

Hepatitis B Associated Phobias – A Hurdle To Be Crossed

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<p>Keywords: Hepatitis B virus, Phobias, Familial transmission, Sexual transmission, HbsAg, Close Contact.</p>	<p>Abstract</p> <p>Introduction: Chronic hepatitis B Virus (HBV) infection is a Pandemic disease which not only cause hepatic or extrahepatic manifestations but also has psychological impact, mainly related to phobias associated with this illness, both in patient and their family members.</p> <p>Aims and Objectives: To determine Phobias associate with Hepatitis B infection in confirmed patients of HBV and their family members.</p> <p>Materials & Methods: It was prospective study conducted at Department of Medical Gastroenterology, Post Graduate Institute of Medical Sciences (PGIMS), Rohtak, over a period of three years from 1st June, 2022 to 31st May, 2025 during which 3000 confirmed patients of Chronic hepatitis B reported in department and various kind of phobias associated with HBV infection were studied in patient themselves and their family members. Hence data pertaining to them was used in final analysis.</p> <p>Results: Out of the 3000 HBV patients, 2100 (70 %) were found to be HBV positive and 900 (30 %) were in chronic active phase or cirrhotic and were taking antiviral treatment. On analysis of 3000 HBV patients, 1980 (66%) were having phobias associated with HBV and 1020 (34%) were free of any fears associated with illness. When family members of these 3000 HBV patients were analysed, then 1770 (59%) were having phobias and 1230 (41%) were free of phobias.</p> <p>Conclusion: There are various kind of phobias associated with HBV infection both in patient themselves and their family members which should be allayed on priority by the treating team for overall better outcome, both physically as well as mentally.</p>
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Introduction

HBV transmission has many routes; most predominant one includes percutaneous or per mucosal exposure to HBV-containing body fluids. The most important source of infection is blood [1]. HBV transmission occurs through different kind of human contact, including vertical transmission from mother to newborn, sexual contact, close household contact, needle sharing, and occupational exposure (horizontal transmission) [2,3]. HBV is efficiently transmitted by sexual contact [2]. The main risk factors are unprotected sex with an HBV-infected partner, mainly unvaccinated MSM and heterosexual individuals with multiple sex partners or contact with sex workers [3]. HBV has a higher prevalence within families due to household transmission. Studies show that family members of individuals with HBV have a significantly increased risk of infection, up to four times greater than in the general population. This increased risk is largely attributed to close contact and various modes of transmission

within the household. The transmission within families occurs through blood, sexual contact, and from mother to child (vertical transmission). Within families, horizontal transmission (e.g., between spouses or children) is also common. Hepatitis B patients and their family members may experience various phobias and anxieties related to the disease's transmission, social stigma, and potential impact on their lives. These fears can stem from a lack of awareness, misunderstandings about transmission, and concerns about social acceptance. Patients may worry about transmitting the virus to family members, partners, or close contacts through sexual activity or other forms of close contact. Fears and Phobias in Hepatitis B Patients include fear of transmission of the virus to family members, partners, or close contacts through sexual activity or other forms of close contact. Other phobia is stigma related to HBV infection leading to shame, fear of social isolation, and discrimination which can lead patients to conceal their diagnosis and limit social interactions. Patients and their families may experience apprehension and fear related to the potential long-term health consequences of hepatitis B, particularly if they lack sufficient knowledge about the disease. Concerns about maintaining sexual relationships, potential marital strain, and the impact on family dynamics can be a source of anxiety. The fears and phobias in family members include concerns about contracting the virus through casual contact or other means. Family members may fear the social repercussions of having a family member with hepatitis B, including potential discrimination or ostracism. Like patients, family members may also have anxieties about the long-term health implications of the disease and its potential impact on their loved one's health and well-being. The proper addressing phobias and anxieties encompasses education and counselling by providing comprehensive education about hepatitis B transmission, management, and prevention is crucial for both patients and their families. The efforts to reduce stigma associated with hepatitis B are essential to encourage disclosure, testing, and treatment. Connecting patients and their families with support groups can provide a safe space to share experiences, reduce feelings of isolation, and learn coping strategies. Encouraging open and honest communication between patients and their families can help alleviate fears and anxieties. Providing access to mental health services can help patients and family members manage the psychological impact of hepatitis B.

Aims and Objectives

To determine Phobias associated with Hepatitis B infection in confirmed patients of HBV and their family members.

Material and Methods

It was prospective study conducted at Department of Medical Gastroenterology, Post Graduate Institute of Medical Sciences (PGIMS), Rohtak, over a period of three years from 1st June, 2022 to 31st May, 2025 during which 3000 confirmed patients of Chronic hepatitis B reported in department and various kind of phobias associated with HBV infection were studied in patient themselves and their family members. Hence data pertaining to them was used in final analysis.

Statistical Analysis

All the data was entered in Microsoft Excel and was analysed using SPSS 15.0 version.

Observations & Results

Out of 3000 patients of Chronic hepatitis B who reported in department in last three years duration, Phobias in all of them and their family members were studied. If family members were not present at time of first consultation, then they were called on follow up. At least data of one family was collected in family for interpretation of various kind of phobia and from him or her fears in other family members who were not present, was collected. The most common phobia in patient was related to effect of HBV infection on his liver (41%) and other parts of body (38%), fear of death (39%), transmission of HBV infection to other family members (40%) and social stigma (35%). Approximately 59% of patients were having no phobia of any kind related to HBV infection and by regular & proper counselling by the treating team phobias were successfully removed in 55% of patients which were confirmed on follow

up visits. The phobia in family members was mainly related to transmission of virus from HBV patient to other family members (42%), social stigma (37%), damage to liver (34%) & other organs of body (33%) and death of HBV Patient (32%). Approximately 58% of family members of HBV patients were having no phobia of any kind related to HBV infection and by regular & proper counselling by the treating team phobias were successfully removed in 45% of patients which were confirmed on follow up visits.

TABLE 1- Showing Distribution of various kind of Phobias in HBV Study Group

Total HBV Patients	Phobia of Death	Phobia of Liver Damage	Phobia of other organs Damage	Phobia of Transmission to other members	Phobia of Social Stigma	Resolution of Phobia by Counselling	No Phobia
3000	1170 (39%)	1230 (41%)	1140 (38%)	1200 (40%)	1050 (35%)	1650 (55%)	1770 (59%)

TABLE 2- Showing Distribution of Phobias in Family Members of HBV Study Group

Total Family Members of HBV Patients	Phobia of Death	Phobia of Liver Damage	Phobia of other organs Damage	Phobia of Transmission to other members	Phobia of Social Stigma	Resolution of Phobia by Counselling	No Phobia
3000	960 (32%)	1020 (34%)	990 (33%)	1260 (42%)	1110 (37%)	1350 (45%)	1740 (58%)

Discussion

HBV infection is not only physical illness but has strong mental dimensions also. Majority of treating specialists look for hepatic and extra-hepatic manifestations but give less attention to phobias and fears associated with deadly disease which transmits through blood, sexual route and close contact. The phobias can persist even throughout life, even in inactive carrier stage which are not even on any antiviral treatment. It is widely known that HBV infection leads to primarily hepatic impairment and same fact is re-enforced by treating specialist to HBV patient, thus this phobia was most commonly in our study group, followed by phobia on other organs of body. The phobia of transmission to other members, especially spouse comes next which lead to even unnecessary precautions like keeping separate utensils & washroom, not handling small kids and separate washing of clothes. The phobia of social stigma and boycott after knowing about HBV infection. In contrast, most common phobia seen in family members was related to transmission of HBV infection to other members, followed by damage to liver and other organs of index patient. Approximately 59% of HBV patients and 58% of family members had no phobia related to illness and most common reason was that majority of them were uneducated, belonging to poor socio-economic status and were unaware about the scientific & health related facts about the illness. The more education status of the HBV patient was associated with internet surfing about the illness which in some increased phobia due to complications associated with HBV. The regular counselling of HBV patient led to resolution of phobias in 55% of patient which is expected to rise on follow up. The most important aspect which led to decrease in phobias was seen with passage with time when patient gets confidence about living normal life after having this infection for years together. In comparison to HBV patient, resolution of phobias was less in family members, mainly due to more interaction of patient with treating team on follow up, in comparison to family members. It was seen that family members usually came with patient on initial visits but on later follow up visits, usually patient came alone for consultation. Hence, he or she had more chances of getting his queries solved by treating team. Moreover, it gave ample chance to patient to interact with other patients who came for

consultation. These interactions among patients are very important for infusing confidence among patients. A treating specialist may try to convince HBV patient that he or she will remain healthy but seeing other HBV patients in healthy state, gives strong confidence to the patient. The social stigma associated with HBV has many implications which even led to social and financial boycott. Many HBV patients had faced boycott on social places like tea corners and even purchasing from their shops was stopped. This kind of social stigma often leads to hiding of HBV infection by patient and their family members. HBV infection is dependent on the country of birth, as in HBV-endemic countries, most HBV transmission occurs perinatally or during childhood. In countries with intermediate and high HBV endemicity, HBV transmission mainly occurs during infancy and early childhood through vertical or horizontal transmission. In one estimate, approximately 90% of infections occur before 10 years of age, leaving many adults immune from infection later in life [4]. The familial transmission observed in our study group was around 13% which is in alignment with another study which showed 11% of all family members were HBsAg positive [5]. In another study, the prevalence rate of HBsAg, anti-HBs and anti-HBc among household members was 23.3%, 20.4% and 23% respectively. Mothers and children with 47.6% and 17.2% had the highest and lowest rates of HBV infection, respectively. There was a significant difference between mothers and spouses of index case (47.6% and 29.8%) regarding HBsAg positivity [6]. In a study conducted by Shreyasi et al, among the screened family members, 9.23% (n = 100) members were positive for HBsAg. At least one member of the family was affected in 229/361 (63.43%) index cases. Significantly lower percent of household contacts (9.23%, n = 100) were vaccinated against HBV [7]. In our department due to implementation of Jeevan Rekha Project & National Viral Hepatitis Control Program (NVHCP) through which there is provision of total free treatment including viral load and other routine tests, drugs, endoscopy, fibroscan, indoor admission in wards etc. Moreover, as a well-planned policy, hepatitis B patients are given free consultation and treatment on daily basis without any waiting period. The appointment of dedicated team which included consultant, peer view support, pharmacist and data operator played a vital role in making our model treatment centre as one of the high flow centres in India where on daily basis around thirty- five new and old patients of HBV come for consultation. There is lot of thrust on counselling which includes testing especially of the spouses and family members of HBV patients. This team effort has led to good social bonding with the patients who developed full faith in the treating team. This familial bonding led to overcome the hurdle of illiteracy and rural background in majority of patients who were treated for HBV. Thus, we were able to convince majority of patients for getting tested their family members for HBV infection. The prevalence of 12.5 % of familial transmission as seen in our study is almost in alignment with previous studies [5]. The familial transmission is very delicate issue among family members especially among spouses of HBV patients and even sometimes has led to hindrance in sexual relations, living together in same house, using of same utensils & bathrooms and rarely even in separation or divorces among couples. We have learnt in last many years by interacting with such couples, there are lots of apprehension and fear in them regarding transmission of HBV by sexual route. Sometimes, it has led to denial of sexual relationship between the couple and even in some cases temporary or permanent separation by way of divorce. A good bond between the treating team and the HBV patient & their family members is must for relieving all the fears and issues associated with HBV infection. All the HBV patients and their family members are counselled for precautions to be taken at home like use of separate brush, nail cutter, razor, towel, knife by HBV patient. We always motivate and get vaccinated the family members who are found not suffering from HBV infection. A presence of female staff in treating team is beneficial, as female patient share their problems more comfortably with the same sex member of the treating team. In our team, keeping this in mind we have trained female nursing officers who perform Fibroscan, assist in doing endoscopy and do even psychological counselling of HBV positive females or whose husband are HBV positive. Our pharmacist is also female and not only distribute drugs but also do additional psychotherapy of patients. It is frequently seen that patient and their relatives due to strong fear of HBV infection, repeatedly try to allay their fears by asking same question to different team members, thus, correct and same answers have to be given by all team members, for mental solace of patient and other family members. This Malhotra's Ashi-Angel

approach by our team has brought fruitful result which is evidenced by extra-ordinary compliance in our treated patients [8].

Conclusion

There are various kind of phobias associated with HBV infection both in patient themselves and their family members which should be allayed on priority by the treating team for overall better outcome, both physically as well as mentally. The family members of every Hepatitis B patient should be screened for HBV infection. The positive members should be evaluated in detail for stage of disease and if needed treatment should be started on priority. The members who are found to be HbsAg negative should be vaccinated with complete course of three doses of HBV vaccine.

Conflict of Interest

The authors declare that there was no conflict of interest and no funding was taken from any source to conduct this research.

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