageal varices form. An yearly risk of about 5% for esophageal varices is for them to happen. Even so, only about one-third of people with esophagus varices will actually bleed [4-6]. Cirrhosis has many different signs and effects, some of which can be life-threatening. Histopathologically, it is marked by broad fibrosis and the growth of nodules. In very rare cases, cirrhosis can be deadly. The development of fibrosis, which changes the structure of the liver, and the appearance of tumors that grow back are both harmful effects of cirrhosis. No matter where the disease comes from, this happens. This causes the liver's volume to go down, which affects its function and changes the way blood flows through it [5-7].
Some of the conditions that can cause gastroesophageal variceal bleeding are hepatocellular carcinoma, splenomegaly, ascites, liver encephalopathy, hepatorenal syndrome, spontaneous bacterial peritonitis, and portal hypertension [6-8]. One thing that makes the disease known as portal hypertension clear is high pressure in the portal vein system. When compared to other types of blood, this type is linked to a higher risk of illness and death. A variceal bleeding happens in 30% of people with portal hypertension and cirrhosis. Each event is linked to a 30% to 70% chance of death [7-9].

Patients with chronic liver disease who are bleeding a lot in the upper GI tract often can't remember their medical history because of hepatic encephalopathy. So, it is very important to get this information from friends or family. In people with chronic liver disease, coagulopathy and thrombocytopenia can happen because of a large spleen and poor hepatic synthetic function [8-10]. Even though vitamin K takes longer to work, fresh frozen plasma and injectable vitamin K administration should be used to treat the underlying coagulopathy. It is important to get information about when and how bad the bleeding started, if there was any previous upper gastrointestinal bleeding, any medications that were used, and the type and severity of the liver disease [9-11]. The study looked at esophageal varices that come back after endoscopic band closure and non-variceal sources of upper gastrointestinal bleeding.

Materials and Methods

The study looked at 80 patients who were admitted to tertiary care centers. After getting permission and informing the patient, an endoscopy and other tests were done to find the source of the bleeding. It was done through an endoscopic band closure. An in-depth study was done by the Department of General Medicine, Annaii Medical College and Hospital, Chennai, Tamil Nadu, 602105, India, from March 2017 to February 2018.

Inclusion criteria

1. The patients of both gender.
2. 18 and above.
3. Patients with upper GI bleed.
4. Patients with chronic liver disease.

Exclusion criteria

1. Patients <18 years were not included
2. Individuals without liver illness who have hematemesis

Results

After talking to the patient or bystander to find out if they had ever had chronic liver disease before, a full clinical check was done with written permission. The protocol sped up tests to confirm the diagnosis, which made sure that the patient got the best care possible. The KID criteria were used to group patients, and their absorptive ability, complete blood count, prothrombin time, albumin and serum proteins, liver function tests, HBsAg, and HCV antibodies were all checked.

Age of the patients

Patients' ages ranged from 52.25 years old on average to 13.15 years old on average. The youngest person was twenty-five and the oldest was seventy-two. Table 1 shows the number of patients broken down by age group.

Table 1: Number of cases based on age group

Sr. No.	Age group	Patients
1	20-30	10
2	30-40	16
3	40-50	25
4	50-60	10
5	60-70	12
6	>70	5
	Total	80

Gender of the patients

Patients were mostly men (68.18%), while women made up 31.25% of the patient group. Table 2 shows the breakdown of patients into groups based on their gender. Most of the cases were between the ages of 40 and 50. 31.25% of the cases were women and 68.78% were men [Table 2].

Table 2: Gender wise patient's distribution

Gender	Number	%
Females	25	31.25
Males	55	68.75
Total	80	100.0

Aetiology of the patients

70% of cases of cirrhosis were caused by being drunk, while 18% were caused by HBV, 4% by autoimmune diseases, and 6% by HCV. About 2 percent of the total came from sources that were made up. Alcohol abuse and viral hepatitis are the main causes of cirrhosis around the world. More than half of all cases of crime in India's cities are related to drinking too much. Hispatitis B is the most common type of infection, and hepatitis C is the second most common type. The causes of the cases are shown in Table 3.

Table 3: Aetiology of patients

Sr. No.	Aetiology	%
1	Alcohol	70.00
2	HBV	18.0
3	HCV	6.0
4	Autoimmune	4.0
5	Cryptogenic	2.0
		100

Child Classification

71.25% of the cases were put into Child class B, and 28.75% were put into Child class A. A level of statistical significance of P0.005 is reached for the result. Based on this, it looks like Child C has a higher chance of losing more than Child B. More than half of the times that the bleeding happened again were caused by Child C. Table 4 shows how many children there are.

Table 4: Number of child's

Child Classification	Patients	%
B	57	71.25
C	23	28.75
Total	80	100.0

Recurrence observation

Out of 80 cases, eight had a recurrence, which is 13.5% of the total. There was a standard deviation of 3.6 months between occurrences, with an average of six months.

Table 5: Number of Recurrence

Sr. No.	Reccurance	Patients	%
1	Yes	8	10.0
2	No	72	90.0
	Total	80	100.0

The amount of rebleeding is similar to what other researchers have found in their tests. Still, the most important difference between these studies is the presence of EBL. The main reasons for these studies were to treat acute variceal bleeding, to prevent secondary problems, and to

prevent primary problems. On the other hand, all of the people in our study had serious variceal bleeding for the first time when they came in for their appointments.

Discussion

Evaluations were performed on eight patients who were deemed eligible for inclusion because they met the criteria. Most of the patients were in the age range of forty to fifty years old. Only 19% of the patients were female, while 81% were male. The patients were divided into two groups. Although there was a standard deviation of 12.892 years in the ages of the patients, the average age of the patients was 53.06 years [9-11]. There may be 27 persons in the age group with the youngest age, and there could be 78 people in the age group with the oldest age. Sixty-nine percent of patients who had cirrhosis regularly consumed large amounts of alcohol. There was an inability to provide an explanation for 1.9% of the instances, which were caused by autoimmune disorders, HBV, or HCV [10-12].

Cirrhosis is mostly caused by overindulgence in alcoholic beverages and viral hepatitis in every region of the world. Drinking to excess is a contributing factor in more than half of all criminal incidents that occur in India's urban areas. According to estimates, hepatitis B is responsible for thirty to seventy percent of all cases. Hepatitis C is the number two most common cause of the disease [13-15]. The origins of portal hypertension in India have not been the subject of a significant amount of research. Ray *et al*. state that the most common cause of portal hypertension in people living in eastern India is liver disease, specifically hepatitis B. Consuming alcohol and being infected with hepatitis C are the two primary factors that lead to chronic liver disease, according to research conducted all over the world [14-16].

The majority of variceal hemorrhages, constituting 94% of all cases, were brought on by esophageal varices. The gateway is one of the explanations that are not related to valence. According to the findings of the study, there were 297 instances of upper digestive hemorrhage, the majority of which were on account of variceal bleeding [17-19], and 80 instances of upper digestive hemorrhage that were not brought on by variceal bleeding. In the individuals with cirrhosis who participated in our research, the most common cause of upper gastrointestinal bleeding that was not brought on by varices was duodenal ulcers [20-22].

In addition to putting an end to the bleeding, the risk of infection, premature rebleeding, and renal failure was simultaneously reduced. A stomach ulcer, portal hypertensive gastropathy, acute erosive gastritis, Mallory-Weiss syndrome, esophageal ulcers, antral vascular ectasia, duodenal polyps, and ulcerated gastric tumors were some of the other causes of the condition [23-25].

Conclusions

In terms of patients, guys made up the majority compared to women. Men made up 81% of the hospital's patients, while women only made up 19%. Most cases of cirrhosis are caused by drinking too much alcohol, having the hepatitis B or C virus, or having an autoimmune disease. For 1.9% of the cases, cryptogenic was the cause. Upper stomach hemorrhages were mostly caused by esophageal varices (94%). Six percent showed no difference. Cancer, Mallory-Weiss syndrome, and gastric ulcers were all in the same person. 1.9% of cases were caused by GAVE and esophagitis, 7.6% by peptic ulcers, 3.8% by Mallory Weiss and cancer, and 9.6% by portal hypertension gastropathy. Five hundred percent of the problems were linked to anemia.

Funding

None.

Conflict of Interest

None.

References

1. Jensen DM. Management of upper gastrointestinal bleeding in the patient with chronic liver disease. Med Clin North Am. 1996 Sep;80(5):1035-1068.
2. Svoboda P, Konecny M, Martinek A, Hrabovsky V, Prochazka V, Ehrmann J. Acute upper gastrointestinal bleeding in liver cirrhosis patients. Biomed Pap. 2012 Sep;156(3):266-270.
3. Hadayat R, Gul R, Khan AN, Said K, Gandapur A. Endoscopic findings of upper gastrointestinal bleeding in patients with liver cirrhosis. J Ayub Med Coll Abbottabad. 2015 Jun 20;27(2):391-394.
4. Zhao H, Zhao R, Hu J, Zhang X, Ma J, Shi Y, *et al*. Upper gastrointestinal hemorrhage in acute-on-chronic liver failure: prevalence, characteristics, and impact on prognosis. Expert Rev Gastroenterol Hepatol. 2019 Mar;13(3):263-269.
5. Lecleire S, Di Fiore F, Merle V, Hervé S, Duhamel C, Rudelli A, *et al*. Acute upper gastrointestinal bleeding in patients with liver cirrhosis and in noncirrhotic patients: epidemiology and predictive factors of mortality in a prospective multicenter population-based study. J Clin Gastroenterol. 2005 Apr;39(4):321-327.
6. Teres J, Bordas JM, Bru C, Diaz F, Bruguera M, Rodes J. Upper gastrointestinal bleeding in cirrhosis: clinical and endoscopic correlations. Gut. 1976 Jan;17(1):37-40.
7. Odelowo OO, Smoot DT, Kim K. Upper gastrointestinal bleeding in patients with liver cirrhosis. J Natl Med Assoc. 2002 Aug;94(8):712.
8. Qi X, Peng Y, Li H, Dai J, Guo X. Diabetes is associated with an increased risk of in-hospital mortality in liver cirrhosis with acute upper gastrointestinal bleeding. Eur J Gastroenterol Hepatol. 2015 Apr;27(4):476-477.
9. Li Y, Li H, Zhu Q, Tsochatzis E, Wang R, Guo X, Qi X. Effect of acute upper gastrointestinal bleeding manifestations at admission on the in-hospital outcomes of liver cirrhosis: hematemesis versus melena without hematemesis. Eur J Gastroenterol Hepatol. 2019 Nov;31(11):1334-1341.
10. Cerini F, Gonzalez JM, Torres F, Puente Á, Casas M, Vinaixa C, *et al*. Impact of anticoagulation on upper gastrointestinal bleeding in cirrhosis: A retrospective multicenter study. Hepatology. 2015 Aug;62(2):575-583.
11. Jo YW, Choi JY, Ha CY, Min HJ, Lee OJ. The clinical features and prognostic factors of nonvariceal upper gastrointestinal bleeding in patients with liver cirrhosis. Korean J Helicobacter Upper Gastrointest Res. 2013 Dec 10;13(4):235-242.
12. Zou D, Qi X, Zhu C, Ning Z, Hou F, Zhao J, *et al*. Albumin-bilirubin score for predicting the in-hospital mortality of acute upper gastrointestinal bleeding in

liver cirrhosis: A retrospective study. Turk J Gastroenterol. 2016 Mar;27(2):180-186.
13. Zaltman C, Souza HS, Castro ME, Sobral MD, Dias PC, Lemos Jr V. Upper gastrointestinal bleeding in a Brazilian hospital: A retrospective study of endoscopic records. Arq Gastroenterol. 2002;39:74-80.
14. Palmer K. Acute upper gastrointestinal haemorrhage. Br Med Bull. 2007 Sep;83(1):307-324.
15. Khodadoost J, Glass GB. Erosive gastritis and acute gastroduodenal ulcerations as sources of upper gastrointestinal bleeding in liver cirrhosis. Digestion. 1972 Dec;7(3-4):129-138.
16. Robertson M, Ng J, Abu Shawish W, Swaine A, Skardoon G, Huynh A, *et al*. Risk stratification in acute variceal bleeding: comparison of the AIMS65 score to established upper gastrointestinal bleeding and liver disease severity risk stratification scoring systems in predicting mortality and rebleeding. Dig Endosc. 2020 Jul;32(5):761-768.
17. Li J, Qi X, Deng H, Peng Y, Shao L, Ma J, Sun X, Li H, Guo X. Association of conventional haemostasis and coagulation tests with the risk of acute upper gastrointestinal bleeding in liver cirrhosis: A retrospective study. Gastroenterol Rep. 2016 Nov;4(4):315-319.
18. Pongprasobchai S, Nimitvilai S, Chasawat J, Manatsathit S. Upper gastrointestinal bleeding etiology score for predicting variceal and non-variceal bleeding. World J Gastroenterol. 2009 Mar 3;15(9):1099.
19. Seo YS, Kim YH, Ahn SH, Yu SK, Baik SK, Choi SK, *et al*. Clinical features and treatment outcomes of upper gastrointestinal bleeding in patients with cirrhosis. J Korean Med Sci. 2008 Aug;23(4):635-643.
20. Klebl F, Bregenzer N, Schöfer L, Tamme W, Langgartner J, Schölmerich J, *et al*. Risk factors for mortality in severe upper gastrointestinal bleeding. Int J Colorectal Dis. 2005 Jan;20:49-56.
21. Ou M, Tian Y, Zhuang G, Peng Y. QTc interval prolongation in liver cirrhosis with upper gastrointestinal bleeding. Medicina Clínica (Engl Ed). 2021 Jan 22;156(2):68-75.
22. Pinto HC, Abrantes A, Esteves AV, Almeida H, Correia JP. Long-term prognosis of patients with cirrhosis of the liver and upper gastrointestinal bleeding. Am J Gastroenterol, 1989 Oct, 84(10).
23. Wilkins T, Khan N, Nabh A, Schade RR. Diagnosis and management of upper gastrointestinal bleeding. Am Fam Physician. 2012 Mar;85(5):469-476.
24. Moledina SM, Komba E. Risk factors for mortality among patients admitted with upper gastrointestinal bleeding at a tertiary hospital: A prospective cohort study. BMC Gastroenterol. 2017 Dec;17:1-1.
25. Alharbi A, Almadi M, Barkun A, Martel M, REASON Investigators. Predictors of a variceal source among patients presenting with upper gastrointestinal bleeding. Can J Gastroenterol Hepatol. 2012;26(4):187-192.