

Hepatitis B in India: A Review of Disease Epidemiology

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Hepatitis B in India: A Review of Disease Epidemiology

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Hepatitis B is an illness well defined by clinical and virological studies. The World Health Organization (WHO) has considered it as a disease of public health importance. It has recommended universal immunization against it by including a vaccine into Expanded Program for Immunization (EPI) schedule for children(1). However, the Government of India has not yet recommended the universal use of this vaccine. The Indian Academy of Pediatrics (IAP), the premier professional organization representing pediatricians has recommended its use in its immunization schedule(2). Prescription of this vaccine has increased dramatically over the last few years, the vaccine being offered to those who can afford it. In fact, many private schools are organizing immunization programs against Hepatitis B(3).

Universal immunization is usually recommended for any disease that causes significant morbidity; both in terms of numbers as well as in terms of the severity of the consequences of the infection including mortality, provided a safe and effective vaccine is available. Hepatitis B is believed to satisfy both these criteria with an estimated prevalence in India between 3% to 7% and its sequelae of chronic hepatitis, cirrhosis and hepatic carcinoma. The goal of immunization program against hepatitis B is to reduce the incidence of and possibly eliminate hepatocellular carcinoma and chronic liver disease by reducing the number of HBV carriers in the population. This effect can possibly be evaluated only after a few decades have passed. This goal is clearly different from that of the other vaccines included in the EPI, which reduce the childhood mortality and morbidity.

To judge the utility of HBV vaccination program, it is important to have the baseline data about the extent of the problem, the incidence and prevalence of various long-term complications of chronic HBV infection. Since the implementation of universal immunization requires a significant commitment in terms of resources, we have reviewed those aspects of epidemiology of hepatitis B infection which are essential to decision making about such immunization strategy. Therefore, we have specifically looked at the (i) prevalence, (ii) natural history of HBV infection and (iii) vaccine effectiveness.

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