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PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1239868>Available online at: <http://www.iajps.com>**Research Article****STUDY OF TWO KILLING DISEASES: HEPATITIS B (HBV),
HEPATITIS C (HCV), PREVALENCE AND RISK FACTORS IN
RURAL AREAS**¹ Muzaffar Munir, ² Tanveer Ahmed, ³ Farzana Muneer, ⁴ Navid Rafiq

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Abstract:

Background: Hepatitis B (HBV), Hepatitis C (HCV) a virus are the 2 most frequent diseases in all over the world, and causes more mortality and death ratio worldwide. In Pakistan HBV and HCV Patients population is too high especially in rural areas; Study was conducted THQ Hospital Chowk Azam Layyah to evaluate the frequency and risk factors of HBV and HCV patients in this area.

Objective: The aim of this prospective study was to examine the risk factors causes HBV and HCV and its prevalence, also sex and gender evaluation.

Method: This descriptive study was conducted THQ Hospital Chowk Azam Layyah, during from Feb 2017 to January 2018. In this study we included 1050 patients of chronic liver failure to examine the frequency and risk factors causes of Hepatitis B and Hepatitis C viruses.

Results: In this detailed study we included 1050 patients of liver diseases, out of 1050 We found 135 patients had both Hepatitis B (HBV) and Hepatitis C (HCV), 55 (5.23%) patients were found +Hepatitis C and 80 (7.62%) patients were found +HBV. The mean age calculated was 36.05 years. In 135 patients of HBV and HCV, men were 45 (33.33%) and 68 (50.37%) were women while 22 patients were aged of <18 years. We observed most frequently Hepatitis B and C in the patients between ages of 20 to 35 years (45 (56.25%) patients of +HCV and 33(60%) patients of HBV viruses respectively). We found most prevalence in women (HBV infection women 44(55%) and 24(50.9%) women had HCV). In this study we also included the detailed history of patients such as age, sex, socio-economic status, literacy, poverty, used of pipe lined water or pumped water, smoking history, use of drugs with used injection, blood donation history and organs transplantation history.

Conclusion: In this study we found frequency of these two killing infections HBV and HCV is too high as compared to the other developed countries. Mostly women and adults were affected to these viruses.

Keywords: Hepatitis B, HBV C, Frequency, Factors.

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INTRODUCTION:

Hepatitis B (HBV) and Hepatitis C (HCV) are the 2 most frequent viruses and main causes of chronic liver failure, hepatocellular carcinoma familiar to chronic liver diseases. [1,2] As per research of World Health Organization (WHO) about three hundred and fifty million populations have infected to Hepatitis B virus and one hundred and seventy million population found infected with Hepatitis C Virus. And death ratio is too high due to these two killing viruses. In Pakistan the ratio of HCV virus is quite high and Pakistan stand second among the world in the frequency of HCV infected people vary from 4.5 to Eight Percent. [5,6] The frequency of HBV and HCV is too high in the most frequent causes such as in donors of blood, experts of health departments, abusers of drug and severe liver failure patients. [7] Blood donation, use of syringes for drug, transplantation of organs, shaving at outside (barber shop), surgeries, dental therapy and vulnerable sexual relationships are the most common factors of transference of Hepatitis B and Hepatitis C viruses/infections. [8,9]

HBV and HCV viruses resulted as a severe infection but it remains in some patient's body and could be the chronic liver failures. Approx 16 to 26 percent of chronic liver patients of HBV having severe liver problems such as hepatocellular and cirrhosis carcinoma. In medical treatment, a vaccine used for prevention of HBV but for the prevention of HCV there is no vaccine or medication [11] The indications of HBV comprise appetite loss, fever, nausea, abdominal pain, vomiting, joint pain, jaundice and dark urine [10]

METHODS:

This descriptive study was conducted THQ Hospital Chowk Azam Layyah, during from Feb 2017 to January 2018. In this study we included 1050 patients of chronic liver failure to examine the frequency and risk factors causes of Hepatitis B and Hepatitis C viruses.

In this study we also included the detailed history of patients such as age, sex, socio-economic status, literacy, poverty, used of pipe lined water or pumped water, smoking history, use of drugs with used injection, blood donation history and organs transplantation history.

RESULTS:

In this detailed study we included 1050 patients of liver diseases, out of 1050 We found 135 patients had both Hepatitis B (HBV) and Hepatitis C (HCV), 55

(5.23%) patients were found +Hepatitis C and 80 (7.62%) patients were found +HBV.

Table. 1 Frequency of HBV and HCV Viruses

Virus	Frequency	%age
Hepatitis B	80	7.62
Hepatitis C	55	5.23

The mean age calculated was 36.05 years. In 135 patients of HBV and HCV, men were 45 (33.33%) and 68 (50.37%) were women while 22 patients were aged of <18 years.

Table 2. Gender wise distribution

Characteristics	HBV-HCV	%age
Men	30-15	33.3
Women	44-24	50.4
<18 years	14-8	16.3

We observed most frequently Hepatitis B and C in the patients between ages of 25 to 35 years (45 (56.25%) patients of +HCV and 33 (60%) patients of HBV viruses respectively). We found most prevalence in women (HBV infection women 44(55%) and 28(50.9%) women had HCV)

Table 3. Age wise distribution of patients

Age	HBV Patients n/% Total 80	HCV Patients n 55/%age
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%

In this study we also included the detailed history of patients such as age, sex, used of pipe lined water or pumped water, smoking history, use of drugs with used injection, blood donation history and organs transplantation history.

Table 4. Risk Factors associated with HBV and HCV

Characteristics	Frequency	%age
Using Pipe-Line Water	100	9.52
Home pumped water	400	38.09
Smoking persons	200	19.04
Abuser of drug	100	9.52
Blood donor	250	23.80

DISCUSSION:

Hepatitis B (HBV) and Hepatitis C (HCV) are the 2 most frequent viruses and main causes of chronic liver failure, hepatocellular carcinoma familiar to

chronic liver diseases. ^[1,2] HBV and HCV patient's ratio is too high in under developing countries. In this study we observed the similar condition as compared to the other developing countries. In this study we included 1050 patients related to the liver diseases, In which we found 135 patients having both viruses Hepatitis B and Hepatitis C respectively.

We observed that the prevalence of HBV and HCV is too high in women compared to men. We observed most frequently Hepatitis B and C in the patients between ages of 25 to 35 years (45 (56.25%) patients of +HCV and 33 (60%) patients of HBV viruses respectively). We found most prevalence in women (HBV infection women 44(55%) and 28(50.9%) women had HCV).

In this study we included detailed history of all 1050 patients. We found 100 patients of liver diseases using Pipe Lined water, 400 patients were using Home pumped water, 200 were smokers and 100 were drug abuser and 250 patients were blood donors. Blood donation, use of syringes for drug, transplantation of organs, shaving at outside (barber shop), surgeries, dental therapy and vulnerable sexual relationships are the most common factors of transference of Hepatitis B and Hepatitis C viruses/infections. It is similar to the other studies related to HBV and HCV ^[8,9]

There is a vaccine for treatment of HBV virus but, there is no vaccine for HCV patients. It may be cause to increase ratio of morbidity and mortality. Moreover, this is not a sufficient research, we should have to evaluate the significance and factors related to this disease for better treatment and to reduce the morbidity and to improve the quality of life of infectious patients.

CONCLUSION:

In this study we observed the frequency of HBV and HCV is too high as compared to other national studies. It may be due to less literacy level, poverty, less pure water, lack of facilities and lack of awareness. Government should have to take more actions regarding these two silent killing diseases.

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