BioSpectrum the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

The rising concern of Hepatitis B

23 February 2018 | Features

If routine infant HBV vaccination with 3 doses is given to the population then 68% of HBV related deaths could be prevented.



Hepatitis B virus {HBV} infection recognized nearly 40 years ago with the identification of the Australia antigen, remains a global health problem. It is estimated that 2 million people worldwide have been infected with HBV. 350 million are chronically infected and 50 million new cases are diagnosed annually. HBV remains the leading cause of cirrhosis {destruction of the liver} and Hepatocellular carcinoma {HCC}. Of those chronically infected, 15% to 25% will die of sequale related to HBV infection. If routine infant HBV vaccination with 3 doses is given to the population then 68% of HBV related deaths could be prevented.

The virus is transmitted via various routes. HBV is ubiquitous in body fluids including blood saliva, sweat, breast milk, tears, vaginal secretions, semen and menstrual blood. Viral transmission can be mother to child {vertical or perinatal transmission}and by percutaneous of mucosa exposure to infectious bodily fluids. After any person who is infected by any one of the following mentioned above routes of transmission, the incubation period of the virus ranges from 45-160days {mean 120 days}. There are various tests available to check if ones infected or not. They are basically blood tests which shall be mentioned later.In areas of low prevalence of HBV infection the transmission is more commonly via unprotected sexual intercourse, IV drug abusers or occupational exposure to blood or blood products like our paramedical workers. It is important to safeguard ourselves in the form of having simple hand gloves are a good way to protect ourselves in times of calamity. But in underdeveloped countries reuse of medical instruments, contamination of multiple dosing vials and reuse of disposable needles remains a risk of infection.

Now in most hospitals in Mumbai follow a very strict guidelines. Disposable needles are only used and they are disposed off also according to infection control guidelines. Contamination of dialysis equipment is also a source of transmission if isolation of infected patients and strict adherence to infection control measures are not practiced. Percutaneous routes of exposure include transmission of blood or blood products, contaminated health related paraphenelia or needle sticks and IV drug users. Less commonly tatooing which has now become a fashion statement and accupuncture have also been implicated in HBV transmission. We commonly see barbers on the road side shaving and cutting hair. It is a very important source in our economic background. The low socioeconomic people are affected by this and the virus is transmitted through contaminated blades and scissors. Hence a check has to be done or then one must insist on changing the blade in front of your own eyes.

In areas of high endemicity of HBV, vertical transmission remains to be the predominant mode of transmission. Pregnant woman in the third trimester or in the post partum period will more likely lead to infection of the infant. Once infected it can lead to acute hepatitis b or then progress to chronic Hepatitis B. Chronic Hepatitis B is the more dangerous one and that can lead to Cirrhosis [destruction of liver] and then to cancer of the liver. Once infected the body clears the virus by average 6 months on its own. If the virus still persists then one can say that the individual is a chronic Hepatitis B infected person. In acute Hepatitis B one can develop symptoms like yellow discoloration of eyes [jaundice], generalized weakness, loss of appetite / weight , nausea, vomiting, pain in abdomen and fever. If severe then bleeding disorders can be seen .If very severe then the person can become comatosed but this is not very common. In chronic hepatitis B infected people, they can have liver related complications like vomiting of blood [haematemesis], black tarry stools [malena] ,loss of conciousness {hepatic encephalopathy}, fever[because of low immunity] ,distension of abdomen {ascites}, swelling of the legs [pedal edema].

If the individual consumes alcohol then the liver damage is accelerated with concurrent Hepatitis B virus infection. If the person has co-infection of HIV then the clearance of the virus is delayed. The treatment for acute Hepatitis B infection is

mainly supportive cause acute Hepatitis B resolves without chronic sequale.

There are routine blood tests available and can be done in any reputed laboratory. There are specialized test also available and have to be done if the person is chronic infected.

There is treatment for Hepatitis B chronic infection . There are various drugs available. They are Lamuvidine, adefovir, telbuvidine and entecavir which are available in India..These are tablets and have to be taken according to the dosing schedules. There are injections also available, Inj. Interferon [ALPHA 2A] & [ALPHA 2B], Plain Interferon and pegylated interferon{40kDa and 12kDa}therapy. Interferon therapy treatment remains the benchmark of antiviral treatment with durable ,sustained response to a 12 month course in about 15-25 % of patients. Now liver transplant is also an option for people with cirrhosis of liver and have liver related complications. Liver transplant is being done in Mumbai.

If there is accidental exposure to the virus then injection immunoglobulin is recommended. There are vaccines which are available and it is adviced to all so that one is protected.

Hepatitis B virus infection is a potent killer, right information and right steps towards prevention can put this deadly virus in our grips.

(Dr. Prasanna S Shah, Gastroenterologist, Jaslok Hospital)