FEDERATION OF OBSTETRIC AND GYNAECOLOGICAL SOCIETIES OF INDIA
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FOGSI FOR ALL, ALWAYS
DHEERA
STOP VIOLENCE AGAINST WOMEN

HEPATITIS B IN WOMEN

All we want to know

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Chapter 1

Hepatitis B Virus Infection in Women

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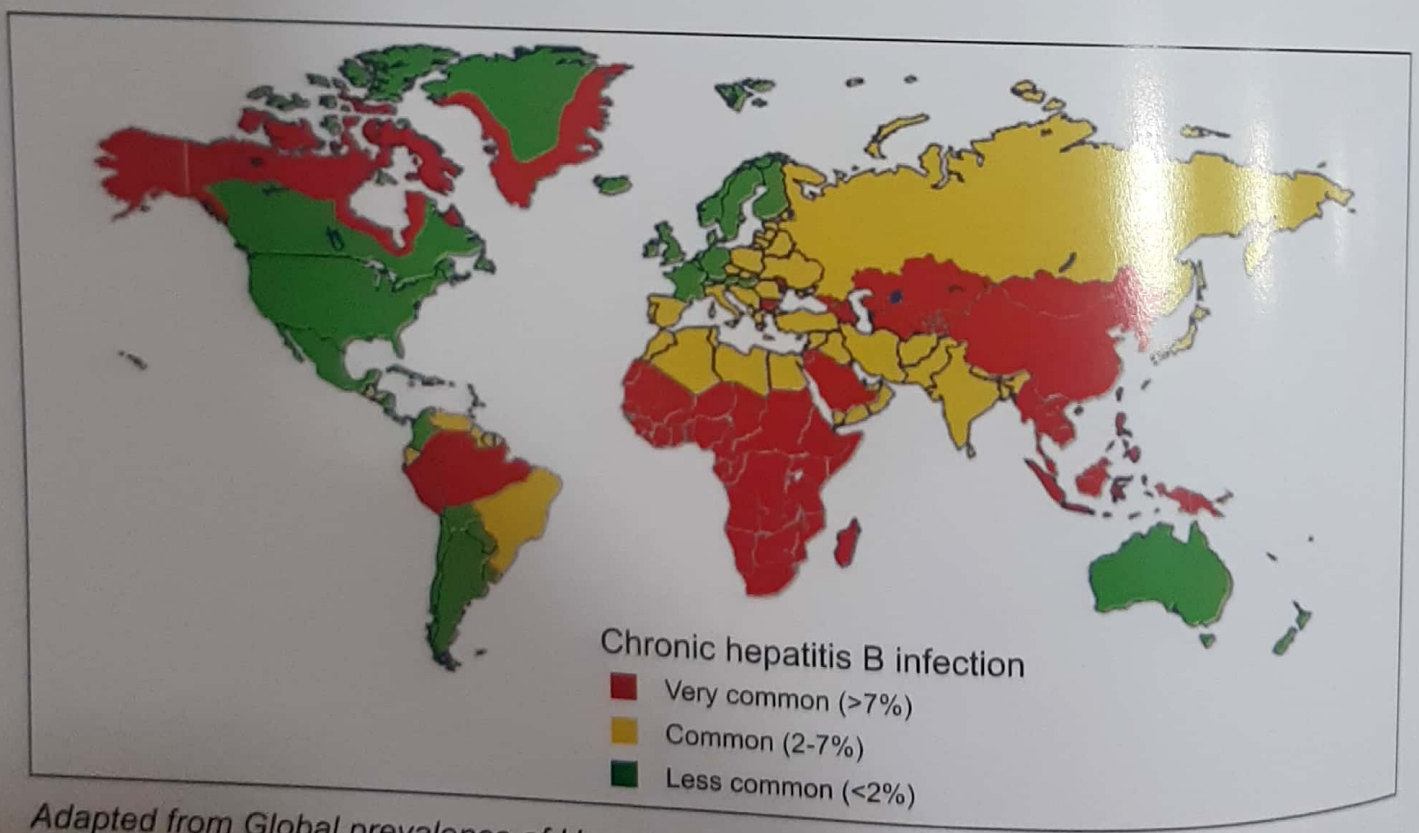
Burden of the disease and epidemiology of Hepatitis B:

Viral hepatitis is one of the more commonly diagnosed viral infections in pregnancy. Six subtypes of the hepatitis virus have been identified (A, B, C, D, E, and G). A viral infection caused by Hepatitis B virus that affects the liver. Spreading through exposure to virus by blood, semen, saliva, or vaginal fluids, the virus is transmitted through unsafe sexual practises and from an infected mother to her child. Symptoms include loss of appetite, nausea, body aches and fever progressing to jaundice.

Viral Hepatitis is one of the leading cause of death like HIV and Tuberculosis especially among low and middle income countries (LMIC's).[1] As per estimates by World Health Organisation(WHO), approximately 2 billion people are living with Hepatitis B infection worldwide with 1.5 million new infections occurring every year and more than 820,000 people die due to complications like cirrhosis and liver cancer every year worldwide .The highest burden of Hepatitis B infection is in Western pacific and African regions. In South East Asia region(SEARO) more than 30 % of the population is infected with Hepatitis B. India is categorised as country with intermediate endemic zone with sero-prevalence rates 3-4.2%.[2]



Adapted from Global prevalence of Hepatitis B - (Hepatitis B Network 2021.)

Globally the prevalence of Hepatitis B infection among pregnant women ranges between 1.5% - 10.8%; In India 0.9-7.8%, the rates vary geographically as per the detection rates in those areas.[3]

Source of spread

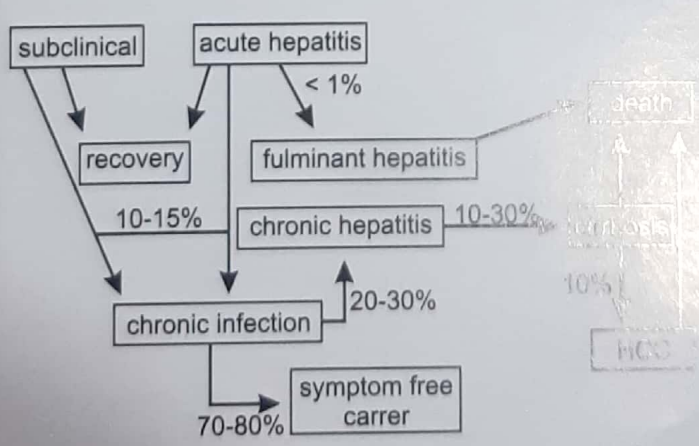
1. Blood and blood products.
2. Body fluids :
   - Semen.
   - Vaginal secretions.
   - Saliva.
   - Open sore.
   - Breast milk.

Risk groups and Risk behaviours:

- Surgeons are 50 times at risk of getting infected with HBV compared to general population
- Health care workers
- Blood transfusion recipients
- Laboratory persons
- Homosexuals (male)
- IV drug abusers
- Commercial sex workers
- Patients who receive dialysis, organ transplants and immune compromised. These groups need regular screening and vaccination.[4]

The outcome of HBV infection

1. There may be asymptomatic carriers who are without the obvious disease.
2. The patient may have acute hepatitis.
3. The patient may go into the chronic stage as chronic hepatitis.
   - Chronic hepatitis may be non-progressive.
   - Chronic hepatitis may be progressive with the development of cirrhosis.
4. The patient may develop fulminant hepatitis with massive necrosis.



Adapted from Similarities and Differences in Hepatitis B and C Virus Induced Hepatocarcinogenesis (Pathology & Oncology Research)

Chronic hepatitis B: Most of the Chronic Hepatitis B (CHB) burden is contributed by perinatal transmission or early exposure in infancy. Infection in the adult population is associated with only a 5% rate of progression to chronic disease, with majority having complete resolution of the infection. The chronic HBV carrier state usually can be predicted by HBsAg seropositivity for 20 weeks or longer. However Infants exposed to HBV progress to a chronic infection in 90% of cases, whereas toddlers and young children clear the virus in only 50% of cases. Prior to the era of postnatal passive and active immunization, the rates of perinatal transmission for women with HBeAg (+) and HBeAg (-) CHB were 70-90 and 25%, respectively.

Co infection with other viral infections occur frequently in areas with high endemicity of Hepatitis B, approximately

- 10-15% are co infected with HCV
- 5% with HDV
- 10% HIV people are co infected with Hep-B .

HBV infection also cause major economic burden for the countries as the life years lost due to morbidity and mortality is high and accounts for 10% of the liver transplants [4]

Screening for Hepatitis B: Screening of all pregnant women for HBs Ag to identify infants requiring post exposure prophylaxis has been recommended. Approximately 21,000 HBs Ag-positive women give birth annually.[5] Without post exposure prophylaxis to prevent perinatal HBV infection, it is estimated that HBV transmission would occur in 36% of infants born to HBs Ag-positive women.[6]

Reporting of Hepatitis infections and CHB: Prompt reporting of Hepatitis B infections especially newly acquired (Hbs Ag +) cases is an important measure in prevention and containment of the spread, as it will initiate early post exposure treatment and vaccination to all contacts. Reporting of needle stick injuries in health care workers along with prevention of Reuse and Recapping of needle/ syringes is mandatory under National viral hepatitis control programme (NVHP). Guidelines are regarding diagnosis and reporting of Hepatitis B infections by laboratories is also mandatory.

Although Hepatitis B outbreaks are rare, cluster of cases can occur in risk groups and health care settings, which need prompt reporting and notification. Hepatitis B is a notifiable disease globally and Nationally under IDSP (integrated disease surveillance programme). All countries are encouraged to maintain registries of persons with HBsAg-positive laboratory results to facilitate reporting and their contacts to be screened, vaccinated, linked to care, and offered post exposure prophylaxis, as appropriate.[7]

Disease reduction goals: In 2016 , world health assembly adopted the first global health sector strategy for Viral Hepatitis 2016-21,the strategy highlights Universal health coverage with sustainable development goals (SDG) of eliminating Viral Hepatitis as public health problem.

This aims at reducing new cases of Chronic HBV and HCV infections by 90% and reducing deaths due to viral hepatitis by 65% by 2030(4). In line with the Government of India's deep commitment towards elimination of viral hepatitis, the "National Action Plan - Viral Hepatitis" was launched by Union Minister of State, Health & Family Welfare in 2019. The goals of the program are to combat hepatitis and achieve countrywide elimination of Hepatitis C by 2030, & achieve significant reduction in the infected population, morbidity and mortality associated with Hepatitis B and C viz. Cirrhosis and hepato-cellular carcinoma (liver cancer) and Hepatitis A and E. Focus under the program is also on screening of pregnant women for hepatitis B, in places where institutional delivery is less than 80%, to ensure provision of birth dose hepatitis B vaccination and Hepatitis B immunoglobulin, if required.[8]

Awareness of HBV : Awareness about HBV infection and its routes of transmission is low. So under NVHCP programme, enhancing awareness among general population, mainly in high risk groups is critical. HBV screening, vaccination of newborns, infants and health care workers, training and capacity building of healthcare population are some of the measures to build awareness.

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