

Knowledge among Patient's Siblings Regarding Hepatitis B at a Tertiary Care Hospital, Lahore

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ABSTRACT

Aim: To see knowledge of patient's siblings regarding Hepatitis B at a Tertiary Care Hospital, Lahore

Study design: Descriptive cross-sectional study

Place & duration of study: Services Hospital, Lahore over a period of six months

Methods: 377 patient's siblings who accompanied patient for more than two days were included. Data was collected using a structured pretested questionnaire. Data was entered and analyzed in SPSS 17 statistical package. Data was presented in the form of tables.

Results: Among 377 participants, who responded to questionnaire, majority were male between the ages of 26-35 with male to female ratio of 3:1 and most of them were undergraduates. Regarding knowledge, most of the participants were having poor knowledge of transmission of Hepatitis B.

Conclusion: Patient's siblings who accompany patients in medical wards are having poor knowledge of transmission of hepatitis B. This gap in knowledge is an important challenge for the prevention of spread of Hepatitis B.

Keywords: Hepatitis B, patient's siblings.

INTRODUCTION

HBV is one of the leading causes of morbidity and mortality. According to WHO, of the 2 billion people who have been infected with the hepatitis B virus (HBV), more than 240 million have chronic (lifelong) infections¹. Carrier rate is 10–15 % in adult². The carrier rate varies in different areas of the world. In Pakistan carrier rate is 10-15% in adults and 5% in children up to 5 years of age³. In India, HbsAg prevalence is between 2%-10% among study populations and there are 40 million carrier of Hepatitis B⁴. Up to 60% of patients with hepatitis were found to be HBV seropositive in Pakistan⁵. In a study conducted in Hazara Division, there were 30.35% positive for HbsAg and this was more in males (73.43%) and less in females (26.56%) among all patients suffering from chronic liver disease⁶ (Khokhar et al 2004). In Pakistan, 3% of normal individuals of Karachi were +ve for HbsAg which has been noted to be 1.07% in Iran and 1.08% in U.A.E. In Pakistan, 10% of general population and 8% of pregnant females were reported to be carriers of HbsAg⁷. In Pakistan, prevalence of HBV ranges from 2.28–5.6%. Positivity of HbsAg was found to be 2.21% in volunteer donors⁸.

General sero-prevalence of HBV infection in population was examined for the presence of Hepatitis B surface antigen and it was found that 2.56% individuals had positive HbsAg and predominantly it was in healthy (asymptomatic) male young population⁶.

Hepatitis B is essentially a blood borne infection. It is transmitted by injecting drug, transfusion of infectious blood and blood products, dialysis, contaminated syringes and needles, prick of skin, handling of infected blood, surgical and dental procedures, traditional tattooing, ear piercing, ritual circumcision, acupuncture, sharing razors, toothbrushes etc. Spread of infection from HBV carrier mothers to babies can occur.

Diagnosis is usually made on screening of HbsAg and by ELISA. Important marker for the disease is HbeAg, which shows disease infectivity and ongoing liver injury.

Hepatitis B is preventable disease. Although the vaccine will not cure chronic hepatitis, it is 95% effective in preventing chronic infections from developing, and is the first vaccine against a major human cancer. In 1991, the World Health Organization called for all children to receive the hepatitis B vaccine, and 116 countries have added this vaccine to their routine immunization programs. The vaccine is given in three doses at 0, 1 and 6 months. An effective antibody response is attained after three doses in 95 percent of vaccines.

The objective of the study was to see knowledge of different modes of transmission of hepatitis B

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infection among patient's siblings attending Services Hospital Lahore

MATERIALS AND METHODS

This was a descriptive cross sectional study conducted on patient's siblings attending Services hospital Lahore. Sampling technique was non-probability convenient sampling. A questionnaire was formulated and translated into Urdu language. Data for the study was collected at Services Hospital, Lahore. Data was analyzed through SPSS 17. Data like demographic characteristics were coded into numbers and then registered in the SPSS-programs using descriptive statistics. Categorical data was measured in percentage while continuous variables measured as mean±standard deviation. A p-value less than or equal with 0.05 was considered as significant.

Knowledge about Mode of Transmission among participants

Knowledge of Hepatitis B	Yes	No	Don't know
Have you heard about Hepatitis B?	375(99.46%)	0(13.79%)	3(0.79%)
Hepatitis B is infection of liver?	278(73.74%)	64(16.79%)	35(9.28%)
People get hepatitis B from transfusion of infectious blood and blood product?	153(40.58%)	193(51.19%)	31(8.22%)
People get hepatitis B from contaminated syringes and needles?	161(42.70%)	179(47.48%)	37(8.22%)
People get hepatitis B from traditional tattooing, ear piercing etc?	138(36.60%)	193(51.19%)	46(12.20%)
People get hepatitis B by touching and shaking hand with patient?	105(31.15%)	240(71.21%)	32(8.48%)
People get hepatitis B by sharing razors, toothbrushes of patients?	149(39.52%)	199(52.78%)	297.69%)
People get HBV by sharing spoons or bowls for food?	81(21.48%)	255(67.63%)	41(10.87%)
People get hepatitis B from sharing the papers and books of patient?	33(8.75%)	332(88.06%)	12(3.18%)
People get Hepatitis B from genes (heredity)?	47(12.46%)	289(76.65%)	51(13.52%)
People get hepatitis B from HBV mothers to babies at the time of delivery?	89(23.60%)	237(62.86%)	51(13.52%)
People get hepatitis B by eating food prepared by patient?	42(11.14%)	310(82.28%)	25(6.63%)
People get hepatitis B from sexual contact or sexual act?	71(18.83%)	279(74%)	27(7.16%)
Hepatitis B can be prevented by vaccination?	209(55.43%)	150(39.78%)	18(4.77%)
Hepatitis B can be prevented by drugs like interferon?	198(52.51%)	144(38.19%)	35(9.28%)

DISCUSSION

Majority of the participants (73.48%) were male. Among those, 55.42% were between the ages of 26-35 years. Male to female ratio in the study was 3:1. Regarding educational status of subjects, 64.19% were under-graduates, 24.40% were graduates and 11.40% were post-graduates.

Regarding knowledge about Hepatitis B infection, most of the participants were having poor knowledge. Almost all the participants told that they have heard about hepatitis B. These results match with other studies regarding knowledge of hepatitis B. In a study conducted at Karachi, 98% adolescent responded that they know something about hepatitis B^{9,10,11}. In our study, 74% told that hepatitis B is the infection of liver. In a study done on patients

RESULTS

Educational status of participants

Education	Male	Female	Total
Under-graduate	171 (61.73%)	71 (71%)	242 (64.19%)
Graduate	71(25.63%)	21(21%)	92(24.40%)
Postgraduate	35(12.63%)	8(8%)	43(11.40%)

Income wise Distribution of Participants

Family income	Male	Female	Total
<Rs. 20,000 (Below average)	93 (33.57%)	29 (29%)	121 (32.09%)
Rs. 20,000-60,000 (Average)	154 (55.59%)	63 (63%)	208 (55.17%)
Rs.>60,000 (Above average)	30 (10.83%)	8 (8%)	48 (12.73%)

attending family medicine majority of participants told that hepatitis B infect the liver¹². Regarding hepatitis B transmission, 40.58% told that Hepatitis B is transmitted people get hepatitis B from transfusion of infectious blood and blood product and 43.70% told that it is transmitted through contaminated syringes and needles. Our study results were better than the knowledge of healthy population¹¹. In one study conducted on students, 89.3% students told that Hepatitis B is transmitted through unsterilized syringes and 92.2% students told that it can be transmitted through blood products. On the other hand, 82 % of non-biological sciences told that it can be transmitted through unsterilized syringes and 72.2% students told that it can be transmitted through blood products¹³. In one study conducted on general

population of Faisalabad, only 30.45% of participants told that Hepatitis B can be transmitted through contaminated blood. Surprisingly, 86.78% told that it can be transmitted through unsterilized instruments/injection¹⁴. In a study at Quetta, 37.9% told that it is transmitted through infected blood products¹¹. While in another study conducted at Nawabshah, only 5.8% patients told that Hepatitis B infection is blood borne¹⁵. In our study, 36.6 participants told that people get hepatitis B from traditional tattooing, ear piercing etc whereas 33.3% participants told that Hepatitis B is transmitted through blades and nose piercing¹¹. In our study 39.5% participants told that People get hepatitis B by sharing razors, toothbrushes of patients. In a study conducted on knowledge of barbers at Rawalpindi, Islamabad only 12.5% barbers knew that Hepatitis B could be transmitted through razor¹⁶. This lack of knowledge of barbers and general population is a major contributing factor towards Hepatitis B transmission. In our study 18.83% participants told that Hepatitis B can be transmitted through sexual contacts. In study conducted at Faisalabad 24.14% told that unsafe sex is also a cause of Hepatitis B transmission¹⁴. In another study, only 10.1% told that it is transmitted through unsafe sex¹¹. In a study in Nawabshah, 8.8% told that it can be transmitted through unsafe sex¹⁴. In our study, 23.60% told that people get hepatitis B from HBV mothers to babies at the time of delivery, while 12.46% told that it can be transmitted genetically. In other study, 24% participants told that Hepatitis B can be transmitted from mother to child¹¹. In our study there were many misconceptions regarding Hepatitis B as well e.g. 31.15% people told that people get hepatitis B by touching and shaking hand with the patient, 21.48% participants told that people get hepatitis B by sharing spoons or bowls for food, 11.14% participants told that people may get hepatitis B by eating food prepared by patient while 8.75% participants told that people get hepatitis B from sharing the papers and books of patient. In a study conducted at Karachi, 22% visitors of Hepatitis B awarenessmela, told that hand shaking is also a cause for the transmission of Hepatitis B¹⁷.

On further enquiry, 55.43% participants told that Hepatitis B can be prevented by vaccination. In a study 76% participants told that Vaccine is available¹¹. In other study done at Hyderabad, 42.14% women told that vaccine is available for Hepatitis B prevention¹⁸. In a study conducted on students, 45.6% of urban adolescent students told that vaccine is available for Hepatitis B¹⁹. Other studies revealed much better result for vaccination knowledge^{12,13}. It can also be seen that knowledge level was better between ages 31-40. In another

study, knowledge level was better among the students between the ages 18-27¹¹. Furthermore, like other studies¹¹, participants having higher education, were also having better understanding of hepatitis B. In addition to this, male and rich people were having a little bit higher knowledge regarding hepatitis B.

CONCLUSION

Knowledge regarding the transmission of hepatitis B was poor in participants of our study. Although some of participants, who had higher qualification, were having satisfactory knowledge. Similarly, many people were having wrong concept regarding modes of transmission of Hepatitis B.

SUGGESTIONS

Hepatitis B viral infection is an emerging health problem worldwide and a common infection in Pakistan. Awareness about the disease is necessary in the prevention and control of the disease

Following measure can be taken:

1. Awareness campaigns should be launched through media, pamphlets or conferences about HBV infection, its mode of transmission and its prevention.
2. Contact sessions comprising of counseling of patients and their attendants regarding Hepatitis B prevention and vaccination should be done at each and every OPD
3. Literature like posters containing pictures of Hepatitis B transmission should be made available at OPDs.
4. Hepatitis B should be made the part of curriculum for below secondary class students, so that they can have better awareness of the disease and disease can be prevented by primary prevention

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