

AWARENESS OF HEPATITIS B AMONG DENTISTS IN TEACHING DENTAL HOSPITALS OF PESHAWAR A KNOWLEDGE, ATTITUDE. AND PRACTICE STUDY

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ABSTRACT

Objective: To assess the knowledge, attitude, and practices of dentists of public and private sector hospitals in Peshawar regarding the Hepatitis B virus.

Materials and Methods: It was a cross-sectional study conducted on a private and public teaching dental hospitals of Peshawar. Data was collected from House officers and training medical officers using a convenient sampling technique. A total of 166 dentists agreed to participate in the study. A self-administered, close-ended questionnaire was used consisting of questions regarding knowledge, attitude, and practices for HBV infection and its prevention. Data were analyzed in the SPSS-20 computer program.

Results: The mean age of the respondents was 24.7 SD± 2.99 years. 47.6% had adequate knowledge, and 47.6% had excellent knowledge. Almost 59.6% dentists believed Hepatitis B was curable. Only 56.3% dentists thought HBV vaccination was safe and had no side effects. Only 18.8% dentists believed B-class autoclaves were effective in completely removing HBV from instruments. Only 25% of Dentists felt comfortable treating patients diagnosed with HBV. 31.3% of dentists had not been vaccinated against HBV. 18.8% of dentists have had to use unsterilized instruments during a procedure. 37.5% of dentists avoided treating patients with HBV.

Conclusion: Although the majority of the dentists demonstrated good knowledge, there were deficiencies in the attitude and practices about the hepatitis B virus in dentists of both public and private sectors which need to be addressed on a priority basis to stop disease transmission from this much-frequented site.

Keywords: Knowledge, Attitude, Dentists, Public Sector, Private Sector, Hospitals, Hepatitis B Virus.

INTRODUCTION

Hepatitis B is one of the major global epidemics, caused by the hepatitis B virus, it targets the liver,

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causing a life-threatening infection. It places the population at elevated risk by causing liver cirrhosis and malignant liver tumors. According to the World Health Organization reports, two billion people of the population showed serological evidence of preexisting HBV infection. Of the global bearers of HBV, 75% belong to the Asia region. Worldwide, an estimated 400 million individuals are chronic carriers of HBV and over a million people die every year

from HBV and its sequelae. Hepatitis B Virus has a very high prevalence rate, thus making the infection disease of significant public health importance worldwide.

In southeast Asian Region, 60- 80% of all primary liver cancer is caused by the infection, making it one of the top three causes of death due to cancer & it is estimated that there are more than 80 million HBV carriers in South East Asia Region, making up for almost 6% of the population.

Comparable to worldwide reports, the incidence of HBV is on the continuous rise in Pakistan. The preponderance of the virus ranges from 7- 20% in the Pakistani population and varies from region to region.

In metropolitan cities like Karachi, the prevalence of HBV has been reported to be lower (2-5%) as compared with the rural areas of the country, which range from around 30-35%. According to these statistics, Pakistan is classified as an area of 'intermediate risk' towards HBV by the World Health Organization.

The virus has typical routes of transmission, such as occupational exposure among health care workers, unprotected sexual contact, and intravenous drug use or through blood products and contamination during medical procedures. Symptoms in HBV infection appear only in 35% of those infected. It has been demonstrated that patient medical histories are unreliable in identifying exposure to the infection. Healthcare-associated infections are a very grave issue in the healthcare profession as they are common causes of illness and mortality among patients appearing for treatment. Despite the high prevalence of HBsAg among health workers, studies have revealed inadequate knowledge of hepatitis B infection and poor safety practices to prevent its transmission among them.

Objectives of the study

1. To assess the knowledge of Dentists regarding HBV and its prevention
2. To assess the attitude of Dentists towards HBV and its prevention
3. To assess the practice of Dentists in the prevention of transmission of HBV

MATERIALS AND METHODS

The study was intended to involve dentists of public and private sector hospitals in the Peshawar region. House officers and training medical officers of Sardar Begum Dental College and Khyber College of Dentistry were selected for the study by using a convenient sampling technique. A self-administered, close-ended questionnaire was used. Initially, a pilot study was performed among ten subjects. After a complete evaluation of the pilot study, minor modifications were made to the self-administered, close-ended questionnaire, and information was gathered about the knowledge, attitude, and practices for HBV infection and its prevention among the dentists. All subjects gave informed consent before the beginning of data collection for the use of their data. The target sample size was 200, but the total number of questionnaires returned was 166. Data was entered into the SPSS-20 computer program. Frequency and percentages were calculated for different segments, along with mean and standard deviation.

RESULTS

We had a total of 166 dentists. Males constituted of 33.7%, while females constituted of 66.3%. 72.3% of the dentists had the designation of House Officer, while 27.7% held the designation of Training Medical Officer. The mean age was 24.75. 72.9% of the dentists had less than one year of clinical experience.

Knowledge about Hepatitis B

Each response on knowledge was labeled as 'yes,' 'no' or 'do not know.' Knowledge was scored by giving 1 for a correct answer and 0 for a wrong answer. The scale measured knowledge from a maximum of 20 to a minimum of 0. Scores < 5 were taken as poor, \geq ten as unsatisfactory knowledge, > 10 and < 15 as adequate knowledge, and \geq 15 as excellent knowledge of HBV. Only 0.6% of the dentists had poor knowledge. 4.2% had unsatisfactory knowledge. 47.6% had adequate knowledge, and 47.6% had excellent knowledge.

	Frequency	Percent
Poor Knowledge	1	0.6
Unsatisfactory Knowledge	7	4.2
Satisfactory Knowledge	79	47.6
Excellent Knowledge	79	47.6
Total	166	100.0

No	Attitude	Yes	No	Do not Know
1	Do you think hepatitis screening should be compulsory?	162	1	3
2	Do you think HBV vaccination should be compulsory?	157	5	4
3	Do you think the HBV vaccine is effective?	139	4	23
4	Do you think the HBV vaccine is safe and has no side effects?	103	18	45
5	Do you think there should be separate instruments for patients diagnosed with HBV?	160	2	4
6	Do you think B-class autoclaves are effective in removing HBV from instruments?	53	40	73
7	Do you feel comfortable treating patients diagnosed with HBV?	64	87	15
8	Do you think following infection control guidelines will protect you from being infected with HBV at work?	138	11	17
9	Do you think you are at risk of acquiring Hepatitis B?	124	30	12
10	Do you think Hepatitis B is a severe condition?	153	6	7

No	Practice	Yes	No	Do not Know
1	Have you gotten screened for Hepatitis B?	141	21	4
2	Have you been vaccinated against HBV?	139	21	6
3	Do you ask for the screening of blood before surgical procedures?	151	11	4
4	Have you ever had to use unsterilized instruments when treating a patient?	31	127	8
5	Have you ever had a needle prick injury?	98	64	4
6	Do you report needle and blade injuries?	88	74	4
7	Do you avoid treating people who have been diagnosed with hepatitis B?	52	104	10
8	Do you use separate instruments for patients diagnosed with HBV?	157	3	6

Knowledge was assessed by asking questions about types, transmission modes, and prevention of HBV. Only 64.5% believed that Hepatitis B led to liver tumors. 81.3% were sure that jaundice was a common symptom of Hepatitis B. 72.9% thought some patients of HBV could show no signs or symptoms of the disease. 18.6% believed Hepatitis B could not be transmitted by unsafe sex. 19.2% did not think Hepatitis B could be transmitted from mother to child. Only 50% believed it possible for transmission of Hepatitis B from one person to the other by sharing the same food. 59.6% of dentists were sure that Hepatitis B is treatable. 64.5% believed that Hepatitis B could not be self-cured by the body. Only 44.6% of dentists believed that Hepatitis B is a terminal disease. 51.8% thought a specific diet was required for patients suffering from Hepatitis B. Only 16.9% of dentists had ever participated in a health education program related to Hepatitis B.

Attitude towards Hepatitis B

93.8% thought Hepatitis B screening should be made compulsory, while 6.3% were not sure. 87.5%

thought HBV vaccination should be made compulsory, while 12.5% did not believe so. 75% of dentists believed the HBV vaccine was effective. Only 56.3% dentists thought HBV vaccination was safe and had no side effects, 43.8% were not sure. 68.8% dentists believed there should be separate instruments for patients diagnosed with HBV. Only 18.8% believed B-class autoclaves were capable of completely removing HBV from instruments, while 56.3% were not sure. Only 25% felt comfortable treating patients diagnosed with HBV, 75% were not. 68.8% dentists thought they were at risk of acquiring HBV.

Practice regarding Hepatitis B

81.3% of dentists had gotten screened for HBV. 31.3% had not been vaccinated against HBV. 87.5% asked for the screening of blood before surgical procedures. 18.8% of dentists have had to use unsterilized instruments during a procedure. 37.5% of dentists avoided treating patients with HBV.

DISCUSSION

The prevalence of HBV is constantly expanding globally; prevention is contemplated as the first-rate

policy to shield a community's well-being. Deterrence can also direct to curtail of the transmission of HBV thus decreasing the prospect of infection conveyance. Deterrence against any contamination is correlative to the alertness of the community and is ruminative of the priority that is given to well-being related problems by the populace.

Moreover, it is crucial for preemption of a condition of such a universal extent, that the medical management of the aforementioned residents have a comprehensive and accurate proficiency in intercepting and countering said complication. Doctors of the dental profession are at the forefront of preventing transmission and spread of HBV and are at substantial risk themselves.

Therefore, KAP studies have a critical role in resolving the incertitude of HCW's and are extensively used in the stated community reported assessment research globally. On the contrary, there is a scarcity of data from Pakistan, and KAP towards HBV among dental practitioners is never explored. Despite the efforts made by authorities to raise knowledge and awareness about HBV, progress is rarely reported. In the present scenario, there is a need to assess the KAP status of dental practitioners towards HBV so that the information can be used to develop a better and need-based program for them. The current study aimed to assess the knowledge, attitudes, and practices in preventing HBV among the House Officers and training medical officers of private and public dental hospitals.

Results revealed that knowledge among the majority of the dentists involved in the current study, whether belonging to the public or private sector, was either satisfactory or excellent. This imbues a sense of relief as these dentists are at the forefront of dealing with carriers of the disease and have a significant role in preventing the transmission and spread among the community. Although the majority of the dentists had sufficient knowledge about this terminal disease, which is critical in dealing with the issue effectively and swiftly, some of the dentists' knowledge seemed inadequate or insufficient. Many dentists were lacking in providing the correct knowledge necessary in dealing with some aspects of Hepatitis B. This is a significant concern as dentists are at high risk of acquiring the disease themselves, as well as preventing them from transmission among

the population.

Some dentists did not believe Jaundice to be a common symptom of Hepatitis B. This lack of knowledge can become a serious concern as it will affect the recognition and diagnosis of such patients by the dentists while being treated by them. Some dentists also believed that Liver tumors could not be a complication due to Hepatitis B. Incorrect knowledge of such type can lead to improper education of the patients and will lead to dealing with the disease with less severity than required or intended. 27.1% of dentists did not believe that patients of Hepatitis B could show no signs or symptoms of the disease. This false knowledge could lead to misdiagnosis and incorrect treatment among patients suffering from the disease but showing no signs or symptoms. 18.6% of the dentists believed the Hepatitis B virus could not be transmitted by unsafe sex. This incorrect information could lead to improper education among patients, thus leading to an increased risk of transmission of the disease. 19.2% did not think Hepatitis B could be transmitted from mother to child. This lack of critical information could lead to incorrect education of expectant mothers, thus leading to an increased risk of incidence of the disease among the populace. 19.3% of the dentists believed that Hepatitis B could be self-cured by the body. Incorrect knowledge of such type could lead to improper treatment, thus leading to an increase in the fatality of the disease as well as increasing damage to the patient's body. Only 44.6% of dentists believed that Hepatitis B is a terminal disease. Beliefs of such sort could lead to a lack of seriousness, with respect to dealing with the disease and treating it on time and properly. Only 16.9% of dentists had ever participated in a health education program about Hepatitis B. Participation among dentists in such health programs at such low frequency is a major cause for concern as these dentists are at direct risk and deal with hepatitis B carriers daily. Therefore they must be able to deal with such patients with full knowledge and authority.

Assessment of attitude of the dentists revealed that the majority believed hepatitis B screening should be compulsory before any dental procedure. They also thought that HBV vaccination should be made compulsory, although some were impartial to the idea. Most thought the HBV vaccine was utterly effective, while some were not sure of its efficacy. Beliefs regarding the safety of HBV vaccine were

mixed, with almost half of the dentists not sure regarding the side effects caused by it. The majority believed there should separate instruments for patients diagnosed with HBV, although some were against the idea. Attitude towards B-class autoclaves with respect to removing HBV from instruments ultimately was mostly negative. Three-quarters of the given population was not comfortable treating patients diagnosed with HBV. The majority believed they were at high risk of acquiring HBV.

The practice among the dental practitioners regarding hepatitis B revealed that the majority had gotten screened for HBV, but not all had been vaccinated against it. The majority required their patients to be screened for HBV before any surgical procedure. Some of the dentists have had to use unsterilized instruments during a dental procedure. Almost have of the current population avoided treating patients diagnosed with HBV.

CONCLUSION

These findings indicate adequate knowledge among the majority of the dentists regarding hepatitis B. But some of the dentists had unsatisfactory knowledge. Extensive health education campaigns should be provided to these dentists as they are in direct contact with Hepatitis B carriers daily, making them prone to cross-infection, as well as at the forefront of preventing further transmission of the disease among the populace. Attitude towards hepatitis B indicated questions regarding the efficacy of the HBV vaccine as well as its safety. There was a dispute regarding the effectiveness of B-class autoclaves. The majority of dentists believed themselves to be at high risk of acquiring HBV. Practice regarding hepatitis B showed that the majority required their patients to be screened before any surgical procedure. A good number of dentists avoided treating patients diagnosed with hepatitis B.

Overall, there were deficiencies in the knowledge, attitude, and practices about the hepatitis B virus in dentists of both the public and private sectors which need to be addressed on a priority basis to stop disease transmission from this much-frequented site. A simple solution would be to provide mandatory health programs regarding such terminal diseases in order to completely educate the dental practitioners and adequately equip them with the knowledge required to limit and restrict the spread of it among

the populace.

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