

A Cross Sectional Assessment of Knowledge, Attitude and Practices towards Hepatitis B among Undergraduate Medical Students of a Medical College in rural area.

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Abstract

Introduction: Hepatitis B virus (HBV) infection is one of the most common blood borne viral infection in the world. It is a major potentially life threatening, global health problem. About 6,00,000 people die every year due to the acute or chronic consequences of hepatitis B. Health care workers including medical students are at risk of acquiring the infection while at work. **Objective:** To assess the knowledge, attitude and practice of hepatitis B infection among Undergraduate (MBBS) medical students of Dr. Rajendra Prasad Government Medical College, Kangra at Tanda. **Materials and Methods:** Knowledge, attitude, and practises towards Hepatitis B was assessed by using a pre validated questionnaire in a cross sectional descriptive study. Mean scores for knowledge, attitudes and practices were calculated using the EpiInfo software version 7. **Results:** Four hundred fifty questionnaires were distributed among the students. 387 responded, a response rate of 86%. Mean age of female students was 21.5 ± 1.59 yrs and mean age for male students was 21.9 ± 1.69 yr. Mean scores for Knowledge, Attitude, and Practises were 15.87 ± 1.57 (Maximum score 19), 2.00 ± 0.63 (Maximum Score 3) and 4.6 ± 0.97 (Maximum Score 6) respectively. This study also demonstrates some important shortcomings in the knowledge, attitude, and practises of medical students. **Conclusion:** Results of the study suggest good Knowledge, Attitude and Practice of Hepatitis B among the students. Though, overall knowledge and attitude to HBV infection is good, there is a need to develop guidelines to ensure that medical students are not only fully vaccinated against HBV but adequate practice of standard precautions is also adhered to.

Keywords: KAP, Hepatitis B, Undergraduate Medical Students

Introduction

Hepatitis B virus (HBV) –infection is one of the most common blood borne viral infection in the world that affects the liver and which is preventable. It is the one of the most common cause of chronic Hepatitis, Liver cirrhosis and Hepato-cellular carcinoma. Hepatitis B affects almost 10 % of the world population.¹ According to World Health Organization (WHO) factsheet 2013, about 240 million people in world have chronic (long term) liver infections. About 600000 people die every year due to the acute or chronic consequences of hepatitis B.²

Based on the prevalence of hepatitis B surface antigen (HBsAg), countries are classified as having High (8% of the population is HbsAg

positive), intermediate (2-7%), or low (2%) endemicity. Sub Saharan Africa, East Asia, Amazon and the southern parts of eastern and central Europe lies in the high prevalence area. Intermediate (2-7%) prevalence is in the Middle East and the Indian subcontinent. Western Europe and North America lies in the low (2%) HBV endemicity.²

HBV is contagious and transmitted from one infected individual to another through blood or other body fluids. The Hepatitis B virus is not spread by contaminated food or water.³ The main transmission route in highly endemic areas is from mother to child at birth or person to person in early childhood. Perinatal or early childhood transmission may also account for more than one third of chronic infections in areas of low endemicity although in those settings, sexual

transmission and the use of contaminated needles, especially among injecting drug users are the major routes of Infection .^{4,5}

Prevention against any disease is proportional to knowledge, attitude and practice (KAP) of the population and reflection and reflection of the importance that is paid to Health related issue by the society.⁶ Medical students, being part of the health care delivery system are exposed to the same size of risk as other health care workers when they come in contact with patients and contaminated instruments. They are expected to undertake activities related to patient care with the beginning of their clinical years.⁷ As on date very few studies have been conducted to find knowledge, attitude and practices of medical students about Hepatitis B in India. This study tries to assess the Knowledge, Attitude and Practices of the medical undergraduates which are future experts .

Materials and Methods

This cross sectional study was conducted from 14th to 28th October, 2013 in Dr Rajendera Prasad govt Medical collage Kangra at Tanda. Three hundred fifty undergraduate medical students and interns willing to participate in the study were considered for the study.

Knowledge, attitude and practice of students towards Hepatitis B virus were considered as dependent variables. The independent variables were, age, sex, and year of study. A self administered Semi structured questionnaire, having nineteen questions on knowledge about Hepatitis B, six questions on attitude and twelve questions on practice towards hepatitis B, was used. The English version of the questionnaire was used to collect the information from the respondents. The questionnaire was pretested among postgraduate students and necessary changes were implemented.

Data was checked for completeness and consistency, was coded and entered in Microsoft XL sheets and analyzed using Epi info 7 software. Descriptive statistics were conducted using frequencies and proportions.

Results

A total of 450 students belonging to 1st, 2nd, 3rd, 4th, 5th, and Internship year were approached for study and 387 students were participated in the study , making response rate of 86 percent. Mean age of the participants was 21.72 ± 1.61 years. Majority, 201 (51.93 %) were female participants. Majority, 90 (23.26 %) were from third year and least, 20 (5.17 %) participants were interns. (Table 1).

Table 1: Characteristics of the study participants, Dr RPGMC Knagra at Tanda.

Characteristics	Frequency	Percent (%)
Sex		
Male	186	48.06
Female	201	51.94
Year of study		
First year	72	18.61
Second year	86	22.23
Third year	90	23.26
Fourth year	45	11.63
Fifth year	30	7.76
Interns	20	5.17

Knowledge towards Hepatitis B virus transmission and prevention

Knowledge was assessed by questions focusing on sign and symptoms, transmission, treatment and prevention. The scoring range of the questionnaire was 19 (Highest) to 0 (lowest). A cut of 14 was kept adequate, where as 14 were considered poor. Knowledge scores for individuals were calculated and summed up to give the total knowledge score. Out of 387 participants, 52 (13.34%) participants were within the poor Knowledge range whereas 335 (86.56%) showed good knowledge about Hepatitis B virus (HBV). Mean knowledge score for the entire study group was 15.87 ± 1.57 (Table 2.)

Table 3: Response of the study participants to Hepatitis B Attitude Items Dr RPGMC Kangra

Q. No	Hepatitis B Attitude Items	Option 1 N(%)	Option 2 N(%)	Option 3 N(%)	Option 4 N(%)
1	According to you which group of people required immunization most?	Infants 97(25.06)	health care workers 80(20.67)	Both 1 & 2 210(54.27)	None -
2	Do you think you can get Hep B?	Yes 327(84.50)	No 60(15.50)		-
3	What would be your reaction if you found that you have Hep B?	Fear 212(54.78)	Surprise 123(31.79)	Sadness 34(8.79)	None 18(4.64)
4	Who would you talk to about your illness?	Physician 263(67.95)	Parents 38(9.81)	Friends 58(14.98)	None 28(7.26)
5	What will you do if you think that you have symptoms of Hep B?	Go to Hospital / Allopathic Doctor 243(62.79)	Ayurvedic Doctor 53(13.69)	Treat by my self 72(16.72)	Nothing 19(6.8)
6	What worries you most if you will be diagnosed with Hep B?	Fear of Death 209(54.01)	Spread to family 140(36.18)	Cost of treatment 29(7.4)	Nothing 9(2.41)

Table 4: Response of the study participants to Hepatitis B Practices Items Dr RPGMC Kangra

Q. No	Hepatitis B practices Items	Option 1 N(%)	Option 2 N(%)	Option 3 N(%)	Option 4 N(%)
1	Have you done screening for Hepatitis B?	Yes 31(8.01)	No 356(91.99)		
2	Have you got yourself vaccinated against Hep B?	Yes 271(70.02)	No 116(29.98)		
3	How many injections?	1, 23(8.49)	2, 102(37.64)	3, 146(53.87)	
4	Do you ask for new syringe before use?	Yes 360(93.02)	No 27(6.98)		
5	Do you ever got accidentally pricked by needle?	Yes 39(10.08)	No 348(8.92)		
6	If yes then were you aware of Hep B status of the patient?	Yes 30(76.92)	No 9(23.08)		
7	what measures you took after needle prick?	Immunoglobulin	Hep B vaccine	Both	none 39(100)
8	Is Immunoglobulin or Hep B vaccine available with hospital ?	Yes -	No -		
9	If no did you purchased by yourself?	Yes -	No -		
10	Was money refunded by hospital?	Yes -	No -		
11	In case you are diagnosed with Hep B , would you go for further investigation and treatment ?	Yes 357(92.25)	No 30(7.75)		
12	Have you ever participated in health education programme related to Hep B?	Yes 387(100)	No -		

new syringe. When we asked them in case you are diagnosed with Hepatitis B, would you go for further investigation and treatment? Majority of the participants, 357(92.25) replied affirmatively. Hundred percent of the participants never participated in any kind of health education programme related to hepatitis B virus. Mean score for hepatitis B virus practices for all the participants was 4.6 ± 0.97 (Table 4).

Discussion

The current study was sought to evaluate the knowledge, attitude and practices towards hepatitis B virus (HBV) of undergraduates medical students. Overall results are good but symptoms and sign are not clear to all. The knowledge about transmission of Hepatitis B through sexual route (89.93%), by used needle and syringes (83.21%), by blood transfusion (85.27%) is high, but 20.16% still thought that Hepatitis B can be transmitted by contaminated water/food prepared by person suffering from this.

Among the study participants, 54.27 % say that vaccination is required for both infants and health care workers, again a major sign of concern. 16.72% thought that if they get infected with Hepatitis B virus they can treat themselves. Majority of the participants 54.01 %, feared death if get infected with hepatitis B virus .

In the present study 91.99 % never got themselves screened for hepatitis B virus status and only 70.02% of the participants had some kind of vaccines. Only 146 participants out of 271 got full immunization against hepatitis B virus. Among undergraduate participants 10.08% had accidental needle stick injury but 100% did nothing as they were aware about the status of hepatitis B virus of the patient from whose needle they accidentally got pricked. Another point of concern is that 100 % participants never participated in any kind of health education programme which was related to hepatitis B virus

Conclusions and recommendations

This present study concludes that there is good knowledge among the medical undergraduates.

Moreover all students are not vaccinated against Hepatitis B virus. Hundred percent never participated in any kind of health education related to HBV .

Since medical and health care workers are at increased risk of acquiring needle stick injury and exposed to blood and blood products in their professional practice, they must get vaccinated at the time of entry to medical college. Medical colleges should have occupational or student health departments that must take responsibility for HBV testing, vaccination, monitoring vaccine response and providing post exposure prophylaxis. Department of Community Medicine can be given the responsibility. It is also recommended that as soon as the students enter the college their first few classes should be specially on universal work precautions .

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