EFFECTIVENESS OF “MEDIA MEDIATED INFORMATION AND AWARENESS PROJECT OF HEPATITIS B” ON DIAGNOSIS, MONITORING AND TREATMENT OF HEPATITIS B

TUBA DAL1, MUSTAFA KEMAL ÇELEN2, SEVILAY ULAS3, YUSUF ÇELİK4
1Dicle University, Faculty of Medicine, Department of Microbiology and Clinical Microbiology, Diyarbakır, Turkey - 2Dicle University, Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology, Diyarbakır, Turkey - 3Sanliurfa Social Sciences Vocational School at Harran University, Sanliurfa, Turkey - 4Dicle University, Faculty of Medicine, Department of Biostatistics, Diyarbakır, Turkey

ABSTRACT

Background: Incidence of hepatitis B is 8-12% in Southeastern Anatolia Region of Turkey. In Diyarbakir, Batman, Siirt, Mardin, which are residential areas with a population of 2.2 million, 95000-144000 persons are suffering from this infectious disease. We aimed to increase the awareness of the public about Hepatitis B through the media, to monitor the impact of this disease on patients, and to determine prevention and treatment strategy.

Methods: In four cities, 12 television programs lasting about 60-90 minutes, have been broadcasted 60 days apart between 01.01.2010-31.12.2011. At the same time, in a local newspaper, which was read in the whole region, a corner of hepatitis B formed and different topics, opinions, problems, and wrong treatment methods were discussed in, one day a week.

Results: Admission of Diyarbakir patients to Dicle University Hospital was increased by 19% and Batman patients was increased by 23%. A significant difference (p <0.028) was observed in the number of patients admitted to the infectious diseases clinic for hepatitis B, between the years 2009-2011.

Conclusion: Continuous media programs, especially in areas with low levels of socioeconomic status will be effective in diagnosis of new cases, monitoring and treatment, preventing of disease, and preventing of the spread.

Key words: Hepatitis B, media mediated information, diagnosis, follow-up, prevention.

Received March 20, 2013; Accepted April 11, 2013

Introduction

Hepatitis B virus (HBV) infection is a major cause of morbidity and mortality worldwide. The World Health Organisation (WHO) has reported that ~ 2 billion people worldwide have been infected with Hepatitis B virus and that 350 million of these are chronically infected. The WHO estimated that 65 million of chronically infected patients will die from liver disease due to their HBV infection1-3. In adults ~ 30 % of HBV infections present with jaundice and hepatitis, 0.1-0.5 % of HBV infections progress to fulminant liver failure1-3. In addition Hepatitis B infection is the major risk factor for hepatocellular carcinoma (HCC). Hepatocellular carcinoma (HCC) is the fourth leading cause of cancer related death worldwide. In the year 2000, it was projected that there will be 430,000 deaths from HCC all over the world4-9.

In South-easter Anatolian in Turkey with more than 6.5 million population, Hepatitis B is a major public health problem, prevention of development, spread, and treatment monitoring of Hepatitis B is very important9. In spite of routine vaccination practices, improved hospital facilities, our people are still unconscious about Hepatitis B. For these reasons, with this study, we aimed to increase the awareness of the public about Hepatitis B through the media and monitor the impact on patients, and to determine prevention, treatment strategy in the light of our results.
Materials and methods

In this study effectiveness of a project named as “Media Mediated Information and Awareness Project of Hepatitis B” on diagnosis, monitoring and treatment of Hepatitis B was evaluated. In this study, in Diyarbakir, Batman, Siirt, Mardin 12 TV programs, lasting about 60-90 minutes, had been broadcasted 60 days apart between 01.01.2010-31.12.2010. A continuous counterpart atmosphere was created. At the same time, in a local newspaper, which was read in the whole region, a corner of hepatitis B formed and different topics, opinions, problems, and wrong treatment methods were discussed in one day a week for a year.

TV Programs in Diyarbakır

In Diyarbakır, a total of 12 TV programs had been broadcasted with the average period of one month. Five of these programs were live broadcast released in the morning on average 60 minutes. Four programs were held after main news bulletin with the name of “The Special Agenda”, the two programs held before the news bulletin under the title of “The Analysis”. Questions were asked via live phone connections and e-mails and the importance of hepatitis B infection, risks, and treatment were discussed.

TV Programs in Batman, Siirt, Mardin

A total of 12 TV programs had been broadcasted with the average period of one month. Four of these programs (50 minutes) were morning programs and they were in the form of a live broadcast. Eight programs was held under the title of "Health Program" and made before the main news bulletin. Questions were asked via live phone connections and e-mails and the importance of hepatitis B infection, risks, and treatment were discussed. In addition, two patients with chronic hepatitis B, which were under the treatment, were also invited to a program. Thus, outside the window of the physician, “Hepatitis B” was explained to the audience with the eyes of patients.

The newspaper Corner

In the newspaper “Diyarbakır Söz” which is a local newspaper has audiences in Southeastern Anatolia of Turkey, a total of 98 corner writings published the process of eleven months, two days a week (Monday and Thursday). Many topics such as definition of hepatitis B infection, progression, transmission routes, the relationship between cigarette, alcohol and nutrition and diet, therapy etc. were committed with questions from readers.

In this study to determine statistically significance of the increase in the number of patients between the years of 2009-2011, ANOVA test was used.

Results

All of the newspaper articles available at the web address www.diyarbakirsoz.com were clicked on a total of 159 718.

In this study, when we looked at the number of hepatitis B patients who visited to our outpatient clinic, we observed that there was an increase of 18% in Diyarbakır patients, 21% in Batman patients in January-June 2010 period (Figure I).

![Figure I: The number of Hepatitis B patients who visited to Dicle University Hospital Outpatient Clinics.](image)

![Figure II: Evaluation of the numbers of outpatient visits for Diyarbakır Hepatitis B patients on January-November 2009 period and January-November 2010 period on a monthly basis and cumulatively.](image)
hepatitis B patients were evaluated on a monthly basis and cumulatively. At the second phase of the project is being carried out effectively, an 19% increase in the patients from Diyarbakir and 23% from Batman were observed (Figure II, Figure III).

The number of naive patients admitted to our department showed an increase of 6.6% (Figure IV).

**Discussion**

The prevalence of HBV infection varies geographically. Areas are divided into three groups in the world as follows: areas of high (>8%), intermediate (2-8%) and low (<2%) endemicity for Hepatitis B. Overall, 45% of the global population lives in areas of high prevalence\(^5\). In low prevalence areas, HBV infection is primarily acquired in adult age group through sexual contact or injecting drug use. However in areas of high endemicity, it is most commonly acquired perinatally or in early childhood\(^1,2\). Turkey is an intermediate endemic area for hepatitis B. In Turkey overall prevalence of the hepatitis B surface antigen (HBsAg) which is a marker for chronic hepatitis B (CHB) infection, has been reported to be between 4.0% and 5.0% (6-8). However HBsAg prevalence varies by regions in Turkey. In a study evaluating a total of 339 studies with original data on the prevalence of hepatitis B surface antigen (HBsAg) in Turkey, estimated overall population prevalence of HBV was 4.57, and total number of CHB cases was 3.3 million (6). According to the records of Turk-Hep-Net project which is a centralized online patient registry program and includes real-life cohort of HBV patients and is supported by Viral Hepatitis Society, the vast majority of Turkey’s hepatitis cases live in Southeastern Anatolia (30%). Southeastern Anatolia Region has an area of 75.358 km\(^2\) and more than 6.5 million people live in this\(^9\).

Diyarbakir, Batman, Siirt, and Mardin are provinces located in the South-eastern Anatolian with more than 2 million population\(^8\). The most of the people of this region live in rural areas. For example in Diyarbakir, human population consists of 40% 0-15 years old children, 54% 15-65, and remaining 6% >65 age group. Half of these populations live in the rural regions. In South-eastern Anatolian the majority of families are crowded and close contact is frequent between family members\(^9,10\). In spite of routine vaccination practices carried out by the Ministry of Health and improving hospital facilities, our people are still unconscious about Hepatitis B and Hepatitis B is still going to be a problem in South Eastern Anatolia.

As known, the mass media plays a importance role in human life. Most of people spend their time on TV, radio, and internet, currently. Mass media tools are the most effective ways to reach people today. Of course, experts in the field must do it. For this reason, in our study, television programs, publications and other means of communication were broadcasted by the experts of infectious diseases and clinical microbiology. With “Media Mediated Information and Awareness Project of Hepatitis B”, we believe that we contributed to raising awareness of hepatitis in the public and we also contributed to reduce the incidence of cancer with “Media Mediated Information and Awareness Project of Hepatitis B”.

In our study we found that there was an increase by 18% in the number of Diyarbakir Hepatitis B patients who visited to our outpatient clinic, 21% in Batman patients in January-June 2010 period. In addition at the second phase of the project being carried out effectively, an 19% increase in the patients from Diyarbakir and 23%
from Batman were observed. The number of patients admitted to our department and was treated as naive showed an increase of 6.6%. These results showed that social media has a positive effect on hepatitis B awareness.

In the literature, there is no study evaluating the impact of media on the awareness of hepatitis B patients. Therefore we thought that our study is valuable.

In conclusion, as a result the activities of “Public Information and Awareness” through written and visual media, admission of Hepatitis B patients to Dicle University Hospital, Clinic of Infectious Diseases was increased. Effectivity of media programs on raising awareness of the people with hepatitis B disease is undeniable. Our study revealed that continuous media programs, especially in areas with low levels of socioeconomic status will be effective in diagnosis of new cases, monitoring and treatment. Creating awareness in order to diagnosis of patients with undiagnosed hepatitis B in four cities was the first leg of the project. If the media is used correctly, it is a useful tool to increase the awareness of the public for health.

References


