

## Awareness In Hepatitis B- Every Coin Has Two Sides

Chitrakshi Bhardwaj, Parveen Malhotra, Vani Malhotra, Pranav Malhotra,  
Navya Malhotra, Ritwik Gupta

Department Of Medical Gastroenterology, Pgims, Rohtak, Haryana, Vmcc & Safdarjung Hospital, Himsr,  
Hamdard Medical College & Hahc Hospital, New Delhi, India

---

### Abstract

**Introduction-** Hepatitis B virus (HBV) impacts large number of populations worldwide and has both hepatic and extrahepatic manifestations. It can present as acute hepatitis, chronic hepatitis, cirrhosis and hepatocellular carcinoma (HCC). In comparison to its pan global reach, there is paucity of data regarding awareness of HBV in patients, their family members and society at large. Thus, regular awareness is done regarding HBV in all of them but rarely it can prove to be double edged sword and can be misused.

**Case Report-** We report a twenty-year-old male with type A behaviour was diagnosed as chronic hepatitis B inactive carrier and was on regular follow up for last four years. He was getting his liver function tests, Fibroscan and other tests on six monthly basis and HBV DNA quantitative on yearly basis. His last viral load was 1500IU/ml only. He had been clearly and regularly updated by our team about mode of spread by blood & blood products, sexual route, unsafe injection practices and precautions to be taken for the same. He was having strained relations with his elder brother who was married and had two children. One day due to fight on some trivial issue with his elder brother, he intentionally gave multiple bites on fingers of his brother with sole purpose to transmit his HBV infection to him.

**Conclusion-** Awareness is key to good compliance and successful treatment for chronic hepatitis B which require lifelong follow up. Sometimes, this knowledge gained from health care workers can be used to take revenge or for negative purposes but this should not become detrimental in spreading awareness or breaking myths associated with deadly diseases like HBV.

**Keywords-** Chronic hepatitis B, Awareness, Revenge, Teeth Bite, Type A Behaviour

---

Date of Submission: 05-03-2025

Date of Acceptance: 15-03-2025

---

### I. Introduction

HBV infection has become major health problem in developing country like India which has many hotspots like Haryana, Punjab, Uttar Pradesh, Uttarakhand, North eastern states and Hepatitis B Surface Antigen (HbsAg) positivity varies between 2–4.7% [1,2]. In India, approximately 40 million people are chronically infected with Hepatitis B [3]. The major routes of transmission of Hepatitis B include vertical transmission, unsafe needle & sexual practices, repeated exposure to blood & blood products like who receive repeated transfusion of blood, are on maintenance haemodialysis, intravenous drug abusers, males having sex with male, female sex workers, sexual partners & care takers of HBV patient and prisoners [4]. In comparison to its pan global reach, there is paucity of data regarding awareness of HBV in patients, their family members and society at large. Thus, regular awareness is done regarding HBV in all of them but rarely it can prove to be double edged sword and can be misused.

### II. Case Report

We report a twenty-year-old male with type A behaviour was diagnosed as chronic hepatitis B inactive carrier and was on regular follow up for last four years. He was getting his liver function tests, Fibroscan and other tests on six monthly basis and HBV DNA quantitative on yearly basis. His last viral load was 1500IU/ml only, liver function test and ultrasonogram abdomen was normal. The Fibroscan score was absolutely normal i.e. 6 Kpa. His rest biochemical parameters like complete hemogram, renal function test, complete lipid & thyroid profile blood sugar and urine complete examination was normal. Hence in view of his low viral load and inactive state, he was not put on any treatment and was put on regular follow up. He had been clearly and regularly updated by our team about mode of spread by blood & blood products, sexual route, unsafe injection practices and precautions to be taken for the same. He was having strained relations with his elder brother who was married and had two children. One day due to fight on some trivial issue with his elder brother, he intentionally gave multiple bites on fingers of his brother with sole purpose to transmit his HBV infection to him



**Figure 1-** First Bite Mark on Finger given by Hepatitis B Patient to his elder brother

### **III. Discussion**

The World Health Organization (WHO) aims at reducing HBV infections by 90% and increasing global vaccine coverage to 90% [5] for which health awareness is mandatory regarding hepatitis B prevention, screening, and vaccination [6]. The HBV infection behaves like tip of iceberg where 90% of patients are unaware about it, thus remain undiagnosed and in future can progress to cirrhosis, and HCC [7]. Moreover, people at risk are having deficient awareness regarding HBV infection, thus there is low coverage of HBV vaccine among these high-risk groups who are living in high prevalent areas [8,9]. The low level of awareness in HBV patients has already been documented in large scale study by Malhotra et al who found awareness level of 2.5%-2.9% because majority were uneducated [10]. The same group even reported low level of awareness in HCV patients [11] and highlighted the importance of it even at Nursing level also [12]. There are case reports of intentionally spreading of infection by HCV patient. In Ohio, it's a felony for people who know they have HIV, viral hepatitis or tuberculosis to intentionally expose another person to their blood, semen, urine, faeces or other bodily substances such as saliva with the intent to harass or threaten the person. According to the Centre for HIV Law and Policy, have laws that make it a crime to knowingly expose others to HIV, the virus that causes AIDS. Many of these laws were passed in the 1980s and 1990s when fear and stigma about HIV were high and contracting the disease was considered a death sentence [13]. There is very limited literature regarding intentional transmission of infection by HBV patient to others. KMD Law is one of the few law firms in Los Angeles with experience in handling Hepatitis B negligence claims and have represented people who have received sexually transmitted diseases from partners who never informed them [14]. Our case highlights the rare intentional act of transmitting the HBV infection by repeated biting acts to elder brother, so as to infect him and further to his wife and kids because he had awareness of its mode of transmission which was given by our treating team. It may be explained on his baseline Type A behaviour by which he was already known to be having aggressive behaviour but this has made us to think on this rare aspect of psychology of HBV patients.



**Figure 2-** Second Bite Mark on Finger given by Hepatitis B Patient to his elder brother

#### IV. Conclusion

Awareness is key to good compliance and successful treatment for chronic hepatitis B which require life long follow up. It becomes more important in developing country like India where majority of these patients are uneducated and belong to poor socio-economic status. Sometimes, this knowledge gained from health care workers can be used to take revenge or for negative purposes but this should not become detrimental in spreading awareness or breaking myths associated with deadly diseases like HBV.

**Conflict Of Interest-** The authors declare that there was no conflict of interest or any kind of funding was taken for publishing this case report.

#### References

- [1] Abraham P. Viral Hepatitis In India. Clin Lab Med. 2012;32(2):159–174.
- [2] Thyagarajan SP, Jayaram S, Mohana Valli B. Prevalence Of HBV In General Population In India. In: Sarin SK, Singal AK, Editors. Hepatitis B In India: Problems And Prevention. New Delhi: CBS; 1996. P. 5–16.
- [3] Dutta S. An Overview Of Molecular Epidemiology Of Hepatitis B Virus (HBV) In India. Virol J. 2008; 5:156.
- [4] Sarin SK, Dhiman RK, Eapen CA, Et Al. Technical Guidelines For Diagnosis & Management Of Hepatitis 2019; National Viral Hepatitis Control Program, India.
- [5] World Health Organisation. Global Hepatitis Report. 2017
- [6] Cohen C, Holmberg SD, McMahon BJ, Block JM, Brosgart CL, Gish RG Et Al. Is Chronic Hepatitis B Being Undertreated In The United States? J Viral Hepat. 2011 Jun;18(6): 377-83.
- [7] Stanaway JD, Flaxman AD, Naghavi M, Fitzmaurice C, Vos T, Abubakar I Et Al. The Global Burden Of Viral Hepatitis From 1990 To 2013: Findings From The Global Burden Of Disease Study 2013. The Lancet. 2016 Sep 10;388(10049): 1081-1088.
- [8] Spearman CW, Afihene M, Ally R, Apica B, Awuku Y, Cunha L. Gastroenterology And Hepatology Association Of Sub-Saharan Africa (GHASSA). Hepatitis B In Sub-Saharan Africa: Strategies To Achieve The 2030 Elimination Targets. Lancet Gastroenterol Hepatol. 2017 Dec;2(12): 900-909.
- [9] Auta A, Adewuyi EO, Kureh GT, Onoviran N, Adeloye D. Hepatitis B Vaccination Coverage Among Health-Care Workers In Africa: A Systematic Review And Meta-Analysis. Vaccine. 2018 Aug 6;36(32 Pt B): 4851-4860 Epub 2018 Jun 30
- [10] Awareness In Hepatitis B Patients- Need Of The Hour. Parveen Malhotra, Vani Malhotra, Senti, Harman Singh, Sandeep Kumar And Tanya. Int. J. Adv. Res. 13(01), 50-54 (2025)
- [11] Awareness Drive Must In Hepatitis C Patients. Parveen Malhotra, Vani Malhotra, Yogesh Sanwariya, Senti, Harman Singh And Sandeep Kumar. EC Clinical And Medical Case Reports 8.2 (2025): 01-04.
- [12] Awareness At Nursing Level- Boon For HCV Patients. Babita Rani, Jyoti Rani, Hemwati, Wazir Singh Rathee. Int. J. Adv. Res.13 (01), 386-391
- [13] Laws That Criminalize Spread Of Infectious Diseases Can Increase Their Stigma. Michelle Andrews. Health Reporting In States. June 22, 2018.
- [14] Chronic Hepatitis B. Keith M Davidson. KMD Law.2025