Original Article

The Incidence of Hepatitis C in Patients of Chronic Liver Disease at Bahawal Victoria Hospital, Bahawalpur

Hep. C in Chronic Liver Disease

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ABSTRACT

Objectives: The purpose of this scrutiny was to document the frequency of seropositive patients of hepatitis C from all fields of life & from each part of Bahawalpur with chronic liver disease.
Study Design: Cross sectional study
Place and Duration of Study: This study was conducted at the Bahawal Victoria Hospital, Bahawalpur from January to June 2016.
Materials and Methods: Sample size of 100 was taken who belonged to all fields of life in Bahawalpur Sixty (60) were males and forty (40) were females. Serum sample collected from department of Medicine and Surgery from both indoor and outdoor departments.
Results: There were 23 (23%) pts +Ve for hep C virus antibodies, including 15 (25%) men & 8(20%) females. Male patients with +Ve for hep C virus antibodies were 15 (25%) while male pts with -Ve for hep C antibody were 45 (75%). Female pts with active hep C virus antibodies were 8(20%), and female patients with -Ve hep C virus antibodies were 32 (80%).
Conclusions: The rate of hep C virus antibodies is rather low down in pts with CLD approaching hospital. There is an alarming situation in District Lodhran for hepatitis patients.
Key Words: Hepatitis C; Chronic liverdisease; Hepatitis C; Frequency

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INTRODUCTION

Hepatitis is inflammation of the liver, the most common being caused by a viral infection. In these viruses, hepatitis B virus (HBV) and hepatitis C virus (HCV) infection accounts for a large part of the world's liver disease. These viruses are responsible for liver damage from mild disease to cirrhosis and hepatocellular carcinoma. The world population of about 350 million people infected with HBV, 170 million people infected with HCV .[1]In Africa comprehensive HBV and HCV infection is possible because of the common pattern of virus transmission.[2,3] HBV is transmitted at birth by exposure to infectious blood, semen, other body fluids or exposure from infected mothers to infants. The spread may also occur by infusing HBV contaminated blood and blood products, contaminating injections during medical procedures, and by injecting drug use. HCV is also transmitted through blood transfusion to infectious blood.[4]

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Chronic liver disease is caused by inflammatory liver injury, which lasts 6 months and will not completely resolve. CLD includes chronic hepatitis, cirrhosis and HCC and other diseases.[5] It causes more than 1.4 million deaths each year, characterized by a permanent inflammation of the liver. About 1-2 million per year people die from HBV-related acute and chronic liver disease. Most of the chronic carriers of HBV are located in sub-Saharan Africa. The World Health Organization estimates that 350 million people worldwide suffer from chronic HBV infection and 170 million people suffer from chronic HCV infection.[6]

The positive rate of hepatitis B surface antigen (HBsAg) is estimated to be between 0.1% and 20% in different parts of the world .[7] In Africa, HBV infection plays a major role in the etiology of most liver diseases. In sub-Saharan Africa, the incidence of liver disease is high. According to reports, 12% of hospital admission and 31% mortality in hospital hospitals in Ethiopia are due to chronic liver disease.[8] In order to ensure the best clinical management of chronic liver disease patients, it is important to know the HBV and HCV status of these patients. Ethiopia's research on various subjects has proved that 2% [9] and another population based study of 0.9% occurrence.[10] However; co-infection studies of HBV and HCV in chronic liver disease are limited.

Hep C is a RNA virus that was characterized for the first time in 1980. There are 6 genotypes & above 50 subtypes. Serotype 3 is mostly in Pakistan.[11] Due to

high frequency and morbidity it is a challenging public health problem in our country.[12] Hepatitis C is most prevalent from ranging 5% to 82%.Other Studies in India also that 83% of dialysis patients show Hepatitis C, and this frequency inVenezuelais 72% and 45% in Saudi Arabia.[13]

The frequency of hepatitis C virus was 25% in patients having regular Dialysis.[14] Hep C has greater tendency to cause liver disease, whereas the frequency of hepatitis B virus causing chronic liver disease is not as much as hepatitis C.[15]75% of CLD cases reported in India[16]. 17-20% of Egyptians has chronic hep C[17], other research conducted in Pak showed 45% of hep C patients in CLD[18].There are 20-30% chances of developing liver cirrhosis in Hepatitis C infected patients. Chronic hep C is 10th most important reason of death worldwide[19].30% Hep C leads to CLD.[20]

No study has been conducted in Punjab province on frequency of hep C in pts with CLD. So, this study needs to be introduced in the real picture of chronic hepatitis C in chronic hepatitis C, providing a basis for further research.

MATERIALS AND METHODS

This cross sectional study brought out at Bahawal Victoria Hospital, Bahawalpur from January to June 2016. Serum sample collected from department of Medicine and Surgery (both indoor and outdoor department). Sample size of 100 was taken who belonged to all fields of life Sixty (60) were males and forty (40) were females. SPSS 21 used and data was presented in the form of percentages frequencies & tables.

RESULTS

100 patients were included in this study. 23 (23%) were HCV +Ve and 77 (77%) pts were HCV –VE for antibodies (Table 1)

No of male pts enrolled in study were 60 (60%) and 40 (40%) were females. Male pts with +ve hep C virus antibodies were 15(25%) while male pts with hep C virus antibody -Ve were 45 (75%). Female pts with active hep C virus antibodies were 8 (20%) while female pts with -Ve hep C virus antibodies were 32 (80%). Most pts simply did not know about vaccination, risk factors, preventive measures and treatment. This indicates a very traumatic situation for hepatitis patients in Bahawalpur.

Table No.1: HCV antibodies Serofrequency

Patients n	%	HCV Positive	HCV Negative
Males 60	60%	15	45
Females 40	40%	08	32
Total 100		23	77

Table No.2: HCV serofrequency By Gender

Gender	Number	Percentage
Males	15	25%
Females	08	20%

DISCUSSION

40-60% of patients of CLD show Chronic Hepatitis C positive and in USA it is the 10th leading cause of mortality. Hepatitis C proceeds to hepatocellular carcinoma and it is about 27% of all hepatocellular carcinoma in USA.[21]

InAsia, the frequency of hepatitis C virus is related with increase in age, [22,23] and is the main cause of mortality. Hepatitis C is the main cause of CLD that is a challenging public health problem.[24] Many viruses attack and break the antiviral response of genome and develop chronic infection that can cause CLD, cirrhosis and HCC.[25]

In developed countries many people are infected with hep C virus towards the end of the seventies (1970_s), before the availability of virus's identification and diagnostic tests in 1980s.[26]Chronic hep C continuous infection can produce symptoms, and significantly leads to CLD in 20-30 years.[27]

The estimated occurrence of hep C virus infection in the total population of the USA is 1.8% based on NHANES III, approximately 3.9 million Americans infected with the hepatitis C virus.[28] It is estimated that in the United States Hep C virus frequency was slightly higher than 2.0% in the mid-90s and expected to reduce to 1.0 % in 2030.There is an increase in the number of infected persons from 1990 to 2015 by an estimate of 40%.

The risk factors of hep C should be reduce in clear majority of patients simply not aware of any causative factors, prophylaxis, treatment and complications that indicate a very traumatic situation in patients with hepatitis B in Bahawalpur.

Intravenous administration is the foremost risk factor for 60% of cases. Before 1990, blood transfusion accounted for 10% of pts, hemodialysis pts and health care workers included only 5%, and 15%. Sexually transmitted was the risk factor. The perinatal risk of transmission of hepatitis C (6%) is much lower as compared to hepatitis B which is 20-60%.

Hep C is largely associated with the complications like cirrhosis and liver cancer. Hospital nursing staff has a significant proportion of hepatitis C-related liver disease. HCV antiviral treatment is available in outdoor of govt hospitals. The cost of interferon and ribavirin reaches in billion in the cure of hep C, which will put a burden on fragile economy. The frequency of hepatitis C is low in Bahawalpur as compared to national and international studies.

Appropriate actions should be taken to avoid the infection by HCV. Because vaccination is not available for HCV, prevention is important than treatment in the countries like Pakistan.

CONCLUSION

The rate of hep C virus antibodies is rather low down in pts with CLD approaching hospital. There is an alarming situation in District Lodhran for hepatitis patients.

Recommendation: The following steps may prevent from HCV infection.

- Media and doctors should give health education to mass about the nature, causes and complications of the disease.
- It is important to ensure proper use of disposable, sterile surgical instruments, dental and endoscopic instruments.
- Appropriate screening of blood and blood products should be carried out at each level of the medical capacity.
- In each medical center should be properly handle the hospital waste.
- The change in the barber's razor should be very obligatory.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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