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KNOWLEDGE AND STATUS OF HEPATITIS B VACCINATION AMONG THE NEWLY ADMITTED MBBS STUDENTS IN CHITTAGONG MEDICAL COLLEGE

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Abstract

Hepatitis B is a global health problem. The young acquire the virus either vertically or horizontally, remains asymptomatic for long time and later develops complications like cirrhosis and hepatocellular carcinoma. Health professional are at more risk. Vaccination against hepatitis B can prevent this deadly disease. This survey was conducted to assess the Knowledge and Status of Hepatitis B vaccination among the newly admitted MBBS students in Chittagong Medical College. Among 167 students only 62(37%) of the students were immunized against the hepatitis B virus .Male female ratio was equal amongst the vaccinated. Students coming from capital city and urban area are more vaccinated than rural area. The overall level of knowledge about HBV infection was deemed poor. Reasons cited for non-immunization are lack of awareness, cost, inertia and non-availability of vaccines. We conclude with recommendations on how to improve knowledge about HBV infection and uptake of vaccines among the medical professional.

Introduction

Hepatitis B infection is one of the major infectious diseases of mankind: of 360 million chronic carriers worldwide, 78% are in Asia, 16% in Africa, 3% in South America and 3% in Europe, North America and Oceania combined. HBV infection is the most common cause of chronic hepatitis, liver cirrhosis and HCC worldwide [1] the burden is intermediate in developing countries like Bangladesh where the incidence is 7% [2].

Reduction of hepatitis B infection is a national public health priority [3].

In Asia and Africa, HBV infection is often acquired early in life, either vertically from perinatal transmission or horizontally from contact with other infected individuals [4]. In the United States, >330 000 new cases of hepatitis B occur per year [5]. Approximately 70% of new hepatitis B infections occur in adolescents and young adults. According to the Centers for Disease Control and Prevention (CDC), HBV is about 100 times easier to transmit than HIV virus [6].

Seroprevalence studies have demonstrated that specific populations are at particularly high risk of hepatitis. The greatest number of reported HBV infections is in young adults, due to sexual transmission of the disease, as well as other youth-associated risk factors [7]. Asian children are relatively under vaccinated for hepatitis B [7].

The hepatitis B vaccine has contributed to a substantial decrease in HBV infection, particularly in children and adolescents among whom vaccination coverage has been the highest.

Relatively few studies have focused on the health status and health behavior of Bangladeshi young and little effort has been directed at health education on hepatitis for Bangladeshi young. This study was aimed to assess the level of knowledge about and vaccination status against hepatitis B among Bangladeshi young, selected for medical profession, a group at high professional risk for hepatitis B.

Method

This was a descriptive, prospective and cross sectional study. 167 young (age of 18-19 year) selected for MBBS course January 2006, in Chittagong Medical College are questioned during their routine medical check up. Questions on hepatitis B were designed to assess their basic knowledge about the infection and past screening, awareness of blood testing for hepatitis B, knowledge of the results of blood test for hepatitis B if tested and status of vaccination if they had so.

Results

Of the total 167 students, male was 91 and female was 76.Of 167 students, only 62 (37%) were vaccinated. Out of 91 male 33(36 %) were vaccinated. 5 of 33(15%) male suffered from jaundice in their past life prior to vaccination.

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Among the 76 female students, 29(38%) were vaccinated and of this 29, 11 suffered from jaundice prior to vaccination. Students who had not been vaccinated are not concerned about the disease.15% were students were aware but remained unvaccinated. Among the vaccinated 9% were partially vaccinated i.e. waiting for booster dose.

We could not find any difference among the students being learned from Bengali and English medium school .We observed that those students(70%) of urban society and capital city of Dhaka were more knowledgeable and vaccinated than those(30%) of rural and peripheral districts. However, there was a significant relationship between perceived susceptibility, knowledge and acceptance of the HB vaccine.

Discussion

Knowledge of hepatitis B was low overall in this study. Bangladeshi young were more knowledgeable than those of African-American (37%vs 22.6%) but almost similar to that of Vietnamese. (37% vs. 35.6%)8. Reasons cited for non-immunization are lack of awareness, cost, inertia and non-availability of vaccines. There is no formal school based health education in our country which may be the important reason of lower level of knowledge of hepatitis B. Both the male and female are equally vaccinated in this study which signifies that parents are equally concerned for their boys and girls.

This study observed that students of urban society and capital city were more knowledgeable and vaccinated than those of rural and peripheral districts. Some of the English school in the capital city made the hepatitis B vaccination compulsory might explain the situation. Regarding medium of learning has a positive impact on the knowledge of hepatitis8. We did not find any difference either English or Bengali in this regard.

Hepatitis B virus (HBV) infection is an occupational risk for physicians and surgeons especially in developing countries where asymptomatic carrier rate is about 15%9. Despite better knowledge about mode of transmission and methods of prevention including use of active immunization, it still remains a threat. In Medical College though the doctors are treating the patients of infectious disease even then the percentage of unvaccinated doctors are high and many are sufferer of acute and chronic liver disease. Our study observes the fact that many of this of unvaccinated (63%) will remain without vaccination and will be always put themselves in risk of acquiring hepatitis B Several limitations of this study are worth noting. Because of restrictions on inclusion of survey questions about sexual activity, we were not able to inquire about, sexual activity. All data are self-reported, and we were not able to validate responses to questions about themselves or family members, or about personal blood testing for hepatitis B. Although this study is based on a local sample in Chittagong, Bangladesh, we have reason to believe the findings apply more broadly. The data presented in this study will be relevant to health of Medical professionals in the prevention programs at the primary level.

Conclusions

Overall, these results suggest that more attention should be addressed at providing health education on hepatitis B to young. A rational health education strategy should incorporate hepatitis B education. Pediatricians, family physicians and other health care providers can play a very important and effective role in improving this situation. It would be wise to make mandatory for every student to be vaccinated against hepatitis B just at their entry in the medical profession, at least so long hepatitis B is not incorporated in the national immunization programme.

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