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The study of prevalence of hepatitis B surface antigen in a tertiary care hospital in South India

R. Shyamala and Janardhan Rao

Department of Microbiology, Bhaskar Medical College, Yenkapally village, Moinabad Mandal, Rangareddy District

ABSTRACT

To determine the prevalence of Hepatitis B surface antigen (HBsAg) in South Indian population. The study was conducted at Bhaskar Medical College, RangaReddy District, India during January 2012 to December 2012, including 1980 patients. All of them were screened for HBsAg. Of the total 1980 patients, 21 were found to be positive for HBsAg (1.06%). Hepatitis B infection is highly infectious. It is mandatory that all the Surgical patients, antenatal women and High-risk patients should be screened for HBsAg and appropriately managed.

Keywords: HBsAg, HBV, High-risk patients

INTRODUCTION

Type B hepatitis is the most widespread and the most important type of viral hepatitis. More than a third of the world's population is estimated to have been infected by the hepatitis B virus (HBV). About a quarter of them become HBV carriers. A quarter of them become HBV carriers.

A quarter of these develop serious liver disease, including chronic hepatitis, cirrhosis and primary hepatic cancer. As there is an effective vaccine against HBV, hepatocellular carcinoma becomes the only human cancer which is vaccine-preventable. The WHO estimates that HBV infection causes more than a million deaths a year worldwide[1].

The discovery of HBV is as following. In 1965, Blumberg, studying human serum lipoprotein allotypes, observed in the serum of an Australian aborigine, a new antigen which gave a clearly defined line of precipitation with sera from two hemophiliacs who had received multiple blood transfusions. This was named the Australia antigen. By 1968 the 'Australia antigen' was found to be associated with serum hepatitis. It was subsequently shown to be the surface component of HBV. Therefore the name Australia antigen was changed to hepatitis B surface antigen (HBs Ag).[1] India has intermediate endemicity of HBV infection, with population prevalence rate of around 4% [2].

MATERIALS AND METHODS

The study was conducted at Bhaskar Medical College, RangaReddy District, India during January 2012 to December 2012, including 1980 patients. All of them were screened for HBsAg. Of the total 1980 patients, 21 were found to be positive for HBsAg (1.06%). Hepatitis B infection is highly infectious. It is mandatory that all the

Surgical patients, antenatal women and High-risk patients should be screened for HBsAg and appropriately managed.

Informed consent of all the 1980 patients was taken and were screened for hepatitis infection by Rapid Immuno Chromatographic Technique. Those found to be positive were confirmed by ELISA(Erba Diagnostics, Mannheim, Germany).

RESULTS

The study was conducted at Bhaskar Medical College, RangaReddy District, India during January 2012 to December 2012, including 1980 patients. All of them were screened for HBsAg. Of the total 1980 patients, 21 were found to be positive for HBsAg (1.06%). Hepatitis B infection is highly infectious. .

DISCUSSION

In a study by Chatterjee et al, the prevalence of HBsAg positivity in antenatal women ranged from 0.4% to 4.6% in India with overall mean prevalence of 1.09% and weighted prevalence 0.8%. [3] Prevalence of HBsAg in pregnant women in Mexico was 1.65%, in the Northern part of Kerala, South India, 0.21%. [4], 0.61% in a similar study in south India [5], 6.67% in Nigeria. [6] The prevalence of Hepatitis B varies from country to country and there is a wide variation in the prevalence in different regions of our country. The highest prevalence was reported by Chatterjee et al in Bangalore, India, 4.6%. [3]

CONCLUSION

It is mandatory that all patients coming for surgical treatment, all antenatal women, all high risk patients and blood donors are screened for HBs Ag infection. This is because HBV is very highly infectious, far more than HIV. Even as little as 0.00001 ml of blood can be infectious. An effective vaccine is available and the only certain method to prevent HBV infection is universal immunization.

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