

# Knowledge Regarding Risk Factors and Complications of Hepatitis B and C Virus in Newly Diagnosed Patients

Ibtisam Ilahi<sup>1</sup>, Anser Abbas<sup>2</sup> and Ruqia Bano<sup>3</sup>

## ABSTRACT

**Objective:** To determine the knowledge regarding risk factors and complications of hepatitis B and C virus in the newly diagnosed patients.

**Study Design:** Cross sectional study.

**Place and Duration of Study:** This study was conducted at the Department Medicine of OPD, DHQ Hospital Muzafargarh from April 2016 to October 2016.

**Materials and Methods:** All patients with age more than 18 years either gender, and newly diagnosed with hepatitis B or C were incorporated. All the patients were interviewed regarding risk factors and complications of Hepatitis B and C verbally. Patient's knowledge was categorized as complete knowledge, partial knowledge and no knowledge. All the information regarding age, gender, hepatitis B and C and awareness was entered in the proforma.

**Results:** Total 120 patients newly diagnosed with HCV and HBV were selected, majority of patients 45(37.5%) was found with age group of 31-40 years, and 39(32.5%) of the patients were with age group of 41-50 years. Male gender was the commonest 75(62.5%). Majority of cases 55(45.83%) had matric level education. Hepatitis C was the most common in 75% patients. Mostly patients 68% had partial knowledge regarding risk factors of hepatitis B and C, while from remaining cases 22% were unaware, and only 10% had complete knowledge. Mostly patients had partial knowledge regarding complications of hepatitis B and C, while big prevalent cases 21.67% were unknown and only 6.66% patients had almost complete knowledge regarding complications.

**Conclusion:** We concluded that mostly patients had partial knowledge regarding risk factors and complications of hepatitis B and C, big prevalent patients had no any knowledge.

**Key Words:** Hepatitis B and C, Risk factors, Complications, Knowledge.

**Citation of article:** Ilahi I, Abbas A, Bano R. Knowledge Regarding Risk Factors and Complications of Hepatitis B and C Virus in Newly Diagnosed Patients. Med Forum 2017;28(5):187-190.

## INTRODUCTION

Hepatitis B and C infection represent a considerable proportion of the hepatic disease throughout the world.<sup>1</sup> Viral hepatitis is the big event for hepatic diseases linked to liver inflammation and also in different patients long-lasting damage of the hepatic tissue.<sup>2,3</sup> It is the very serious health related issue and also very important infectious leading the reason of mortality worldwide. Hepatitis due to viruses leads at least one million deaths rate throughout the world every year. The commonest type the viral hepatitis are 6 (A, B, C, D, E and G).<sup>2</sup> HBV and HCV infections are the most common reasons for the development chronic liver disease and long-lasting hepatic damage.<sup>2,4</sup> Estimatively 2

billion are infected by hepatitis B virus and > 350 million cases are carriers throughout the world.<sup>5</sup> HCV Infection seems to be the endemic in most areas worldwide<sup>6,7</sup> and about 3.3% population of the world (200 million) are infected by HCV.<sup>8,9</sup>

Hepatitis B virus is the DNA virus in the hepatocytes it replicates, and damages liver through viral immune response. The virus is transmitted vertically at birth, horizontally through unprotected sex, sharing of injecting equipment and close contact between infants and neonates. Transmission through unscreened blood products is another route of transmission since blood remains infectious for several weeks even when dried.<sup>10,11</sup> Hepatitis C virus is an RNA virus which is transmitted by blood-to-blood contact. Sharing injecting equipment and blood transfusion are the most frequently observed routes of transmission.<sup>12</sup> Therefore, significance of the infection of hepatitis B and C in suffered cases population in several areas additionally risk factors of the viral hepatitis transmission in those areas investigations should be carried out to evaluate the measures for the decreases of such viral transmission with the sound indications in populations. Patient's awareness regarding sign symptoms, severity of the disease, its monitoring and the management options are very essential for the inappropriate self-

<sup>1</sup>. Department of Medicine, BHU, TDA district Bhakkar

<sup>2</sup>. Department of Medicine, DHQ Hospital Muzafargarh.

<sup>3</sup>. Department of Medicine, Holy family Hospital Rawalpindi.

Correspondence: Dr. Ibtisam Ilahi, Medical Officer, Department of Medicine, BHU on adhoc basis TDA district Bhakkar.

Contact No: 0313-12851728

Email: anserqureshi2015@gmail.com

Received: March 01, 2017;

Accepted: April 12, 2017

care, faithfulness to the follow up, early identification of red flag signs and looking for the treatment timely.<sup>13</sup> Therefore this study has been conducted to evaluate the awareness regarding risk factors and complications of HCV and HBV in newly diagnosed cases.

## MATERIALS AND METHODS

Present study design was cross sectional and was carried out at in medicine department DHQ Hospital Muzaffargarh and some data was also collected for private medical centers. Study duration was 6 months from April 2016 to October 2016. All patients with age more than 18 years either gender and newly diagnosed with hepatitis B or C were incorporated in the study. Patients don't want to participate in the study and those had hesitation in answered were excluded. All the patients were interviewed regarding risk factors and complications of Hepatitis B and C verbally. Patient's knowledge was categorized as complete knowledge, partial knowledge and no knowledge. All the information regarding age, gender, hepatitis B and C and awareness was entered in the proforma. data was analyzed in SPSS version 20.

## RESULTS

Total 120 patients newly diagnosed with hepatitis B and C were selected in this study, majority of patients 45(37.5%) was found with age group of 31-40 years, and 39(32.5%) of the patients with age group of 41-50 years. Male gender was the commonest 75(62.5%) and female were 45(37.5%). Majority of cases 55(45.83%) had matric level education 25% were primary passed and 20.83% were graduates while 8.34% were uneducated. Table:1.

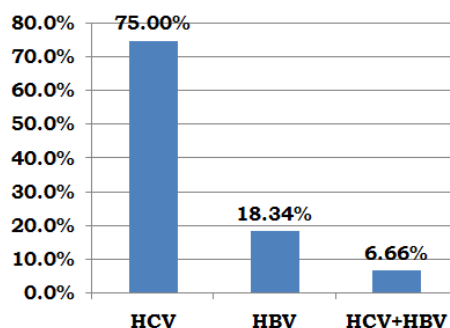
**Table No.1: Demographic data of patients(n = 120)**

Characteristics	Frequency (%)
<b>Age groups</b>	
18-30	12(10.0%)
31-40	45(37.5%)
41-50	39(32.5%)
>50	24(20.0%)
<b>Gender</b>	
Male	75(62.5%)
Female	45(37.5%)
<b>Educational status</b>	
Uneducated	10(8.34%)
Primary	30(25.0%)
Matric	55(45.83%)
Graduate	25(20.83%)

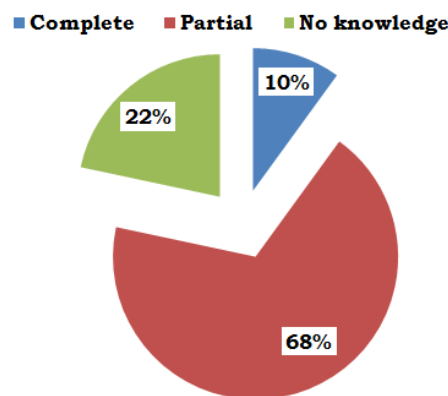
Hepatitis C was found in majority of the cases 75%, while HBV and HCV+HBV were found with percentage of 18.34% and 6.66% respectively. Fig:1. Mostly patients 68% had partial knowledge regarding risk factors of hepatitis B and C, while from remaining

cases 22% were unaware, and only 10% had almost complete knowledge Fig: 2

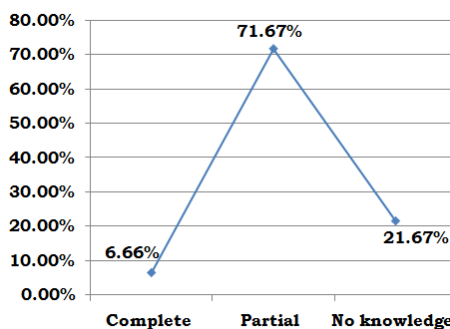
According to the knowledge of complications of hepatitis B and C, mostly patients had partial knowledge, while big prevalent cases 21.67% were unknown and only 6.66% patients had almost complete knowledge regarding complications. Fig: 3



**Figure No.1: Frequency of hepatitis B and C n=120**



**Figure No.2: Knowledge regarding risk factors of Hepatitis B and C n=120**



**Figure No.3: Knowledge regarding complications of Hepatitis B and C n=120**

## DISCUSSION

Hepatitis B and C virus are the major reason of the liver disease and having a big important cause for the morbidity and mortality. Knowledge regarding it, is very low in Pakistani population generally, especially in uneducated peoples.<sup>14</sup> In this study mostly patients 68%

had partial knowledge regarding risk factors of hepatitis B and C, while from remaining cases 22% were unaware, and only 10% had complete knowledge. As well as Mortel et al.<sup>15</sup> reported that awareness in the health care workers was poor about hepatitis c infection. In a Pakistani study of Razi et al.<sup>16</sup> reported there was a fair level of the awareness in students of the university regarding HBV and HCV. In the study of Ahmadi et al.<sup>17</sup> reported that awareness of the health care workers very low regarding hepatitis B infection. Awareness regarding risk factors of HCV and HBV was found in the study of Jokhio et al.<sup>18</sup> in which he reported that 96.2% razors after washing with antiseptic fluids after every client were used and 95.7% used the new blade. However, awareness regarding risk factors of the disease was very poor only 36.6% had knowledge that hepatitis may transmit by shaving instruments.

In this series total 120 patients newly diagnosed with hepatitis B and C were selected, majority of patients 45(37.5%) were found with age group of 31-40 years, and 39(32.5%) cases had age group of 41-50 years. Comparable results regarding age were found in the study of Irfan S et al.<sup>19</sup>

We found male gender was the commonest 75(62.5%) and female were 45(37.5%). Similarly in the study of Ghouri A et al.<sup>20</sup> reported that male were in majority with male to female ratio as 2.5:1.

In our study majority of cases 55(45.83%) had matric level education 25% were primary passed and 20.83% were graduates while 8.34% were uneducated. Similarly Haider G et al.<sup>21</sup> conducted the study regarding awareness of hepatitis B in women and reported that in 61.98% women were uneducated, 17.35% were with metric, 13.22% were had intermediate education and 7.43% were graduate. In another study of Janjua NZ et al.<sup>22</sup> conducted on barbers shops reported that 48% were uneducated.

In this study Hepatitis C was found in majority of the cases 75%, while HBV and HCV+HBV were found with percentage of 18.34% and 6.66% respectively. Comparable results were stated in the study of Almani SA et al.<sup>23</sup> and he reported that mostly 52% patients were infected by hepatitis c virus, 16% were infected by HBV and 16% patients had diagnosis of hepatitis B and C coinfection. In another study conducted by Farooqui, et al.<sup>24</sup> reported that hepatitis C infection is big prevalent in 59% patients, hepatitis B infection was in 32% patients, and coinfection of hepatitis B and C was only in 03% patients.

In this study according to the knowledge of complications of hepatitis B and C, mostly patients had partial knowledge, while big prevalent cases 21.67% were unknown and only 6.66% patients had almost complete knowledge regarding complications. In a study carried out in medical students by Anjali S in Gujarat<sup>25</sup> reported higher level of the knowledge in

86.7% study participants regarding risk factors. Ethiopian study showed that 62.4% of medical students had knowledge regarding HBV may develop the hepatic carcinoma but only 18.5% of them received vaccine of HBV. In the study of Paul P<sup>26</sup> reported that only 12% students had knowledge regarding sever complication HBV infection as well as liver carcinoma.

## CONCLUSION

We concluded that mostly patients had partial knowledge regarding risk factors and complications of hepatitis B and C, big prevalent patients had no any knowledge. Awareness programs should be created specially regarding risk factors of hepatitis B and C to prevent the healthy peoples and coming generation from this worsen disease.

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

## REFERENCES

1. Liu Z, Hou J. Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV) Dual Infection. *Int J Med Sci* 2006; 3(2):57-62.
2. Razi A, ur Rahman R, Naz S, Ghafoor F, Ullah khan MA. Knowledge attitude and practices of university students regarding hepatitis B and C. *ARPN Agri Biol Sci* 2010;5:38-43.
3. Ramsay DB, Friedman M and Borum ML. Does the race or gender of hepatitis C infected patients influence physicians' assessment of hepatitis A and hepatitis B serologic status? *South Med J* 2007;100: 683-685.
4. Bukhari SM, Khatoon N, Iqbal A, Naeem S, Shafqat S, Lone A, et al. Prevalence of hepatitis B antigenaemia in Mayo Hospital Lahore. *Biomed* 1999;15:88-91.
5. Ghahramani F, Mohammadbeigi A, Mohammadsalehi N. A survey of the students' knowledge about hepatitis. *Hepat Mon* 2006; 6: 59-62.
6. Talpur AA, Memon NA, Solangi RA, Ghumro AA. Knowledge and attitude of patients towards hepatitis B and C. *Pak J Surg* 2007; 23: 162-165.
7. Khokhar N, Gill ML, Malik GL. General seroprevalence of hepatitis B and C virus infection in the population. *J Coll Phys Surg Pak* 2004; 14: 534.
8. Wands JR. Prevention of hepatocellular carcinoma. *N Engl J Med* 2004; 351: 1567-1570.
9. Waheed Y, Shaf T, Saf Sh Z, Qadri I. Hepatitis C virus in Pakistan: A systematic review of prevalence, genotypes and risk factors. *World J Gastroenterol* 2009; 15: 5647-5653
10. Dienstag J. Acute viral hepatitis. In: Fauci A, Braunwald E, editors. *Harrison's Principles of Internal Medicine*. 17th ed. New York: McGraw-

- Hill; 2008
11. Alter MJ. Epidemiology of viral hepatitis and HIV co-infection. *J Hepatol* 2006;44(Suppl 1):S6–S9
  12. Kamili S, Krawczynski K, McCaustland K, Li X, Alter M. Infectivity of hepatitis C virus in plasma after drying and storing at room temperature. *Infect Control Hosp Epidemiol* 2007;28(5):519–524.
  13. Zevin B. Managing chronic hepatitis C in primary-care settings: more than antiviral therapy. *Public Health Rep* 2007; 122 (Suppl 2): 78-82.
  14. Jamil MS, Ali H, Shaheen R, Basit A. Prevalence, knowledge and awareness of hepatitis C among residents of three Union Councils in Mansehra. *J Ayub Med Coll Abbottabad* 2010;22(3):192-6.
  15. Ahmad K. Quake victims reach help too late to save crushed limbs. *Bull World Health Organ* 2005;83:889–91.
  16. Shepard CW, Finelli L, Alter MJ. Global epidemiology of hepatitis C virus infection. *Lancet Infect Dis* 2005;5:558–67.
  17. Sheikh MA. Earthquake in Northern Pakistan and AJK. *J Coll Phys Surg Pak* 2005;15:747.
  18. Jokhio AH, Bhatti TA, Memon S. Knowledge, attitudes and practices of barbers about hepatitis B and C transmission in Hyderabad, Pakistan: Department of Community Health Sciences, Aga Khan University Karachi, Pakistan. *East Med Health J* 2010;16(10):1079-84.
  19. Irfan S, Kamran R, Tanwani AK, Malik ZI, Khalid A, Fatima A. Frequency of Hepatitis C and Hepatitis B infection in a Tertiary Care Hospital. *Islamabad Med Den Coll* 2016;5(3):100-3.
  20. Ghouri A, Aslam S, Iqbal Y, Shah AA. knowledge and awareness of hepatitis b among students of a public sector University. *Isra Med J* 2015;7(2): 95-100.
  21. Haider G, Haider A. Awareness of women regarding hepatitis B. *J Ayub Med Coll Abbottabad* 2008;20(4):141-4.
  22. Janjua NZ, Nizamy MA. Knowledge and practices of barbers about hepatitis B and C transmission in Rawalpindi and Islamabad. *Pak Med Assoc* 2004;54(3):116-8.
  23. Almani SA, Memon AS, Memon AI, Shah I, Rahpoto Q, Solangi R. Cirrhosis of liver: Etiological factors, complications and prognosis. *J Liaquat Uni Med Health Sci* 2008;7(2):61-.
  24. Farooqi JA, Khan PM. Viral aetiology of liver cirrhosis patients in Swat. *Pak J Gastroenterol* 2002;16(2):39-42
  25. Anjali S, Shikha J. Prevention of hepatitis B; knowledge and practices among medical students. *Healthline* 2011;2(2):8-11.
  26. Paul P, Arumugam B. Knowledge and awareness regarding hepatitis B infection among medical and dental students: a comparative cross sectional study. *Int J Res Med Sci* 2017; 3(9):2352-6.