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KNOWLEDGE OF PATIENTS ATTENDING FREE HEPATITIS CLINIC AT CIVIL HOSPITAL KARACHI ABOUT HEPATITIS 'B' AND 'C'

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ABSTRACT

OBJECTIVE: *To assess the awareness of patients suffering from hepatitis, relating to the modes of transmission, vaccination and treatment of hepatitis B & C.*
METHODS: *A close-ended questionnaire was administered to patients suffering from hepatitis, who were at the Chief Minister's Hepatitis Program for free therapy. Informed verbal consent was obtained. Questions were asked in native language and filled in by the medical students based on patient responses. Frequencies of responses were calculated and compared by gender.*
RESULTS: *A total of 195 patients' responses were recorded during the study period of two weeks. 81.0% understood that it could be transmitted through needle piercing, and 79.0% similarly felt that the disease can spread through sharing of razors. However, knowledge and coverage of vaccination for HBV was poor, with only 20.5% of the patients having been vaccinated, and 25.6% had any of their family members vaccinated. Only 14.4% of the patients correctly knew that there was an existing vaccine for HBV, whereas there was no vaccine for HCV. 70.8% knew that the disease could lead to cancer, and 71.3% thought that ascites could be another complication of the disease.*
CONCLUSION: *Patients seemed to have some general knowledge regarding transmission and complications of HBV and HCV, however steps need to be taken in the future to ensure better coverage of the vaccine. The public needs to be educated further with respect to spread and especially vaccines, or the patients suffering from HBV and HCV will continue to rise in the future.*

KEYWORDS Hepatitis, Awareness, Survey, hepatitis B, hepatitis C

INTRODUCTION:

Hepatitis has become one of the major health care problem of the world with about 170 million patients are chronically infected with hepatitis C (HCV) with 3-4 million new infections each year.[1] Worldwide, an estimated two billion people have been infected with the hepatitis B virus (HBV), and more than 350 million have chronic liver infections.[2] Pakistan is also facing the brunt of this disease and reported prevalence of HCV about 4-7% and that of HBV is about 3-4% by different surveys reported from country.[3-5] There are also reports of high frequency of hepatitis D (HDV) in certain parts of country.[6] The incidence of new cases of HBV is decreasing worldwide after universal vaccination.[7] Lack of education and awareness regarding its spread are the main factors contributing to this disease.[8] The spread of Hepatitis B and C is through blood products and bodily fluids, and knowledge of transmission among general public is poor.[9] If information and knowledge is provided to the public regarding spread of the disease and vaccine availability, only then can preventive measures be effective. Also, with the common practice of dependence on Hakim's and Faith Healers in our population, many patients go wrongly treated or untreated for the disease, potentially increasing the complications and mortality rate of the disease.[10] The public may not understand fully the complications and the threat this disease may pose.

Through this study, we hoped to understand the view of the patients suffering from HBV and HCV, and to be able to understand where there are deficiencies in the knowledge regarding Hepatitis. This will help to formulate strategies to increase awareness among the general public regarding this disease.

METHODS:

A close-ended questionnaire was made regarding the awareness of HBV and HCV. This questionnaire included questions regarding modes of transmission, preventive measure, treatment, and complications of the disease. Patients visiting the Out-Patient Department of the Hepatitis Clinic of Chief Minister Program at Civil Hospital Karachi and who were positive for Hepatitis B or C (based on HBsAg ELISA and anti-HCV ELISA) were included after informed consent. The three medical students questioned the patients in their native language, and answers were recorded by them based on the patient's responses. Data was collected over a period of 4 weeks. The data collected was entered into SPSS software and then analyzed. Mean of age was calculated and compared for gender by Student's t-Test. Frequencies of responses were calculated and compared on gender with chi-square test. P value of ? 0.05 was taken as significant.

RESULTS:

The survey was conducted amongst 200 people and 5 were incomplete therefore the data of 195 patients was analyzed. Out of the 195 patients, 126 (64.6%) were males and 69 (35.4%) were females. The mean age ± SD of the patients was 34.8 ± 11.1 years. The mean age amongst the males was 34 ± 11 years, and that of females was 36 ± 11.3 years.

Regarding the modes of transmission of Hepatitis B and C, 18.5% felt that the disease can be spread through talking with an infected person and 19% felt it could be spread through shaking of hands. Transmission through breast-feeding could occur in view of 48.2% of respondents, while 45.6% thought it could occur by kissing too. Transmission through marital relations could occur in opinion of 64.1%, while that through needle piercing by 81.0%, tattooing 74.9%, dental instruments 67.7%, mosquito bites 43.1%, and by coughing in 40.0% of respondents.

The patients were also questioned regarding the spread of Hepatitis B and C through sharing of common household materials. Regarding spread of the disease through sharing of eating utensils, 43.1% felt it was possible. Sharing of razors was accepted as a likely source of transmission with 79% of the patients, along with sharing of toothbrushes, accounting for 73.8%. Of all the 195 patients, 43.1% and 41% of the patients thought that the disease could also be transmitted through use of towels and clothes.

Patients were asked about awareness regarding vaccines of Hepatitis, 126 (64.6%) of the patients were under the impression that there was a vaccine available for Hepatitis C, whereas 72.8% were aware that there is a vaccine available for Hepatitis B. However, only 14.4% of the patients correctly knew that there was a vaccine for Hepatitis B but no vaccine for Hepatitis C. Of the patients who said that there was a vaccine for Hepatitis B, 88.8% of those patients felt that the vaccine was effective. Despite a majority having knowledge of the presence of a vaccine for Hepatitis B, only 20.5% of the patients had been vaccinated, and only 25.6% had any of their family members vaccinated. On the other hand, 97.9% of the patients thought that a lab test was necessary for diagnosis of Hepatitis B or C.

The patients coming to the OPD were also questioned regarding the complications that may occur due to Hepatitis B and C. Awareness of hepatic cancer as a complication of Hepatitis B and C accounted for 70.8% of the responses. Swelling of feet was perceived as a complication by 68.7%, and a high percentage, 71.3%, also felt that ascites (water in abdomen) could be a significant complication of Hepatitis B and C. Hematemesis (blood in vomit) and splenomegaly (enlargement of spleen) were seen as a possible consequence of the disease amongst 117 (60%) and 119 (61%) respectively. A minority of 7.2% felt that no significant complications accompany HBV and HCV.

Of the 195 Hepatitis patients questioned, 184 (94.4%) felt that there was effective treatment available for HBV and HCV. Majority of the patients (97.4%) were of the view that Allopathic doctors could provide them the treatment for the disease. Whereas, a good proportion of patients also felt, that Hakims (45.6%) and Homeopathic doctors (46.2%) had a cure for the disease. A significant number of people, 103 (52.8%) believed that faith healers could also provide them a cure. A lot of patients went to both Allopathic doctors and Faith healers. Of all the patients, 32.8% had previously visited a Hakim or Homeopathic doctor in the past.

DISCUSSION:

This study presented to us the awareness of Hepatitis B and C of its patients. A recent population based survey showed prevalence of HBV in Pakistan at 2.5% and that of HCV at 4.9%.[11] This classifies Pakistan as a low to intermediate prevalence country. It is vital our public is aware of its spread and effective preventive measures they could take to potentially reduce the incidence of this disease. From our data we understood that on an average, patients did have a general idea that Hepatitis is spread through blood contact. If people were not aware of that specificity, majority of the patients had an idea of the common modes of transmission, such as sharing needles (81%), razors (79%), dental instruments (67.7%), etc. On an average, the patients also understood that marital relations (64.1%) could be a method of transmission of the disease. However, still there were a lot of misunderstandings amongst the patients, with a significant number of patients thinking that the disease can be spread through mosquito bites (43.1%) and coughing (40%), although no scientific evidence has been found to this effect.[12] About half of our patients (48.2%) wrongly thought that it could spread via breast-feeding and this could result in denial of breast-feeding to the children born to suffering mothers and needs education on this point.[13] On an overview, the patients seemed to have a general awareness of the transmissibility of Hepatitis B and C, especially the common sources of infection, as stated in another such study performed in Pakistan on knowledge regarding Hepatitis.[14]

The vaccination for Hepatitis B has recently been introduced into the 'Expanded Program for Immunization' and 3 doses of the vaccine are given to newborns starting from birth along with the other vaccinations. However, the patients had very little knowledge of vaccinations available for Hepatitis. Most generally assumed that there would be a vaccine for Hepatitis, and continued to say that there was a vaccine for both HBV and HCV. This was in accordance with another study conducted in Karachi that showed that 70% of patients were aware of a vaccine for Hepatitis B and 60% thought that there was also a vaccine for Hepatitis C.[15] In our study, a minority (14.4%) correctly knew that a vaccine existed for Hepatitis B but not for Hepatitis C. Even though awareness about availability of vaccine for Hepatitis B was present in 78.2% of the surveyed; its application was poor as vaccination status of patients (20.5%) and their family members (25.6%) was low. The hepatitis B vaccination status in German population is reported at 22.3-29.6%.[16-17] A study from India amongst Health Care Workers also shows negligence with only 55.4% of Health Care Workers in tertiary hospitals having been vaccinated for HBV.[18] The reports from Pakistan show variability with one study reporting only 49% of Health Care Workers been vaccinated, while other reporting 86.0% vaccination.[19-20] This may show a pattern,

where people seem to be aware of an existing vaccine for HBV yet many are not vaccinated for it; which may be due to negligence on an individual level where people may feel they are not at risk, or poor coverage by vaccination centers and programs. This may be due to lack of easily accessible vaccination centers, or lack of importance given to such things among low-income strata due to other pressing problems.

Chronic Hepatitis, especially in patients with Hepatitis C can lead to significant complications involving different body systems arising due to the disease process and its therapy.[21-24] Our data showed that the patients were mostly aware of the complications of the disease, with 60% of the patients having knowledge of the possibility of each complication due to HBV and HCV. However, in a similar study performed in a Chinese community, over 60% were unaware that HBV could cause hepatocellular carinoma or cirrhosis.[25] Patients we questioned generally had awareness regarding complications through word of mouth, as the patients' knew a lot of other people who were suffering from complications of Hepatitis. Thus most patients did understand the severity of the disease, importance of their treatment.

The patients of HBV and HCV believed that there was effective treatment available for the disease and were hopeful for its cure, and 97.4% of patients that it was the allopathic doctors who could provide that. However, taking into account our culture and socio-cultural mentality, a significant number of patients felt that hakim's and homeopathic doctors had effective treatment of HBV and HCV, with 32.8% of them having previously visited them. An even larger percentage (52.8%) of the patients believed Faith Healers could remove them of their disease, however quite a few of these patients were going to both allopathic doctors and faith Healers. The data could suggest that many patients may go to hakims and homeopathic doctors, and only visit allopathic doctors when they feel that their condition may worsen. This may be a hindrance in the treatment of patients suffering from HBV and HCV, as patients continue to rely falsely on other methods that they feel may supposedly be effective treatment.

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REFERENCES:

1. World Health Organization. Hepatitis C. World Health Organization Fact Sheet No. 164. (Accessed August 29, 2009, at http://who.int/mediacentre/factsheets/fs164/en)
2. World Health Organization. Hepatitis B. World Health Organization Fact Sheet No. 204. (Accessed August 29, 2009, at http://who.int/mediacentre/factsheets/fs204/en)
3. Platt L, Vickerman P, Collumbien M, Hasan S, Lalji N, Mayhew S, et al. Prevalence of HIV, HCV and sexually transmitted infections among injecting drug users in Rawalpindi and Abbottabad, Pakistan: evidence for an emerging injection-related HIV epidemic. Sex Transm Infect 2009;85 Suppl 2:ii17-22.
4. Afridi S, Naeem M, Hussain A, Kakar N, Babar ME, Ahmad J. Prevalence of hepatitis C virus (HCV) genotypes in Balochistan. Mol Biol Rep 2009;36:1511-4.
5. Aziz S, Memon A, Tily HI, Rasheed K, Jehangir K, Quraishy MS. Prevalence of HIV, hepatitis B and C amongst health workers of Civil Hospital Karachi. J Pak Med Assoc 2006;56:S48-50.
6. Zuberi BF, Quraishy MS, Afsar S, Kazi LA, Memon AR, Qadeer R, et al. Frequency and comparative analysis of hapatitis D in petients seeking treatment for hepatitis B. J Coll Physicians Surg Pak 2006;16:581-4.
7. Pantazis KD, Elefsiniotis IS, Brokalaki H. New Data concerning the Epidemiology of Hepatitis B Virus Infection in Greece. Gastroenterol Res Pract 2008;2008:580341.
8. el Ayyat AA, Sayed HA, Abou Had AM. A KAP study among staff and student nurses about infection control in Theodor Bilharz Hospital. J Egypt Soc Parasitol 2000;30:511-22.
9. Pellicano R, De Angelis C, De Luca L, Smedile A, Berrutti M, Astegiano M, et al. Risk factors for HCV infection. Focus on ethnic and cultural characteristics. Minerva Gastroenterol Dietol 2009;55:159-62.
10. Jenner A, Scott A. Circulating beliefs, resilient metaphors and faith in biomedicine: hepatitis C patients and interferon combination therapy. Sociol Health Illn 2008;30:197-216.
11. Prevalence of Hepatitis B and C in General Population of Pakistan. [Powerpoint Presentation] (Accessed September 10, 2009, at www.pmdc.org.pk/Hep_Survey_data.ppt)
12. Ghoda MK, Shah RA. A prospective epidemiological study to see if mosquito bite could be responsible for spread of hepatitis B virus infection. Trop Gastroenterol 2005;26:29-30.
13. Lin HH, Kao JH, Hsu HY, Ni YH, Chang MH, Huang SC, et al. Absence of infection in breast-fed infants born to hepatitis C virus-infected mothers. J Pediatr 1995;126:589-91.
14. Zuberi BF, Zuberi FF, Vasvani A, Faisal N, Afsar S, Rehman J, et al. Appraisal of the knowledge of Internet users of Pakistan regarding hepatitis using on-line survey. J Ayub Med Coll Abbottabad 2008;20:91-3.
15. Khuwaja AK, Qureshi R, Fatmi Z. Knowledge about hepatitis B and C among patients attending family medicine clinics in Karachi. East Mediterr Health J 2002;8:787-93.
16. Schenkel K, Radun D, Bremer V, Bocter N, Hamouda O. Viral hepatitis in Germany: poor vaccination coverage and little knowledge about transmission in target groups. BMC Public Health 2008;8:132.
17. Ringwald J, Mertz I, Zimmermann R, Weisbach V, Rabe C, Strasser E, et al. Hepatitis B vaccination status among healthy adults in Germany. Health Policy 2006;79:306-12.
18. Sukriti, Pati NT, Sethi A, Agrawal K, Kumar GT, Kumar M, et al. Low levels of awareness, vaccine coverage, and the need for boosters among health care workers in tertiary care hospitals in India. J Gastroenterol Hepatol 2008;23:1710-5.
19. Nasir K, Khan KA, Kadri WM, Salim S, Tufail K, Sheikh HZ, et al. Hepatitis B vaccination among health care workers and students of a medical college. J Pak Med Assoc 2000;50:239-43.
20. Ali NS, Jamal K, Qureshi R. Hepatitis B vaccination status and identification of risk factors for hepatitis B in health care workers. J Coll Physicians Surg Pak 2005;15:257-60.
21. Pergam SA, Wang CC, Gardella CM, Sandison TG, Phipps WT, Hawes SE. Pregnancy complications associated with hepatitis C: data from a 2003-2005 Washington state birth cohort. Am J Obstet Gynecol 2008;199:38 e1-9.
22. Acharya JN, Pacheco VH. Neurologic complications of hepatitis C. Neurologist 2008;14:151-6.
23. Manns MP, Wedemeyer H, Cornberg M. Treating viral hepatitis C: efficacy, side effects, and complications. Gut 2006;55:1350-9.
24. Akay BN, Ekmekci P, Sanli H, Celik G, Bozdayi M. Cutaneous, pulmonary and hepatic sarcoidosis associated with autoimmune complications during interferon-alpha treatment for hepatitis C virus infection. J Eur Acad Dermatol Venereol 2006;20:442-5.
25. Cheung J, Lee TK, Teh CZ, Wang CY, Kwan WC, Yoshida EM. Cross-sectional study of hepatitis B awareness among Chinese and Southeast Asian Canadians in the Vancouver-Richmond community. Can J Gastroenterol 2005;19:245-9.