

“Pattern of Chronic Hepatitis among Patients in a District Level Hospital, Nilphamari, Bangladesh”

Dr. ASM Rezaul Karim^{1*}, Dr. Md. Robiul Awal², Dr. Md. Enamul Haque³, Dr. Dilip Kumar Roy⁴, Dr. Md. Rezaul Alam⁵

¹Senior Consultant of Medicine, Adhunik Sadar Hospital, Nilphamari, Bangladesh

²Junior Consultant of Medicine, Adhunik Sadar Hospital, Natore, Bangladesh

³Senior Consultant of Paediatrics, Adhunik Sadar Hospital, Nilphamari, Bangladesh

⁴Junior Consultant of Paediatrics, Adhunik Sadar Hospital, Nilphamari, Bangladesh

⁵Junior Consultant of Cardiology, Adhunik Sadar Hospital, Nilphamari, Bangladesh

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*Corresponding author: Dr.ASM Rezaul Karim

Abstract

Original Research Article

Introduction: Hepatitis is one of the common diseases in Bangladesh. As a country of the Asia Pacific region, Bangladesh is considered to be a high-risk area for developing hepatitis-A as well as hepatitis-B. Information regarding chronic hepatitis is very potential to the treatment professionals. **Aim of the study:** The aim of the study was to assess the pattern of hepatitis in the patients admitted at Adhunik Sadar Hospital, Nilphamari, Bangladesh. **Method:** It was an observational study which was conducted at Adhunik Sadar Hospital, Nilphamari, Bangladesh during the period from January 2018 to December 2018. The total number of study people was 280. The written consents were taken from all the participants after explaining to them. **Results:** Among total 280 patients, 160 were male whereas 120 were female. In our study, we found that, hepatitis A; B and C are most common in this locality. Most of the patients develop classical sign and symptoms of hepatitis; most commonly jaundice and weight loss. Majority 25.71% of cases were aged between 20-30 years and 31-40 years, (22.86%) were in 41-50 age while 12.14% were in 51-60 years, 6.43% were in 61-70 and 7.14% were <20 years of age respectively. The weight of the majority participants (25.71%) were 72 Kg and the below weight were (6.43%) among the participant's. The pulse rate 83.57% was normal and 16.43% were abnormal. In concerned area 40.71% patients had Hepatitis A, 28.57% Hepatitis B, 16.43% Hepatitis C And 8.92% had Hepatitis E, 3.57% had Alcoholic Hepatitis and 1.78%.had drug induced respectively. **Conclusion:** The prevalence of different types of hepatitis in Bangladesh is high. Bangladesh is at the high-risk region for developing hepatitis A and B. Routine immunizations and community education regarding the diseases are highly warranted here. Government of Bangladesh should take proper initiatives to aware the people about hepatitis.

Keywords: Pattern, Hepatitis, Jaundice, Bilirubin. Ischemic.

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INTRODUCTION

In Bangladesh Hepatitis is one of the common diseases. As a country of the Asia Pacific region Bangladesh is considered to be a high-risk area for developing hepatitis-A as well as hepatitis-B. Hepatitis is seen sporadically round the year in Bangladesh. In the general population, HEV carries a low mortality of 0.5-4%. However, this figure approaches >75% in developing countries, such as Bangladesh, in the second/third trimester of pregnancy, and in patients with fulminant hepatic failure [1]. Hepatitis E virus was called a leading cause of acute-on-chronic liver disease in a retrospective study conducted by Mahtab *et al.* [1]. In Bangladesh, information about prevalence of HBV

infection is scarce, and there is no available data on HDV infection [2]. Hepatitis is an inflammation of the liver, most commonly caused by a viral infection. The five main hepatitis viruses, referred to as types A, B, C, D and E. These five types are of greatest concern because of the burden of illness and death they cause and the potential for outbreaks and epidemic spread. In particular, types B and C lead to chronic disease in hundreds of millions of people and together are the most common cause of liver cirrhosis and cancer [3]. It sets out global statistics on viral hepatitis B and C, the rate of new infections, the prevalence of chronic infections and mortality caused by these two high-burden hepatitis viruses, as well as coverage levels of key interventions, as at the end of 2015. These statistics

revealed that viral hepatitis is a major public health challenge that requires an urgent response. In 2015, 1.34 million death caused by this disease which is comparable to annual deaths caused by tuberculosis and higher than those caused by HIV. Mortality caused by viral hepatitis is on the rise while mortality from HIV, tuberculosis, and malaria is now declining. The report provides guidance on how to reverse this alarming trend, describing a number of high-impact involvements and opportunities for their scaled-up execution. Viral hepatitis is the leading cause of liver cancer and the most common reason for liver transplantation [4]. Little data are available on hepatitis prevalence in Bangladesh [5]. But according to WHO, Bangladesh is one of the countries or areas with moderate to high risk of hepatitis A and hepatitis B [3]. Bangladesh is considered to be a country where hepatitis A infection is hyperendemic with 100% of children ≤ 6 years of age exposed and immune to HAV [6]. As a South East Asian country Bangladesh is considered endemic for hepatitis B virus (HBV) infection [7]. The global rejoinder to viral hepatitis comes in a new phase in 2015, when the United Nations General Assembly assumed the 2030 Agenda for Maintainable Development, which named on the global community to combat hepatitis. At the same year, the World Health Assembly adopted WHO's first "Global Health Department Approach on Viral Hepatitis", with elimination as its overarching vision. A baseline for the drive towards elimination is provided by The Global hepatitis report 2017.

OBJECTIVES

General objective

- To assess the pattern hepatitis in the patients admitted at Adhunik Sadar Hospital, Nilphamari, a district level hospital of Bangladesh

Specific objectives

- To observe the socio-economic and dynamic Status patents with hepatitis.
- To compare the Pattern of Chronic Hepatitis among Patients.

MATERIAL AND METHODS

A total 280 patients came to the Medicine Department of, Adhunik Sadar Hospital, Nilphamari, Bangladesh. The study period extends from January 1, 2018 to December 31, 2018. Physicians at the said departments were also consulted. Any patient who developed some sign and symptoms of hepatitis were included in this study regardless of age and sex, type of hepatitis the patient suffering from, underlying cause(s), sign and symptoms, types of treatment, drug treatment.

Inclusion criteria

- Age- 21 to 65 years
- Sex Both male and female

Exclusion criteria for both case and control-

- Patients and healthy comparison persons with the following characteristics were excluded from the study by history and required investigation.
- Patient's sufferings from Jaundice, Weight loss, Loss of appetite, Diarrhea etc.

RESULTS

A total number of 280 patients were selected for this study. (Table I) shows that the General characteristics of the participants. Majority (25.71%) of cases were aged between 20-30 years and 31-40 years, (22.86%) were in 41-50 age while (12.14%) were in 51-60 years and (6.43%) were in 61-70 and (7.14%) were <20 years of age. Most of the studied patients (65%) live in rural area and (35%) patients live in the urban area. In this study 80% studied people are married and 20% are unmarried. Most of the (33.57%) people are illiterate and 30% were minimum 16 years of schooling. The occupation status (64.29%) most of the people were employed. In (Table II) shows that the Biophysical characteristics of the patients. The majority weight (25.71%) were 72 Kg and the below weight were (6.43%). The pulse rate (83.57%) was normal and (16.43%) were abnormal. The temperature of patients 87.14% was normal and 12.86% were abnormal. Blood pressure 17.14% were low, 28.57% were high and 54.29% were normal. (Table III) shows the hepatitis types, causes and sign of the patients. In concerned area 40.71% patients had this type of Hepatitis A, Hepatitis B (28.57%), Hepatitis C (16.43%), Hepatitis E (8.92%), Alcoholic Hepatitis were 3.57% and Drug induced Hepatitis were 1.78%. In this study the majority of the causes were 95% had Viral Hepatitis and 1.41% had Drug induced Hepatitis and 3.57% had also Alcohol induced Hepatitis. The result shows that 28.57% were jaundice and 28.57% had weight loss sign and symptoms.

Table-I: General characteristics of the Participants (N=280)

Characteristics	n	%
Male	160	57.14
Female	120	42.86
Age (in years)		
Less than 20	20	7.14
20-30	72	25.71
31-40	72	25.71
41-50	64	22.86
51-60	34	12.14
61-70	18	6.43
Living area		
Rural	182	65
Urban	98	35
Marital status		
Married	224	80
Unmarried	56	20
Educational status		
Illiterate	94	33.57
Can read and write a letter	60	21.43
Minimum 16 years of schooling	84	30
Graduate and higher	42	15
Occupational status		
Unemployed	34	12.14
Student	46	16.43
House wife	20	7.14
Employed	180	64.29

Table-II: Biophysical Characteristics of the Participants (N=280)

Characteristics	n	%
Weight (Kg)		
40-45	72	25.71
46-50	58	20.71
51-55	68	24.29
56-60	30	10.71
61-65	34	12.14
Others	18	6.43
Pulse rate		
Normal	234	83.57
Abnormal	46	16.43
Body temperature		
Normal	244	87.14
Abnormal	36	12.86
Blood pressure		
Low	48	17.14
High	80	28.57
Normal	152	54.29

Table-III: Hepatitis Types, Causes, and Sign and Symptoms in Participants (N=280)

Concerned area	n	%
Type		
Hepatitis A	114	40.71
Hepatitis B	80	28.57
Hepatitis C	46	16.43
Hepatitis E	25	8.92
Alcoholic hepatitis	10	3.57
Drug induced hepatitis	5	1.78
Causes		
Viral hepatitis	266	95
Drug induced	5	1.78
Alcohol induced	10	3.57
Sign and symptoms		
Jaundice	80	28.57
Weight loss	80	28.57
Loss of appetite	30	10.71
Diarrhea	14	5
Itchy skin	16	5.71
Nausea and vomiting	30	10.71
Abdominal pain and discomfort	10	3.57
Yellow discoloration of urine and stool	20	7.14

DISCUSSION

We conducted the study to assess the pattern of chronic Hepatitis among patients in a district level hospital, Nilphamari, Bangladesh in the of Department medicine in respective hospital. Two hundred and eighty (280) patients were selected among them 160 were male and 120 were female. Most of the hepatitis cases contributed a viral cause (95%). Drug induced hepatitis and infection related hepatitis were also common. Drug-induced immune-mediated liver injury is an adverse immune response against proteins within the liver that can lead to a syndrome of autoimmune hepatitis [8-10]. Many different drugs can cause drug- induced hepatitis. Painkillers and fever reducers that contain acetaminophen are a common cause of liver inflammation. Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and naproxen, may also cause drug-induced hepatitis [11]. Several reports indicate that blood borne routes are one of the major moods of transmission of hepatitis B [12, 13], hepatitis C [12, 14], and hepatitis E virus [15-18]. The risk of hepatitis B virus infection through transfusion has been reduced subsequently introduction of hepatitis B surface antigen (HBsAg) screening in blood donors [19]. The sign and symptoms developed by the hepatitis affected patients were classical sign and symptoms. Jaundice (28.57%) and weight loss (28.57%) were most common with loss of appetite (10.71%). It was an interesting observation that 5.71 % of patients reported to have itchy skin. Itchiness is developed in

particularly hepatitis A patients as a result of cholestasis [20]. Viral hepatitis remains the worldwide hepatological challenge [21]. Effective hepatitis A vaccination programs have helped to control the disease with proven social and economic benefits [22]. Vaccines against hepatitis A have been available since 2001 in the Bangladeshi private market, but are not widely used currently and are not a part of the universal expanded programme of immunization in Bangladesh [6] 350 million people worldwide are living with chronic hepatitis B virus (HBV) infection, and an estimated 620,000 die annually from complications of HBV-related liver disease [19]. Among the affected 350 million 75% reside in the Asia Pacific region [23].

Limitations of the study

Although the result of this study supports the hypothesis, there are some facts to be considered which might affect the result. The following limitation encountered by investigator is to be kept in mind while reviewing the report.

- Because limitation of time and financial binding, the study was conducted with small sample size. So, it may not be adequate to represent the total population.
- This was a single hospital based study, so the result of the present study may not be representative.
- The sample was taken purposively, so there may be a chance of bias which can influence the result.
- Since the time period was very limited and there were other constraints the sample size could not be taken as desired.

CONCLUSION AND RECOMMENDATIONS

The prevalence of different forms of hepatitis in Bangladesh is high. Bangladesh is at the high risk region of hepatitis A and B. Routine immunizations, community education regarding the diseases are highly warranted here. Government should take necessary steps regarding this issue. As many of the forms of hepatitis are water borne, safe drinking water and proper sanitation system should be established throughout the country. Safe blood transfusion need to be ensured.

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