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Research Article

**PREVALENCE AND RISK FACTORS OF HEPATITIS B (HBV),  
HEPATITIS C (HCV) IN RURAL AREAS OF PAKISTAN: THE  
STUDY ABOUT TWO ASSASSINATING DISEASES**<sup>1</sup>Dr. Anum Shafique, <sup>2</sup>Dr Hooria Ziab, <sup>3</sup>Dr. Shafia Manan<sup>1</sup>PMC Faisalabad<sup>2</sup>WMO, PHFMC Faisalabad<sup>3</sup>Shalamar Medical and Dental College**Abstract:**

**Background:** Hepatitis B (HBV), Hepatitis C (HCV) both are the most numerous diseases in all over the world or a dangerous virus, which kills more people and have a high world's death ratio. In Pakistan, the patients of HBV and HCV are at high ratio in rural areas rather than the urban areas. Mayo Hospital, Lahore was selected for the study and evaluation of threat factors and regularity of HBV and HCV patients in this particular area.

**Objective:** this important and forthcoming study was conducted to obtain the aim of examine the threat factors Cause the HBV and HCV, its sex evaluation, gender evaluation and its occurrence.

**Method:** During from April 2017 to March 2018 at Qadir Ali Hospital District Layyah the detailed study was arranged. Throughout these study 1050 patients of chronic liver failure were included to examine the occurrence and threat factors causes of the viruses of Hepatitis B and Hepatitis C.

**Results:** In this detailed study 1050 patients of chronic liver failure were included, 135 patients were founded both Hepatitis B (HBV) and Hepatitis C (HCV), 55 (5.23%) patients were founded +Hepatitis C and 80 (7.62%) Patients had the +HBV virus out of 1050 liver patients. Calculated average age was 36 years. Out of 135 patients of HBV and HCV, ratio of men was 45 (33.33%) and women were 68 (50.37%) as the 22 patients were below the age of 18 years. Hepatitis B and C in the patients between the ages of 21 to 36 years 45 (56.25%) +HCV patients and 33(60%) HBV patients had the viruses respectively were observed most regularly. Most prevalence found in women, 24(50.9%) women infected by HCV and 44(55%) women infected by HBV. In brief study we collected the various history of all patients and information about their age, gender, poverty, qualification, used of pumped water pipe or lined water, social status, smoking habits, intake of drugs with injection, donation of blood history and the history of organs transplantation.

**Conclusion:** As compared to the other developed countries, these two killing viruses HBV and HCV has too high occurrence in Pakistan. Women and young people mostly affected by these viruses.

**Keywords:** Hepatitis B, HBV C, Occurrence, Threats.

**Corresponding author:****Dr. Anum Shafique,**

PMC,

Faisalabad

QR code



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**INTRODUCTION:**

Main and frequent causes of chronic liver failure are Hepatitis B (HBV) and Hepatitis C (HCV). Hepatocellular carcinoma is same alike chronic liver diseases. Hepatitis B virus infected Three hundred fifty million people and Hepatitis C Virus as per research by the World Health Organization (WHO) infected one hundred seventy million people. Fifty million people were infected by Hepatitis B virus and one hundred seventy million people were infected by Hepatitis C. Due to these two killing virus ratio of death is too high. The ratio of HCV virus is too high in Pakistan. With the occurrence of HCV infected patients vary from 4.5% to 8%, among the whole world Pakistan stood on the 2<sup>nd</sup> number. Surgical instruments, blood donors, drug addicts and patients with liver failure are most frequently affective causes of Hepatitis BV and Hepatitis CV. Frequent main causes of shifting of these deadly viruses of HCV and HBV are syringes used by shickers, weak erotic relation between genders, improper blade use at barber shops, transplantation of body parts, different types of surgeries and giving the blood.

There are several severe results of hepatitis B and C viruses as it makes a home in body of some patients and can result in failure of liver. Severe liver problems are almost found in 15% to 25% of HBV patients of chronic liver disease. Medicine is

available for protection from HBV in medical sector but for curing of HCV no medication could be found yet. The symptoms of hepatitis B virus consists of temperature, loss of food desire, vomiting, pain in joints, nausea, pain below the belly, dark color of urine and jaundice.

**METHODS:**

Research for this study took place from April, 2017 to March, 2018 at Qadir Ali Hospital District Layyah. Throughout this study 1050 patients of chronic liver failure were included to examine the occurrence and threat factors causes of the viruses of Hepatitis B and Hepatitis C.

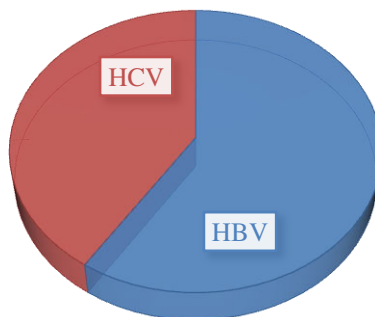
In this research we collected the various history of all patients and information about their age, gender, qualification, poverty, used of pumped water pipe or lined water, smoking habits, social status, drugs intake with injection, history of blood donation and the history of organs transplantation.

**RESULTS:**

In this research study 1050 patients of chronic liver failure were included, 135 patients were found infected with both Hepatitis B (HBV) and Hepatitis C (HCV), 5.23 percent (55) patients were founded Hepatitis C and 7.62 percent (80) Patients had the HBV virus out of 1050 liver patients.

**Table No1: Frequency of Hepatitis B and C**

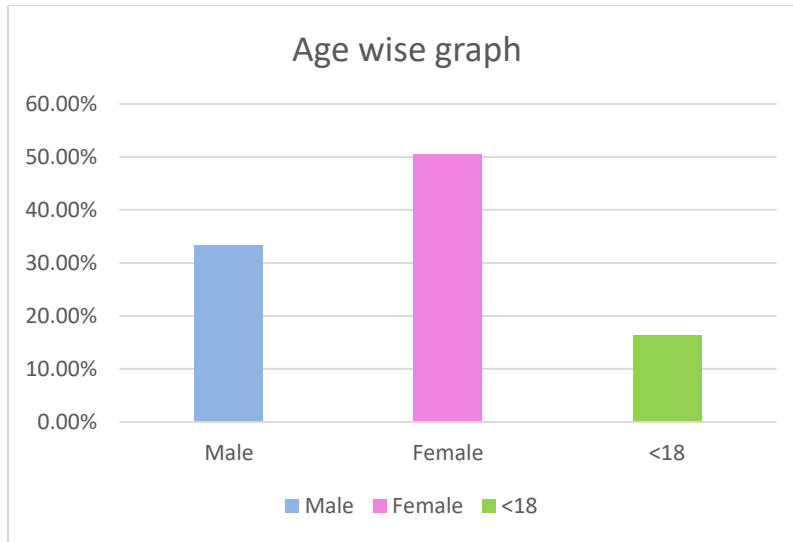
Virus Name	Percentage	Participants
Hepatitis B	7.62 %	80
Hepatitis C	5.23 %	55

**FREQUENCY**

Calculated average age was 36 years. Out of 135 patients of HBV and HCV, ratio of men was 33.33 percent (45) and women were 50.37 percent (68) as the 22 patients were below 18 years of the age.

**Table No2: Male and Female Dissemination**

Classification	Percentage	Hepatitis B & C
Male	33.3 %	18-40
Female	50.4 %	18-45
Less than 18Y	16.3 %	8-17



Hepatitis B and C in the patients between the ages of 21 to 36 years 56.25 percent (45) positive HCV patients and 60 percent (33) positive HBV patients had the viruses respectively were observed most regularly. Most prevalence was found in women, 24(50.9%) women were infected by HCV and 44(55%) women were infected by HBV.

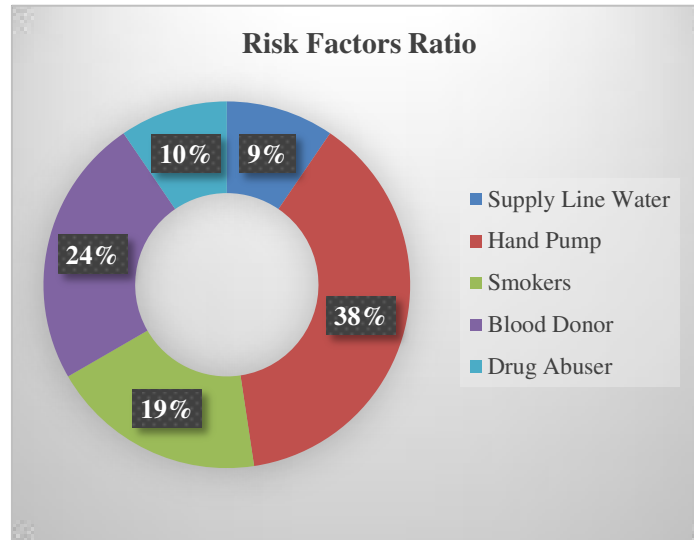
**Table No3: Distribution of Patients according to age**

Age	HBV Patients		HCV Patients	
	Qty	Percentage	Qty	Percentage
5-15	14	17.5%	8	14.5%
15-25	10	12.5%	6	10.9%
25-35	45	56.25%	33	60%
35-45	7	8.75%	5	9.1%
>45	4	5%	3	5.5%

There are many factors which increases the risk of hepatitis B and C for example drinking of water from supply pipe line and hand pump, smoking, donation of blood and abuser of drugs. Total 1050 patients were thoroughly investigated in accordance to these factors and found the following results.

**Table No4: Associated Risk Factors with HBV and HCV**

Attributes	Percentage	Frequency
Supply Line Water	9.52 %	100
Hand Pump	38.09 %	400
Smokers	19.04 %	200
Blood Donor	23.8 %	250
Drug Abuser	9.52%	100



### DISCUSSION:

Main and frequent causes of chronic liver failure are Hepatitis B (HBV) and Hepatitis C (HCV). Hepatocellular carcinoma is like the same chronic liver diseases. As compared to the other developed countries, these two killing viruses HBV and HCV has too high occurrence in Pakistan. Men and women both were found victims of these viruses. During this research study 1050 patients of chronic liver failure were included to examine the frequency and threat factors which causes the viruses of Hepatitis B (HBV) and Hepatitis C (HCV).

In this study it is found that occurrence of this disease is more in females as compared to males. Fifty six percent patients of +HCV and sixty percent patients of +HBV were observed during the research that their age is in between 26 years to 36 years. We found most prevalence in women as HBV infection in women was 55%(44) and 50.9%(28) women had HCV.

Complete information about the history of all 1050 patients was included in this brief study. It was found that 200 patients of liver diseases were smokers, 400 patients were using hand pumped water, 100 were using supply line water, 250 patients were blood donors and 100 were drug addicts. Common main reasons of transferring of these deadly viruses of +HCV and +HBV are transplantation of body parts, improper blade use at barber shops, weak erotic relation between genders, injection or syringes used by shickers, donation of blood and different types of surgeries. It is similar to the other research studies related to HBV and HCV.

There is a vaccine for medical treatment of HBV virus but, there is no vaccine invented yet for HCV patients. It might be the reason of rising ratio of morbidity and mortality due to this disease.

Moreover, this research is not sufficient and more studies are required to evaluate the significance and factors related to these viruses for enhanced medical treatment and to control the morbidity and to improve the quality and standards of life of infectious persons.

### CONCLUSION:

In this study we observed that the frequency of HBV and HCV is very high as compared to other studies conducted in the country. The reasons behind it might be less literacy rate, impure water, poverty, lack of medical facilities and lack of knowledge. Government should have to take more suitable and reliable actions against these both silent killing diseases.

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