

Original Research Article

Knowledge and Awareness among Dental Students Regarding Hepatitis B Infection - A Cross Sectional Study

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ABSTRACT

Introduction: Hepatitis B virus transmission in a dental setting more commonly occurs due to inadequate/improper use of safety measures by the dentist

Aim: The aim of the study was to evaluate the knowledge and awareness of hepatitis infection among the dental student.

Methods: This study was conducted among 300 dental professional in Sriganganagar district, Rajasthan. A validated questionnaire regarding the awareness and knowledge about hepatitis infection and their control measures was distributed among the undergraduate dental students of different year of study. The data extracted were analyzed and tabulated

Results: Out of 300 questionnaires delivered, 92% of the dental professionals were aware of the fatal issues of hepatitis infection and 85% thinks that the Current Curriculum Makes them Fit To Manage Patients With Hepatitis B .75% of the dental professional were not Vaccinated, which is because of lack of Knowledge (46%) and fear of vaccination (83%).

Conclusions: Although a basic knowledge in regards to hepatitis B among the health care providers are available but the rate of dentist who have been vaccine is low. Keeping this in mind, a high priority should be established in providing dental Professionals with copious knowledge as well as training session related to the same.

Key words: Hepatitis B infection, knowledge, awareness, dental student

INTRODUCTION

Viral hepatitis is a serious global public health problem. At present, six distinct types of hepatitis virus have been identified and called as hepatitis A, B, C, D, E and G viruses. For Hepatitis A virus (HAV) and Hepatitis E virus (HEV), the primary source of infection is the faeces with fecal-oral route being the most

predominant mode of transmission. Hepatitis B virus (HBV), Hepatitis C virus (HCV), and Hepatitis D virus (HDV) are blood borne viruses and are primarily transmitted through a breach in the skin (percutaneous) or mucosa (mucosal). All hepatitis viral infections are acute but hepatitis B, C and Delta can result in chronic infections. ^[1] And they are

transmitted through unprotected sexual contact, blood transfusion, reuse of contaminated needles, and vertical transmission from mother to child during pregnancy. [2]

Among them, Hepatitis B infection possesses a major health concern and is the most common blood borne viral infection, placing health care workers and medical and dental professionals at higher occupational risk. [3] Dentist among the other co- medical workers is one of the leading occupations when it comes to getting exposed to Hepatitis virus in day-to-day practice through the patient's blood or saliva. [3,4] It is of prime importance for all dental schools, medical staff, and dental staff to conduct talks and create awareness about hepatitis B infection. Thus this survey was conducted to access the awareness, knowledge, ability and management skills of a hepatitis infection among dental students.

MATERIALS & METHODS

This study was conducted among undergraduate dental students in Sri Ganganagar district of Rajasthan. The permission to conduct the study was

obtained from Institutional Ethical Committee of Maharaja Gangasingh dental college and research centre, Rajasthan. Cross sectional data were collected from direct interviewing of the subjects through a questionnaire.

Questions had multiple options which was pretested and validated as per the statistical analysis (Cronbach's alpha = 0.92). After a brief introduction, the questionnaire was distributed among the sample population and was collected immediately after completion. The collected data was subjected to analysis and the following results were obtained.

RESULTS

The study was conducted among 300 dental students with the mean age of 21. Among 300, 278 (92%) dental students consider themselves to have adequate knowledge about hepatitis B virus and 289 (96%) were aware that Hepatitis B infection is preventable by vaccination. The awareness, knowledge, ability and management skills of a hepatitis infection among dental students are shown in table 1.

Table – 1: Knowledge and Awareness about Hepatitis among dental students

QUESTION	YES N(%)	NO N(%)
Do You Consider Yourself Having Adequate Knowledge About Hepatitis B Virus?	N=278(92%)	N=22(8%)
Is Hepatitis B Is Contagious?	N=122(40%)	N=178(60%)
Do You Think Hepatitis B Is Transmitted Through Hand Shaking?	N=8(3%)	N=292(97%)
Do You Think Hepatitis B Result From Unprotected Sexual Contact?	N=293(98%)	N=7(2%)
Do You Think Hepatitis B Transmission Results From Needle Stick Injury, Exposure Of Blood Or Body Fluids?	N=297(99%)	N=3(1%)
Do You Think Aerosols Produced By Hand Piece Can Transmit Hepatitis B Infection?	N=276(92%)	N=24(8%)
Would You Carry Out Sonic And Ultrasonic Scaling In Patients With Positive Hepatitis B?	N=230(77%)	N=70(23%)
Can A Dentist Get Exposed To Hepatitis B From His Patients(Vice Versa), If He/She Does Not Use Proper Barrier Technique?	N=298(99%)	N=2(1%)
Do You Know That A Patient Carrying Hepatitis Has A Risk Of Developing Cirrhosis And Hepatocellular Carcinoma?	N=269(90%)	N=31(10%)
Do You Think That Hepatitis B Infection Is Preventable through sterilization?	N=146(49%)	N=154(51%)
Is That Necessary For A Patient To Undergo Surgical Dental Procedure To Be Investigated For Hbv?	N=264(88%)	N=36(12%)
Is There Any Definitive Treatment For Acute Hepatic B Virus?	N=156(52%)	N=144(48%)
Is That True That Hbv Can Be Suppressed But Rarely Eradicate The Virus?	N=198(66%)	N=102(34%)
Do You Know Hepatitis B Infection Is Preventable By Vaccination?	N=289(96%)	N=11(4%)
Are You Vaccinated For Hepatitis B ?	N=77(25%)	N=223(75%)
If Not Vaccinated, Is Lack Of Knowledge The Reason For It?	N=138(46%)	N=162(54%)
If Not Vaccinated, Is Fear Of Side Effects The Reason For It?	N=249(83%)	N=51(17%)
Do You Think That Your Current Curriculum Will Make You Fit To Manage Patients With Hepatitis B?	N=254(85%)	N=46(15%)
Do You Think Meetings, Journals, Books; Visual Media Will Be The Effective Way To Improve Your Knowledge About Hepatitis B?	N=298(99%)	N=2(1%)
Do You Think Dental Students Should Be Vaccine For Hbv Before They Get Exposed To Working With Patients?	N=300(100%)	N=0(0%)

DISCUSSION

The results throw some light on the dental students 'awareness and knowledge level of Hepatitis B infection and also it reveals us that the majority of dental students is well aware of hepatitis infection (N=278,92%),but in contrary to the present study Nagpal et al [5] and Reddy et al [6] stated that the level of awareness about Hepatitis B virus infection was less

Among 300 dental students, (N=77, 25%) are vaccinated for hepatitis B infection. Lack of knowledge (N=138,46%) and fear of side effects (N=249,83%) are the reasons reported by the dental students in the present study. These results are similar in the study conducted by Nagpal et al [5] and Reddy et al. [6] However, a study conducted by Garner SJ et al [7] and Chobe P et al [8] stated that vaccination against hepatitis B is recommended for all the dental students before they start their clinical phase and for susceptible dentists and dental auxiliary staff.

In the present study, 297 dental students (99%) thinks that hepatitis B transmission results from needle stick injury, exposure of blood or body fluids and this results are similar with the study conducted by Singh et al. [9] However, In study Paul et al [10] by only (N= 35, 14%) thinks that the transmission is due to needle injury and (N =57,23.2%) thinks it's due to blood exposure.

It is also quite stratified that, In the present study, about N=269 (90%) of the students are aware that Patient Carrying Hepatitis Has A Risk Of Developing Cirrhosis And Hepatocellular Carcinoma. However in the study by Paul et al N= 110 (44.7%) Where aware of that hepatitis causes cirrhosis and N 31 (12.6%) in regards to Hepatocellular carcinoma. The students are to be made aware of the signs and symptoms of hepatitis for easy identification of the effect patients, which will lead to self-protection and to provide betterment of the patient

This study highlights that students are to be vaccinated. Hepatitis Vaccination

is to be made compulsory in all institution and health care for the betterment of the professionals. About (N=300,100%) of the students support the students should be vaccine before entering the clinics. After the study was conducted, lectures where are also taken inorder to improve the awareness and students were encouraged to get vaccine as early as possible.

CONCLUSION

Although the level of awareness among the dental students in regards to hepatitis is satisfactory. The number of students who has been vaccine is very low, which implies that the students are to be motivated in getting hepatitis vaccine. It should be made compulsory for students to be vaccine before entering the clinics and knowledge in regards to the booster dose and other precaution are to be highlighted. The prior reason behind creating awareness is to make a safer environment to work for them and to Guide other colleagues.

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