

Epidemiological & Clinical Manifestation of Cirrhosis of Liver in a Tertiary Hospital

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Abstract

Introduction: Cirrhosis of liver is common Medical problem in our country and causing for significant morbidity & mortality. This study was aimed to findout actiology and clinical presentation of cirrhosis in this southern part of Bangladesh. **Materials & Methods:** An observational study was conducted in Khulna Medical College Hospital from January 2016 to June 2016. That included adult (>15yrs) cirrhosis patient in medicine ward on the basis of history & clinical examination. **Results:** Common age is (37-48)yrs, 80% were male patient. Male Female ratio 4:1. Anorexia & dyspepsia were the most common symptom. 78% presented with ascites 34% presented with variceal bleeding. Aetiology are Hepatitis B (52%), Hepatitis C (24%) & idiopathic 16%. **Conclusion:** Screening for chronic liver disease should include history and physical examination, serum transaminase measurement, upper abdominal ultrasonography, and in some case, fibroscan. Management of patient with cirrhosis should be prevention & early intervention to stabilize disease progression and to avoid or delay clinical decompensation and the need for liver transplantation.

Keywords: Chronic liver disease, Cirrhosis of liver.

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Introduction

Cirrhosis is the 14th most common cause of death worldwide¹. Cirrhosis represents a late stage of progressive hepatic fibrosis characterized by destruction of hepatic architecture and the formation of regenerative nodules. Previously it was considered to be irreversible. Common causes are chronic Hepatitis C, Hepatitis B. Alcohol, Wilsons, disease, NASH, PBC, PSC³. Over 350 people worldwide are infected with hepatitis B virus globally. Bangladesh belongs to the intermediate prevalence region for HBV infection.

Here the life time risk of acquiring HBV is between 20-60%. One study shows that HBV is responsible for 31.25% case of acute hepatitis, 76.3% cases of chronic hepatitis, 61.15% cases of cirrhosis of liver, 33.5% cases of hepatocellular carcinoma in Bangladesh². Based on two hospital observations, the incidence of cirrhosis is found to be 2.6 percent of the total hospital admission². This figure will probably increase when calculation includes the rural hospitals. The patients who come across in the hospital wards are mostly in advanced stage with overt clinical manifestations and/or complications. Some cases, however, may present with vague digestive complaints with minimum physical signs. Some patient present with ascites and hematemesis melaena. In Bangladesh, differences in some aspects of clinical manifestations of cirrhosis of liver have been found as compared to the reports of western world. This appears to be consistent with the findings that the vast majority of cases in our country. In contrast, alcoholic cirrhosis constitute a greater proportion of cases in the reports of western authors. are non-alcoholic and are usually post-viral infection sequelae⁵. In contrast, alcoholic cirrhosis constitute a greater proportion of cases in the reports of western authors⁵.

Materials and Methods

A total 50 diagnosed cirrhosis patient admitted in different Medicine Units of Khulna Medical College Hospital were included in this observational study from January to June-2016. All of them were above the age of 15 years.

Inclusion criteria are male & female patient aged 15 years and above and history, clinical feature & investigation suggestive of cirrhosis.

Exclusion criteria are age under 15 years, negative Clinical feature & Investigation of CLD and patient of CLD with HCC.

Results

According to the questionnaire history of all fifty cases were taken the clinical examination was carriedout meticulously. The commonest

(34%) was the age group (37-48) years. The next common being in the age group (49-60) years (table-I).

Table I: Age distribution of the patient with liver cirrhosis (n=50).

Age in years	Number	Percentage
15-24 yr	06	12.0
25-36 yr	08	16.0
37-48 yr	17	34.0
49-60yr	15	30.0
>60 yr	04	08.0

Shows that (80%) were male and (20%) were female, with male-female ratio 4:1 (table-II).

Table-II: Sex distribution of study patients.

Sex	Number	Percentage
Male	40	80.0
Female	10	20.0
Total	50	100

18 (36%) cases were day labor. All the 10 (20%) female patient were house wife. 7 (14%) cases were serviceman and another 7 were businessman (table-III).

Table-III: Occupational incidence of study patients.

Occupation	Number	Percentage
House wife	09	20.0
Service	07	14.0
Student	03	06.0
Govt. Job	02	04.0
Day labor	18	36.0
Business	07	14.0
Farmer	03	06.0

Anorexia and dyspepsia (90%), fatigue & Wt. loss were the most common presenting symptom. A number (78%) presented with swelling of abdomen (34%) presented with hemorrhage (table-IV).

Table-IV: Presenting complaints of study patients (n=50).

Presenting complaints	Number	Percentage
Fatigue and weight loss	33	66.0
Anorexia and dyspepsia	45	90.0
Jaundice	20	40.0
Haemorrhage		
(Gums,	2	04.0
Alimentary tract,	15	30.0
Absent)	33	66.0
Swelling of abdomen	39	78.0
Loss of libido	26	52.0

Only (40%) patient gives the past history jaundice. History of transfusion found in 24% of patient.

Table shows that personal history of intravenous drug misuse were (6%) & needle stick injury were (4%).

Viral hepatitis was found to be the most common cause Hepatitis B was found in (52%) patient & Hepatitis C was found in (16%) patient. No cause was found in (24%) (table-V).

Table-V: Possible aetiological factor (n=50)

Aetiology	Male	Female	p value
HBsAg Positive	24	02	0.04
Anti HCV Positive	06	02	0.65
Cryptogenic	08	04	0.22
Alcohol	02	00	1.0
Budd chiari syndrome	01	00	1.0
Wilson's disease	00	01	1.0

The most significant physical sign were ascities, present in 78% of cases. Palpable spleen (Spleno-megaly) in (60%) cases. Spider angioma, testicular atrophy, gynecomastia were present in 44, 44, 28 percent cases respectively (table-VI).

Table-VI: Physical examination finding in cirrhosis

Physical findings	Number	Percentage
Jaundice	24	48
Spider angioma	22	44
Palmer Erythema	02	04
Clubbing	06	12
Testicular atrophy	22	44
Gynaecomastia	14	28
Pigmentation	19	38
Ascities	39	78
Spleno-megaly	30	60

Discussion

The incidence of chronic liver disease has increased throughout the world. Chronic hepatitis B virus infection is regarded as the most important cause of cirrhosis of liver in Bangladesh². Hepatitis C infection seems to be common in many countries. The diagnosis parameters were clinical, biochemical, sonographic & endoscopic examination. Only two patient needs additional investigation like hepatic scintiscan (for Buddchiari syndrome) & test for Wilson's disease. Although ideally biopsy is needed for diagnosis but logistic and financial difficulties & different contraindication of biopsy precluded histopathological study. The age & sex distribution in the present study is almost similar to previous report⁴. Male to female ratio = 4:1 perhaps reflect social prejudice & avoidance of hospital admission by female. Most of the patients were between 37-48 years (34%). The occupational incidence shows that people of almost all occupation can be come an unfortunate victim of chronic live disease. In the present series, some author have shown that history of injection, blood transfusion are positively correleated with HBsAg positively among general population.No significant past history of Jaundice may be due to anicteric hepatitis^{5,6}.

High incidence of HBsAg positivity in cirrhosis patients ranging from 25 to 60% have been reported from Africa. All these countries have high general HBsAg seroprevalence⁷. In the developed countries chronic alcoholism is by far the most important cause of cirrhosis⁸. In Bangladesh prevailing social religious & cultural factors dictate that alcoholism is not an important aetiological factor of CLD. The reported incidence of alcoholism in CLD patients in Bangladesh ranges from 3.57 to 7.1%. The commonest symptoms in this series were anorexia, dyspepsia (90%), fatigue & weight loss (66%) and swelling of the abdomen (78%), 40% present with jaundice. Haematemesis (4%) and/or melaena (30%). The reported incidence of clinical jaundice in cirrhosis patients in Bangladesh ranges from 20.1 to 68.7 percent⁹. These variable incidences indicate the variable percentage of decompensated patients belonging to that particular study. Other important clinical features include clubbing (12%), palmar erythema (4%) and spider naevi (44%). Gynaecomastia (28%), testicular atrophy (44%). The incidence of these classical peripheral stigmata of cirrhosis are consistent with the findings of other^{10,11}.

Ascitic fluid study revealed mostly transudative fluid (mean protein 22.8 gm/L)¹². Ultrasonography is an important noninvasive investigation in the evaluation of cirrhosis. Ultrasonography is currently the first choice to screen for development of hepatocellular carcinoma in patients with cirrhosis^{13,14}. In the present study ultrasonography revealed ascites with hepatomegaly or splenomegaly (30%) or both hepatosplenomegaly (10%). Endoscopy was done in 18 patients. Oesophageal varices were detected in all patients. Screening for Wilson's disease was done in one patient & was found to have biochemical parameters of Wilson's disease (low serum ceruloplasmin and serum copper value with markedly increased urinary copper excretion) as well as classic Kayser-Fleischer ring and features of both CLD and basal ganglia involvement. The patient improved gradually with the commencement of penicillamine therapy. Wilson's disease is an uncommon but important cause of CLD where effective treatment is available. Young patients with features of CLD should always be screened for Wilson's disease^{15,16}.

Conclusion

Screening for chronic liver disease should include history and physical examination, serum transaminase measurement, upper abdominal ultrasonography, and, in some cases, Fibroscan. In management of patients with cirrhosis should be prevention & early intervention to stabilize disease progression and to avoid or delay clinical decompensation and the need for liver transplantation. A multi-centre nationwide study could address the study objective in a meaningful way.

Conflict of Interest: None.

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