

WILLINGNESS OF MEDICAL STUDENTS FOR HEPATITIS B & C SCREENING

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ABSTRACT

Background: Health care workers including medical students are vulnerable to hepatitis B & C virus infections. The objective of this study was to determine the level of willingness for screening among medical students.

Methodology: This cross-sectional survey was carried out at Gomal Medical College, Dera Ismail Khan from 1st April 2010 to 15 June 2010. All enrolled students were notified to report for screening for Hepatitis B & C. Those who reported were tested for hepatitis B & C. The screening was performed by immuno-chromatographic technique (ICT). The data was analysed in SPSS version 13.0. Willingness score between male and female students and pre-clinical and clinical students was compared by chi square test and p-values calculated.

Results: There were 330 students in Medical College at the time of study, with 222 males and 108 females. Among these 168 students were in the preclinical and 162 in the clinical classes. Out of these, 171(52%) reported for screening; 106(62%) males and 65(38%) females; 103(60.2%) preclinical and 68(39.8%) clinical students. Only one male student (0.6%) was found to be HbsAg positive and none for anti-HCV. A significant difference was noted on comparing the willingness level regarding screening between male and female, as well as preclinical and clinical students ($p < 0.05$).

Conclusion: There is a lack of willingness regarding screening for hepatitis B & C among medical students, especially male students of clinical years. Medical students need motivation for screening at the start of their professional training.

KEY WORDS: Medical students, Hepatitis B, Hepatitis C, Screening.

INTRODUCTION

Viral Hepatitis is a serious public health problem. About 2 billion people have serological evidence of past or present infection with hepatitis B virus (HBV) and 350 million are chronically infected, which may progress to cirrhosis and hepatocellular carcinoma (HCC), causing over 1 million deaths per year and representing 5-10% of cases of liver transplantation.¹⁻⁴ Similarly about 170 million people have chronic hepatitis C virus (HCV) while 3-4 million people are acquiring it every year.⁵

In Pakistan sero-prevalence of hepatitis is around 23%.⁶ Health care workers including medical students handle blood transfusions, injections and infected instruments, making them vulnerable to acquiring as well as transmitting Hepatitis B & C virus infections during their professional training.^{7,8}

There is lack of routine serological screening and low immunization rate among medical students in Pakistan.⁹ Hepatitis B & C virus infections are highly prevalent in Pakistan but the level of knowledge is quite low.^{10,11} In Pakistan lack of rou-

tine screening prior to surgery in many hospitals has also contributed towards increased risk of disease transmission.¹² The general concern about high prevalence of HBV & HCV among health workers including medical students is gradually increasing.¹³ Vaccination against HBV should be mandatory for healthcare workers including medical students and anti-HBs titer must be evaluated.¹⁴ They must know the risk involved and take appropriate precautions in treating their patients.¹⁵

The common barriers to control the problem of high prevalence include negligence, vaccine unavailability, fear of side effects, lack of knowledge and cost.¹⁶ Control of viral hepatitis needs education and right attitude.^{17,18}

This study was carried out to determine the level of willingness for HBV & HCV screening among medical students.

MATERIAL AND METHODS

This Cross-sectional survey was carried out in Pathology Department, Gomal Medical College, D.I.Khan, from 1st April 2010 to 15th June 2010.

Pre-clinical students studying Basic Medical Sciences comprise of first year and second year, while the next three years students visit the hospitals and are called clinical classes.

All the students were repeatedly notified to under take the screening. Those who reported to the laboratory were screened for hepatitis B & C. Confidentiality about the students' names and their results was strictly maintained. All the participants were informed of their results. Those who did not turn up for screening were regarded as un-willing

The screening for HBsAg and Anti-HCV was performed with ICT device. The data entry and analysis was done in SPSS version 13.0. Chi square test was used to compare willingness scores between male and female students and pre-clinical and clinical students and p-values were calculated.

Enzyme Linked Immunosorbant Assay (ELISA) was performed on for confirmation.

RESULTS

There were 330 students in Medical College with 222 males (67%) and 108 (33%) females. Among these 168 (50%) were pre-clinical and 162 (50%) clinical students.

Out of these, 171 (52%) reported for screening, comprising of 106 males (62%) and 65 (38%) females; 103 pre-clinical and 68 clinical students.

Only one male student (0.6%) was found to be HbsAg positive and none for anti-HCV.

Regarding willingness, a significant difference was noted between male & female and pre-clinical & clinical students ($p < 0.05$). (Table 1)

Table 1: Gender and Class wise distribution of willingness to screening.

	Willing	Non willing	Total
Gender:			
Male	106	116	222
Female	65	43	108
Class:			
Preclinical students	103	65	168
Clinical students	68	94	162
Total	171	159	330

DISCUSSION

Medical students are prone to get hepatitis B & C infections during their training period. They can also transmit it to the patients. Willingness for screening and subsequent vaccination is important to protect both the groups. In our study 52% students showed willingness for screening. These values are lower than the results given by other studies like Torda AJ¹⁹ which showed 85% willingness among the enrolled medical students.

Lack of willingness in medical students could be due to low level of awareness and motivation regarding safety from such life threatening infections. This can be raised by re-enforcing the health messages regarding both the infections. Studies conducted by Chaudry et al,²⁰ Imam et al,²¹ and Al-jabari et al²² showed clear evidence that lack of awareness is behind the high prevalence rates of Hepatitis B & C virus infections in under developed world.

In our study the willingness for screening was 60.23% in pre-clinical and 39.76% in clinical students. This difference was significant with a p value of < 0.05 . This is contradictory to the results revealed in other studies like that conducted in medical university of Karachi which observed higher orientation of these infections in clinical rather than pre-clinical students.²³

Our study showed the prevalence of these infections to be 0.6% which is lower as compared to general public in Pakistan.²⁴ This result is in line with the results given by Robert P²⁵ which showed a prevalence of HbsAg as 0.9% in medical students.

CONCLUSION

There is lack of willingness for hepatitis B & C screening among medical students in our set up, especially male students of clinical years.

Medical students need awareness and motivation for screening at the start of their professional training.

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