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ASSESSMENT OF KNOWLEDGE REGARDING HEPATITIS B VIRUS INFECTION AMONG PRECLINICAL, PARACLINICAL AND CLINICAL MEDICAL STUDENTS

Kumudini TS*¹ and Shivakumar S Solabannavar²

¹PG Student, ²Professor and Head SNMC, Bagalkot, Karnataka, India.

ABSTRACT

Background: Hepatitis B (HB) is a serious infection that affects liver and caused by Hepatitis B Virus (HBV). It is contagious and easy to be transmitted from one infected individual to another by blood to blood contact, mother to child and unprotected sexual intercourse. Health care personnel especially medical student represent high risk population for HBV infection. Objectives: To assess knowledge, practice about transmissions and prevention of HB infection among preclinical, paraclinical and clinical Medical Students. Materials and Methods: The study was conducted at SNMC, Bagalkot from December 2014 to January 2015. A cross sectional study was conducted among 450 randomly selected medical students a self-structured questionnaire of 15 different statements concerning basic knowledge of HBV, its transmission, risk behaviors, diagnosis, treatment and prevention were distributed. Results: Good knowledge score (≥ 12) more in clinical students (93.33%) followed by 90.0 % in paraclinical students and least 69.33% in preclinical students. Few students had acceptable knowledge score (6-11) particularly in preclinical 30.62%, 10.0% paraclinical and 6.67% in clinical students. The vaccination rate was highest among clinical students (54.67%) in comparison to paraclinical (46.67%) and preclinical students (36.67%). More over vaccination rate was highest among those who had good knowledge. Conclusion: This study indicates that lack of awareness about HB, its transmission and prevention among the medical students entering into the profession. The majority of students showed some knowledge regarding HBV transmission, risk behaviors and prevention. Majority of the students (54.0%) were not fully vaccinated against HB, which makes them vulnerable to the disease.

Key Words: Hepatitis B Virus, Transmission, Prevention and Vaccination.

INTRODUCTION

Hepatitis B virus (HBV) is one of the most common viruses in the modern world and about 360 million people are chronically infected with HBV. These chronically infected persons are at higher risk of death from HBV-related liver cancer or cirrhosis by approximately 25% [1]. HBV is a well - known occupational hazard of health care workers and they are considered to be at substantial risk of transmitting the virus during occupational contact with blood, blood products and other body fluids [2].

Knowledge regarding HBV and safety precautions is needed to minimize the occupational acquired infections among health personnel [3].

Health care personnel should have complete knowledge of HBV infections and importance of vaccination and practice of simple hygienic measures apart from that of specific protective measures. Medical students being part of the health care delivery system are exposed to the same risk as other health care workers when they come in contact with patients and contaminated instruments. They are the first level of contact between patients and medical care [3,4].

Therefore, this study was conducted to assess the knowledge of medical students regarding hepatitis B virus infection and its transmission and prevention.

Corresponding Author

Kumudini TS

Email: drkumudini76@gmail.com

MATERIALS AND METHODS

A cross sectional study was conducted among undergraduate preclinical, paraclinical and clinical medical students of S Nijilingappa Medical College, Bagalkot from December 2014 to January 2015. A total of 450 randomly selected students, from preclinical, paraclinical and clinical medical students, were invited to participate in the study. A specially designed questionnaire was used for data collection. The students were asked to answer each question with 'Yes' or 'No'. Each correct answer was given a score of '1' while a wrong answer was given a score of '0'. Students' knowledge was classified to three levels according to the total score obtained; a total score of 0-5 was regarded as poor knowledge, 6-11 as acceptable knowledge and 12 and above as good knowledge.

RESULTS

Good knowledge score (≥ 12) more in clinical students (93.33%) followed by 90.0 % in paraclinical students and lastly 69.33% in preclinical students. Few students had acceptable knowledge score (6-11) particularly in preclinical (30.62%), paraclinical (10.0%) and 6.67% in clinical students [Table No: 1]. The vaccination rate was highest among clinical students (54.67%) in comparison to paraclinical (46.67%) and preclinical students (36.67%) [Table No: 2]. Majority of the students were not fully vaccinated against HB (54.0%), which makes them vulnerable to the disease and also vaccination rate was highest among those who had good knowledge.

Table 1. Association between knowledge score among preclinical, paraclinical and clinical Medical Students (n=450)

Study Group	Knowledge Scores					
	Poor (1-5)		Acceptable (6-11)		Good (≥ 12)	
	No.	%	No.	%	No.	%
Preclinical students	Nil	Nil	46	30.67	104	69.33
Paraclinical students	Nil	Nil	15	10.0	135	90.0
Clinical students	Nil	Nil	10	6.67	140	93.33

Table 2. Association of vaccination status with study group (n=450)

Study Group	Vaccination against HBV			
	YES		NO	
	No.	%	No.	%
Preclinical students	55	36.67	95	66.33
Paraclinical students	70	46.67	80	53.33
Clinical students	82	54.67	68	45.33
Total	207	46.0	243	54.0

DISCUSSION

Health care providers especially physicians and medical students are always in direct contact with patients, during blood transfusion and surgical operations in their practices, so they are vulnerable to the acquisition of infection [5]. Assessing people knowledge is a useful step to assess the extent to which an individual adopting good practice.

In two other studies reported a high proportion of medical students and health care workers having good knowledge about HBV, 86.7% and 49.3% respectively. [6,7]. Vaccination against HBV infection can prevent the disease and low proportion of the students (46%) had received HBV vaccine in our study as observed in another study (45%) [5]. The present study HBV vaccination rate significantly higher among clinical students (54.67%) than

paraclinical (46.67%) and preclinical medical students (36.67%). In one study HBV vaccination rate was significantly higher among clinical students (68%) than preclinical students (22%) [6]. This finding was in disagreement with another study where 84 % of the medical students in the paraclinical students were completely vaccinated for HBV as compared to 60% of the clinical students [8].

CONCLUSION

This study indicates that lack of awareness about Hepatitis B virus infection, its transmission and prevention among the medical students entering into the medical profession. Key message-Prevention is better than cure.

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