

HBsAg AND SEXUALLY TRANSMITTED DISEASES

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HBsAg was studied in 50 patients of STD's and promiscuous persons. In 10.52% cases it was positive. Vaccination against Hepatitis-B was recommended in promiscuous individuals.

Key Words : Hepatitis-B, Promiscuous

Introduction

Besides the first, second and third generation of sexually transmitted diseases there are other diseases which may also be transmitted heterosexually or homosexually. Hepatitis B is one of these commonest serious viral infections which can lead to chronic active hepatitis, cirrhosis and hepatocellular carcinoma. Surface of hepatitis B virion is Australia antigen and is termed hepatitis B surface antigen (HBsAg). It is associated with viral hepatitis B and its presence in body fluids like semen, vaginal secretions and saliva, demonstrates its transmission not only via blood but also by sexual contact. We have conducted this study in patients attending STD clinic and patients having exposure with multiple partners.

Materials and Methods

This study was conducted on 50 patients attending the sexually transmitted disease clinic of Rajindra Hospital, Patiala. Those patients having extramarital contacts or history of sexual exposure to more than one partner and presenting with one or more clinical signs/symptoms of the main sexually transmitted diseases were included in this study. Detailed history was taken with stress on age of the patients, number and nature of contacts or any deviation from normal sexual

behaviour and a thorough clinical examination was done. Patients having any signs of jaundice or enlarged liver or giving history of IV drug abuse or with previous history of jaundice or blood transfusion were not included in the study. In addition to routine haematological investigations, complete urine examination, VDRL test was also done and vaginal discharge for *T vaginalis* and *Candida albicans* and urethral/cervical smear for *N gonorrhoeae* were also examined.

Detection of HBsAg was done by the latex agglutination test (Span Diagnostics, India).

Interpretation of results was done as follows:

1. HBsAg negative: No agglutination
2. HBsAg positive: Visible agglutination within 5 minutes.

Results

Out of 50 patients, 70% were males and 30% were females. 80% of the patients were in the sexually active age group of 15-34 years. Maximum number (22%) of the cases were of genitoulcerative diseases followed by condylomata acuminata (18%), syphilis (16%), gonorrhoea (14%), herpes progeneralis (10%) and chancroid (8%), while rest of the STDs constituted a small percentage of cases. None of the patients in our study had homosexual contact. 60% of the patients had more than 8 partners while

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20% each had 5-8 and 1-4 partners.

HBsAg positivity was found in 10% of cases. Out of these positive cases 80% were males and 20% were females and 80% of these cases were in the age group of 25-34 years while only 20% were in between the age of 35-44 years. None of these cases were below 25 years or above 45 years of age. 60% of these cases had sex with more than 8 partners while 20% of each had 5-8 and 1-4 partners.

VDRL test was positive in 38% of the cases and out of these 68.4% cases were males and 31.6% were females. In VDRL positive cases 10.52% were HBsAg positive. Out of the remaining VDRL negative cases only 3.22% were positive for HBsAg.

Discussion

Overall prevalence of HBsAg in the present study was 10%. Among the Spanish prostitutes attending STD clinic, HBsAg positivity was found in 10%.¹ In other studies of foreign countries HBsAg positivity was found to be 4.1%² and 2.6%³ while in other Indian studies, it varied from 6.03% to 17.2%.⁴⁻⁶

Maximum number of patients were in the sexually active age group of 15-34 years and it was found that the chances of acquiring HBsAg infection are directly proportional to the number of sexual contacts. Another study⁷ also indicates that maximum positivity of HBsAg is found in second and third decades. The fact that promiscuity leads to likelihood of acquiring hepatitis B infection has been reinforced by

other studies.^{1,8} We observed that promiscuous males are more likely to be HBsAg positive than females. Other studies^{4,9} also corroborate this fact. Promiscuity carries a high risk of acquiring STD and hepatitis B is no exception. To prevent this hepatitis we must do the screening for HBsAg. Vaccination against it should be done in high risk patients attending STD clinics.

References

1. Cabellaro LR, et al. Prevalence of hepatitis B and risk factors of hepatitis B in spanish prostitutes. *Epidem Infect* 1987; 99:767-77.
2. Szmunes W, et al. Epidemiologic patterns of viral hepatitis in Eastern Europe in the light of recent findings concerning the serum hepatitis antigen. *J Infect Dis* 1971; 123:200-12.
3. Fulford KWM, Dane DS, Catterall RD, et al. Australia (hepatitis-associated) antigen in patients attending a venereal clinic. *Br Med J* 1973; 2:455-6.
4. Kumar AG, Lakshmi N. Prevalence of hepatitis B virus surface antigen (HBsAg) among patients attending STD clinic and prostitutes. *Ind J Sex Transm Dis* 1989; 10:3-5.
5. Singh V, Kumar B, et al. Prevalence of hepatitis B virus and delta infection in patients with sexually transmitted diseases in North India. *Ind J Sex Transm Dis* 1994; 15:13-4.
6. Gopi T, Bhatia VN, Chakraborty S. HBsAg and VDRL positivity in STD and leprosy patients. *Ind J Sex Transm Dis* 1995; 16:1-5.
7. Frosner GG, Buchholz HM, Gerth HJ. Prevalence of hepatitis B antibody in prostitutes. *Am J Epidemiol* 1975; 102:241-9.
8. Altger MJ, Abitone J, Weisfur, et al. HBV transmission between heterosexuals. *JAMA* 1989; 262:1201-5.
9. Papaevangelous G, Roumeliotons-Karayannis A, Tassopoulos N, et al. Source of infection due to hepatitis B virus in Greece. *J Infect Dis* 1983; 147:987-9.