



CLINICAL PROFILE IN PATIENTS OF HEPATIC ENCEPHALOPATHY IN A TERTIARY CARE HOSPITAL

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ABSTRACT

BACKGROUND- Hepatic encephalopathy is defined as a spectrum of neuropsychiatric abnormalities in patient with liver dysfunction, after exclusion of other brain diseases. It ranges from minimal hepatic encephalopathy to overt hepatic encephalopathy.

METHODS- The AIM of the study was to study the clinical profile in 100 patients with symptoms and signs of hepatic encephalopathy at Shri Ram Murti Smarak Hospital, Bareilly, Uttar Pradesh, from August 2016 to August 2018.

RESULTS- In this study, the commonest cause of Hepatic encephalopathy was found to be alcoholic liver disease (48%) followed by hepatitis B (30%) and hepatitis C (12%), 9% of the patients with cryptogenic cause were thought to be NASH/NAFLD.

CONCLUSION- Most common cause of hepatic encephalopathy was alcoholic liver disease with most common age being 51-60 years < most common presenting signs was icterus and upper GI bleed being the most common precipitating factor. Mortality was mostly seen in patients of Grade IV hepatic encephalopathy.

KEYWORDS :

INTRODUCTION-

Hepatic encephalopathy is a major clinical problem either due to liver failure or in patient with cirrhosis or portosystemic shunting. Hepatic encephalopathy is defined as a spectrum of neuropsychiatric abnormalities in patient with liver dysfunction, after exclusion of other brain diseases. Acute liver failure patients succumb to neurological death, with brain oedema and intracranial hypertension. The most common cause of cirrhosis worldwide are alcohol abuse and viral hepatitis (hepatitis B and C). In urban centres in India, alcohol abuse accounts for more than 50% of cases, Hepatitis B accounts for 30% to 70% of cases, with Hepatitis C following frequency. About 30% alcoholics also have markers of hepatitis virus infection; the relative contribution of viral infection and alcohol in such patients is variable. Further improvements of prognosis would be achieved by an early recognition and management of the precipitating factors.

RESULTS

Age Distribution of patients studied according to gender

Table 1

Age in years	Female	Male	Total
31-40	2(20%)	11(12.2%)	13(13%)
41-50	1(10%)	18(20%)	19(19%)
51-60	5(50%)	38(42.2%)	43(43%)
61-70	1(10%)	14(15.5%)	15(15%)
>70	1(10%)	9(10%)	10(10%)
Total	10(100%)	90(100%)	100(100%)

In total 100 patients with hepatic encephalopathy were studied the age incidence was more in the age group between 51-60 years (43%) followed by age group between 41-50 years (19%). There were no patient below the age limit below 20 years and maximum of 80 years. It was observed that 90% of the patients were males and 10% patients were female. There was male preponderance in all age groups.

Severity of Hepatic encephalopathy

Table 2

Severity of HE	Frequency
Grade 1	15
Grade 2	17
Grade 3	36
Grade 4	32

Majority of the patients with hepatic encephalopathy in the present study belongs to Grade III(36%) and Grade IV(32%) of West haven classification followed by Grade II(17%) and Grade I(15%).

Aetiological Profile

Table 3

Variable	Frequency	Percentage
Alcoholic hepatitis and cirrhosis	48	48%
Acute or chronic hepatitis B	30	30%
Hepatitis C	12	12%
Cryptogenic	9	9%
Alcohol + HBV	1	1%

In the present study, the most common cause of hepatic encephalopathy was observed in alcoholic patients (48%), whereas Hepatitis B was second most common cause. Hepatitis C cause hepatic encephalopathy in 12% of the patients.

Precipitating Factors

Table 4

Precipitating factors	Percentage
Upper GI bleed	34%%
Infection	32%
Electrolyte Imbalance	10%
constipation	9%
Sedatives	6%
Diuretics	12%
Excessive protein intake	10%
No precipitating factor	6%

Among the patients of hepatic encephalopathy most common cause was found to be upper GI bleed (34%) followed by infection (32%). Excessive diuretics use (12%) was observed as one of the leading factors for hepatic encephalopathy.

Presenting Signs

Table 5

Presenting signs	Percentage
Icterus	88%
Ascites	76%
Asterixis	66%
Pallor	64%
Pedal oedema	60%
Splenomegaly	42%
Fetor hepaticus	7%
clubbing	5%

Icterus (88%) was most common presenting signs in patients of hepatic encephalopathy with ascites (76%) being second and asterixis (66%) being third. Dupuytren's Contracture, gynaecomastia, testicular atrophy, parotid enlargement were seen uncommonly in the present study.

Mortality according to aetiology**Table 6**

Aetiology	Total patients	Expired	Percentage of Mortality
Alcohol	48	18	37.5%
HBV	30	13	43.3%
HCV	12	7	58.3%
Cryptogenic	9	2	22.2%
Alcohol + HBV	1	0	0%

Patients in the present study were categorised according to mortality with respect to etiology 18 among 48 patients of ALD group (37.5%) died. Out of 30 patients of hepatitis B (43.3%) 12 patients died and 7 among 12 (58.3%) patients of hepatitis C died.

West Haven Classification and Mortality**Table 7**

West Haven Classification	Number of cases	Mortality	Percentage
I	15	0	0%
II	17	2	11.70%
III	36	12	33.30%
IV	32	26	81.25%

In the present study highest mortality was observed in patients with Grade IV (81.25%) of the patients followed by grade III (33.30 %) hepatic encephalopathy patients

Prognosis and outcome**Table 8**

Outcome	Males	Females	Total
Survived	53	7	60
Expired	37	3	40

Mortality among 100 patients with hepatic encephalopathy 40% and 37 among 53 male patients got expired and 3 among 7 females for expired.

DISCUSSION-

Hepatic encephalopathy is a major complication of chronic liver disease and indicates poor prognosis. Precipitating factors usually seen in most patients and control of these factors is a key step in management.

In this study 100 patients of CLD presenting with hepatic encephalopathy were studied in tertiary care hospital and all factors which are important of causing hepatic encephalopathy were looked into and analysed.

In the present study the Mean±SD for age was 54±11.1 years, which is comparable to study by Onyekwere CA et al. where the mean age was 47 years and Bagny et al where it was also 48.9±13 years.

Male preponderance was seen in all age groups. It was observed that among 100 patients 90 were male and 10 were females, of which highest number was seen at the age group of 51-60 years (males 38 and females 5), which is comparable to study by Manabendra Nayak et al study where highest number of individuals were also seen at between the age group of 41-60 years.

In this study 48 % individuals presented with hepatic encephalopathy were suffering from alcoholic hepatitis and 30% were having acute or chronic hepatitis B whereas 12 % were suffering from chronic hepatitis C which are consistent with earlier study by Kumar et al. where percentage of alcoholic liver disease patients presenting with hepatic encephalopathy was 63% which are consistent with the study by Madha Y rao et al where she observed alcohol associated cirrhosis was 58.1%, and 68% Alcoholic liver disease was most common cause of CLD by Dhiman RK et al. Chronic hepatitis B and C incidence was 10% and 7% respectively, similar results were seen by NVA benhar et al in his study.

In this study 36 % of individuals presented with grade III encephalopathy with respect to 32% grade IV and 17% grade II and 15 % grade I, similar observations were noted by NVA benhar in there study where 36 patients suffered from grade IV encephalopathy and 31 from grade III and 11 and 22 individuals from grade II and I respectively similar results were observed by Kevin Charles raphael et al where 36% individuals presented with grade III encephalopathy.

In our study Upper GI bleed (34%) was observed as a leading cause for

hepatic encephalopathy and sepsis(32%), Diuretics(12%), Excess protein intake(10%), Electrolyte imbalance(10%), Constipation (9%) etc. Similar results were observed by MS Asadul Kabir et al in his study where infection (26%), Upper GI bleed 28%, Hypokalemia (6%), Constipation (4%). Mumtaz K et al study shows infections (20.5%) and constipation (18.3%) as main precipitating factors for hepatic encephalopathy.

In the present study it was observed that cause of mortality in patients with hepatic encephalopathy was highest in patient suffering from hepatitis B (58.3%) and Hepatitis C (43.3%) followed by alcoholic cirrhosis (37.5%), similar results were observed by NVA Benhar et al in his study conducted in Kakinada, Andhra Pradesh.

Patients with highest mortality was seen in patients with Grade IV hepatic encephalopathy (81.25%) followed by Grade III (33.3%), similar results were seen by NVA Benhar in his study where highest mortality was observed in Grade IV (94.4%) hepatic encephalopathy patients.

Overall mortality among 100 patients admitted with hepatic encephalopathy was 40% of which 37 were male and 3 were female, 60 % of the patients recovered, which is consistent with study by Kataile D et al where mortality was 66.7%.

Treatment was done by giving lactulose solution, antibiotics like rifaximin, lactulose enema and symptomatic management was done.

CONCLUSION:

Out of 100 patients, alcoholic cirrhosis was the leading cause of hepatic encephalopathy followed by hepatitis B and hepatitis C, with highest frequency was observed on Grade III hepatic encephalopathy.

Most common age group was 51-60 years with Upper GI bleed was the leading precipitating factors in patients with hepatic encephalopathy followed by infections and diuretics use.

Highest mortality was observed in chronic Hepatitis C and hepatitis B patients suffering from hepatic encephalopathy with Grade IV hepatic encephalopathy having highest mortality rate.

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