

Pattern of Liver Diseases in Adult Patients Admitted To Sher-E-Bangla Medical College Hospital, Barishal, Bangladesh in the Year 2007

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To determine the relative frequencies of liver diseases in patients admitted to Sher-E-Bangla Medical College Hospital, Barishal, Bangladesh, we recorded 12024 adults admitted patients in the medicine department during the period from 1st January to 31st December in the year 2007 and were analyzed retrospectively. Among those patients 8010 were male and 4014 were female. Total numbers of liver disease patients were 1104 (9.2%). Of these 396 patients suffered from chronic liver disease. The remaining 708 patients were admitted for various other liver diseases. Among these 708 patients the commonest diseases was acute viral hepatitis 324 (29.3%), followed by liver abscess 144 (13.0%), hepatocellular carcinoma 96 (8.7%), biliary ascariasis 96 (8.7%), secondary in liver 24 (2.2%), hepatic encephalopathy 24 (2.2%), sub-acute hepatic failure 12 (1.1%) and haemangioma 12 (1.08%). There was no gender-related difference in haemangioma, biliary ascariasis and sub-acute hepatic failure. Males were significantly more affected than females with viral hepatitis ($p < 0.0001$), cirrhosis of the liver ($p < 0.0001$), hepatocellular carcinoma ($p < 0.0005$) and liver abscess. As a large proportion of our patients had preventable diseases, it is expected that immunization and other public health measures will reduce the frequency of these diseases in the future.

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Key words: Chronic liver disease, acute viral hepatitis, liver abscess.

Introduction

Prevalence of different kinds of liver disease like, hepatitis, liver cirrhosis, liver cancer and liver abscess are very common. It constitutes a significant number of patients in various countries around the world and presents serious health related as well as economic problems. The pattern of liver disease may vary in different geographical locations due to differences in

environmental factors, eating habits, socioeconomic factors and other reasons. The purpose of this study was to study the pattern of liver disease in patients admitted to the medicine unit of Sher-E-Bangla Medical College, Barishal which is a tertiary care centre that will help us to prepare future strategies to reduce such disease in the community.

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Methods

This study was carried out in the department of medicine, Sher-E-Bangla Medical College Hospital, Barishal, from 1st January, 2007 to 31st December 2007. Total number of patients admitted in medicine ward was 12024, among this liver disease patients were 1104 which was 918% of total patients admitted. The diagnostic facilities include history, clinical examination, biochemical study, immunology, microbiology, endoscopy, contrast radiology and ultrasonography. We reviewed the records of all adult patients admitted with liver disease to the medical wards of our hospital during the period. We also obtained the total number of admissions to these wards during the same period. Data obtained from the records of patients with liver diseases were analyzed according to nationality, gender, the frequency and the distribution of the diagnostic categories.

Results

The total number of adult patients admitted to the medical wards during the period reviewed was 12024. There were 8010 males and 4004 female patients. Out of these 12024 patients, 1104 patients were suffered from liver disease. In this study we retrospectively investigated the pattern of liver disease among those 1104 patients. Total number of CLD patients were 396 (35.9%), acute viral hepatitis 324 (29.3%) liver abscess 144 (13.0%), HCC 96 (8.7%), billiary ascariasis 96 (8.69%), metastatic cancers 24 (2.2%), haemangioma and sub acute hepatic failure 12 (1.1%) each (table I).

Chronic liver disease, acute viral hepatitis, HCC, liver abscess and billiary ascariasis were the most frequent causes of liver disease.

Chronic liver disease was found in 35.86% of patients with age range of 30 to 60 years. Male-female ratio was 3:1 HBsAg was found

positive in 30% of patients and AntiHCV was present in 5% patients.

Acute viral hepatitis was present in 29.3% patients. Age range was 20 to 60 years, 60% were male and 40% were female. HBsAg was present in 20% cases, Anti HCV present in 5% cases and AntiHEV in 30% cases.

Liver abscess was presents in 13.0% cases with age range of 20 to 50 years. There was male predominance. Male : female was 5:1.

HCC was present in 8.69% cases, 80% cases were males, 50% cases were HBsAg positive and 20% Anti HCV positive, 30% cases presented as a sequele of CLD.

Metastatic liver disease was present in 2.2% cases. In 60% cases primary was unknown, males were significantly more affected than female.

Table I: Table showing the different type of liver diseases.

| Type of disease | Total number | Percentage |
|---------------------------|--------------|------------|
| CLD | 396 | 35.9% |
| AVH | 324 | 24.3% |
| Liver abscess | 144 | 13.0% |
| HCC | 96 | 8.7% |
| Billiary ascariasis | 96 | 8.7% |
| Secondary | 24 | 2.2% |
| Hepatic encephalopathy | 24 | 2.2 |
| Sub Acute hepatic failure | 12 | 1.1% |

Discussion

Our study clearly demonstrated that CLD, AVH, liver abscess, HCC and billiary ascariasis constitute the major causes of liver disease in our population. This was comparable with reports from other studies, despite the fact that the HBsAg carrier rate is

higher 7.3-7.5% compared to HCV.^{1,2,3,4} Liver cirrhosis and HCC was much higher. This clearly demonstrate the role of HBV in the pathogenesis of CLD which was the leading cause of cirrhosis and HCC in this series. Similar results were reported from Abha by Jamjoom, et al.⁵ HCV was the second leading cause of chronic liver disease and HCC in our patients. This emphasizes the importance of preventive measures against HBV and HCV in the form of public education, vaccination at an early age, careful screening of blood donors and the use of disposable needles.

Hepatocellular carcinoma (HCC) ranks as the fourth most common cancer in the world and is responsible for nearly a quarter of a million deaths annually.^{6,7} The age-specific incidence is estimated to be around 3 and 80 per 100 000 people in North America and China, respectively.⁸ A recent study shows that the incidence of HCC is rising and that age-specific incidence has shifted towards younger people in the United States over the past two decades.⁹ The survival of patients is extremely poor by the time they present with symptoms related to the tumor.¹⁰

Acute viral hepatitis alone accounted for 29.4% of this study. Infection with hepatitis B & C viruses are common in Bangladesh. With this background, it is not surprising that cirrhosis of the liver, hepatocellular carcinoma are common in the population reviewed. Hepatitis E virus is also an important factor for causation of AVH. This hepatitis can be prevented by maintaining good personal hygiene, water supply and public health awareness and successful vaccination of HBV infection. Liver abscess constitute 13.0% of liver disease patients. This can be prevented by maintaining good hygiene.

HCC were 8.7% and most important cause was HBV infection and HCV infection which

can be prevented by early HBV vaccination, blood donor screening and use of disposable syringe. Metastatic carcinoma of liver was found in 24 patients. Primary was in the pancreas in two, in the stomach in four patients and the colon in four cases. In fourteen cases, the origin of the primary was unknown.

Conclusion

Bangladesh is one of the densely populated countries of the world, with poor socio-economic and hygienic conditions. The prevalence of different kinds of liver disease like, hepatitis, liver cirrhosis and liver cancer and related diseases are very common. A significant proportion of the disease for which the patients in our study were hospitalized are preventable. It is noted that the Bangladesh Government is concerned with both the preventive and curative arms of medical care. Immunization against hepatitis B virus is currently included in the routine childhood immunization program. This will eventually reduced the prevalence of viral hepatitis and its sequelae. Also, with the improvement in public health facilities, health education and personal hygiene, the infective diseases encountered in our series will be reduced.

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