Knowledge, awareness, and attitude on hepatitis B infection among medical students

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ABSTRACT

Introduction: Hepatitis is a seditious disease of the liver. It may lead to perpetual liver injury including hepatocellular carcinoma or liver cirrhosis and may eventually lead to mortality. Health-care workers owing to their frequent interaction with patients are at a greater danger of procuring this disease. Medical students have a very significant role in stopping the disease by enlightening the knowledge about the disease among themselves and the patients they treat. Materials and Methods: A questionnaire was prepared consisting of 20 questions which was sent as an online survey to 120 medical students from various colleges across the world (multicenter study). The online survey will be created by the use of survey planet software, and at the end, all the data were collected, compiled, and analyzed for statistical difference. Results and Conclusion: The students require more knowledge and awareness not on the actual disease itself but on how to protect themselves against it.

INTRODUCTION

Hepatitis is a seditious disease of the liver. It may lead to perpetual liver injury including hepatocellular carcinoma or liver cirrhosis and may eventually lead to mortality. Health-care workers owing to their frequent interaction with patients are at a greater danger of procuring this disease.[1] Hepatitis is categorized by the inflammation of the liver, and in numerous circumstances, hepatitis B can end in permanent liver impairment comprising liver cirrhosis or hepatocellular carcinoma and even bereavement.[2] The number of carriers in India has been valued to be just over 40 million.[3] Dentists, nurses, physicians, laboratory staff, and assistants are at greater risk of acquiring the disease through the interaction with blood and other body fluids in the progression of their work.[4] It has been perceived in the writings that the highest manifestation of hepatitis B virus (HBV) is present in dentists.[5]

Even after many publications, programs, awareness campaigns, and strategies to prevent transmission, HBV infection still relieves as a matter for humans.[6] Patients with hepatitis infection may occasionally experience judgment in their workplace, by family, and by members of the society. In addition, they may face discrimination from physicians and other health-care professionals. These discriminatory practices may be an end result of deficiency of knowledge, which may lead to adverse insolences toward these kinds of infections. This might inhibit the willingness of a health-care professional to treat these patients for the reason that they might contract or acquire the infection.[7,8]

Clinical signs and the history of hepatitis B infection differ with age. Clinical acute hepatitis B is more recurrent in adults than in children, and the likelihood of becoming a protracted carrier of hepatitis B is larger in children than adults: 80–90% of people infected before birth (in the mother’s womb) compared to <5% of infections taking place in adults.[9] People with chronic hepatitis B have a 15–25% risk of dying too early from hepatitis B-related complications.[10] Prevention is the only harmless approach counter to the high prevalence of viral hepatitis. Having sufficient knowledge and an appropriate attitude toward this infection are vital in preventing transmission of the infection. Medical students have a very significant role in stopping the disease by enlightening the
knowledge about the disease among themselves and the patients they treat.\[11\] The awareness of hepatitis B infection and its vaccine in India is believed to be very poor; however, there are no published study/data on the community awareness about HBV infection and its vaccine from India.\[12\] In a recent study conducted among dental students, overall awareness of students is high as per the knowledge regarding the knowledge of HBV and awareness about its communication.\[13\] In this study, we are going to assess the knowledge and awareness about hepatitis B infection among medical students.

**MATERIALS AND METHODS**

A questionnaire was prepared consisting of 20 questions which was sent as an online survey to 120 medical students from various colleges across the world (multicenter study). The online survey will be created by the use of survey planet software, and at the end, all the data were collected, compiled, and analyzed for statistical difference.

**RESULTS AND DISCUSSION**

When the students were asked whether they were aware of hepatitis B infection, 88.3% were aware about the infection. They were also asked whether they know the causative organism of hepatitis B infection [Figures 1-3]. 80% of students were aware about the organism that causes hepatitis B. When asked about the organ that was primarily affected by hepatitis B, majority of the students were able to identify that the liver was affected [Figures 4-6]. They were also questioned on the diagnosis of this disease as they are individuals who are going to deal with patients suffering from hepatitis B. The results showed positivity on their awareness about the diagnosis of hepatitis B as a blood-borne pathogen. They were inquired whether they take necessary precautions such as wearing gloves, masks, and changing syringes after use, and almost all of them took these precautionary methods to protect themselves against acquiring the infection. They were also asked other questions on the diagnosis of hepatitis B, its treatment, modes of transmission, etc. and displayed their basic awareness about the disease. When inquired whether they were vaccinated against the disease, almost half of the medical students who have taken this survey have not been vaccinated. Considering that health-care workers are at the highest risk factor of obtaining this infection.

![Figure 1: Are you aware of hepatitis B infection?](image1)

![Figure 2: Do you know the causative organism for hepatitis B infection?](image2)

![Figure 3: Do you know which organ is affected by hepatitis B infection?](image3)

![Figure 4: Have you taken hepatitis B vaccination?](image4)

![Figure 5: Do you take necessary precautions when you come across hepatitis B-infected individuals?](image5)
In a recent study conducted by Santosh M. Biradar, V. S. Kamble, and Shrinivas Reddy, it was found that most of the students had good knowledge about disease and modes of transmission and prevention. Shockingly, half of them were unmindful of great risk of communication to a health-care worker or a physician. Nearly 40% of the students were unimmunized largely due to deficiency of awareness and motivation.[13] In another study conducted by Preetha Paul and Balaji Arumugam, it was found that overall awareness levels were higher among medical students than dental students. They also established that the female students were more well informed than the male students among medical and dental student groups, with respect to having awareness of hepatitis B infection as well as being aware of the vaccination schedule, hostile complications that arise from the disease, the treatment, and aspect of practice. Approximately 60% of the dental students and <1% of the medical students were not vaccinated against hepatitis B.[14-15] A study done a few years back proves that majority of medical students were aware of the existence of an infectious, occupational risk due to HBV. It was found that most of the participants (57, [62.0%]) believed that they were at high risk of contracting and spreading HBV. Many of the students had decent knowledge about the disease, the causative agent, and modes of transmission and prevention. Astonishingly, half of them were unaware of high risk of transmission to health professional.[19] Among Syrian medical students, nearly 69% students were not vaccinated mainly due to lack of motivation and no one felt need for the vaccine.[20] Therefore, testing medical students for anti-HBs levels may be warranted as they represent a high-risk population.[21,22]

CONCLUSION

The medical students who underwent this study have a basic awareness about the disease as a whole, the symptoms, the treatment, the modes of transmission, etc., but even after possessing knowledge about the disease and its danger to people in the health-care industry, majority have not taken vaccination against it. The students require more knowledge and awareness not on the actual disease itself but on how to protect themselves against it.

REFERENCES

