



Editorial

Vertical Transmission Status of Hepatitis B Virus in Asymptomatic Carriers in Bangladesh – Experience from a Tertiary Centre

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Hepatitis B virus (HBV) is a major public health problem and cause of infectious disease mortality world wide. Approximately 2 billion people one third of the world's population have serologic evidence of past or present HBV infection and 350 million people are chronically infected. HBV is transmitted by per-cutaneous and mucous membrane exposures to infectious blood and body fluids that contain blood. Per-cutaneous exposures that have resulted in HBV transmission include transfusion of blood or blood products¹, injection and related procedures,² illegal injection use³ and needle sticks or other injuries in hospital personnel⁴. In addition, occasional out breaks have been associated with tattooing and acupuncture⁵. Because HBV is stable on environmental surfaces for ≥ 7 days⁶, indirect inoculation of HBV can also occur via inanimate objects. Perinatal and sexual transmission of HBV usually results from mucous membrane exposures to infectious blood or serum derived body fluids⁷. The risk of perinatal HBV transmission has been well described. The risk is greatest for infants born to women who are HBeAg- positive and ranges from 70-90% at 6 months of age; about 90% of these children remain chronically infected⁸. The risk of perinatal infection among infants born to HBeAg- negative mothers ranges from 10 to 40%, with 40- 70% of these infected infants remaining chronically infected⁸⁻⁹. Children born to HBsAg positive mothers who do not become infected during perinatal period remain at high risk of infection during early childhood¹⁰.

Perinatal transmission results in increase number of HBV carriers. In our study all of the cases were asymptomatic carriers. Most of them were young and active force in our society. The most important fact regarding HBV infection is that there are many asymptomatic cases who will possibly develop liver cirrhosis and hepatocellular carcinoma themselves in later life and who also become a source of HBV infection to other people. The time of development of chronic HBV infection related to infancy and infection during later childhood or adulthood usually results in acute or sub- clinical disease without chronicity except that patients are immune compromised.

In our study the perinatal transmission rate is 43.33%. This kind of study was done in India¹¹, Pakistan¹², Japan¹³, Iran¹⁴ They all show that perinatal transmission is the important route of HBV transmission. Their studies were mostly on paediatric age group. But our study was in the adolescent and adult age group. It is obvious that majority of infection occurs in children and hence the majority of chronic carriers in our population result from vertical transmission. In order to decrease the significant morbidity and mortality in later life associated with HBV infection, Children are the most important group to intervene.

As vertical infection is responsible for majority of infection it may sufficient to screen all pregnant women and immunize high risk infants. High risk strategy involves screening all the pregnant women for HBsAg and immunizing infants of

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only those mothers who are positive for it. There fore keeping in mind that vertical transmission is the most important mode of infection HBV in children, it is inferred that hepatitis B immunization should begin at birth to have a greater impact. Bangladesh Govt. has already integrated HBV vaccination in EPI with a view prevent HBV transmission. But screening of HBs Ag should be done in the priority basis in all the pregnant women.

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