

# The Knowledge, Attitude and Practices regarding HBV Infection of Married Women in the Reproductive Age Group living in Cantonment Area, Sunjawan, Jammu

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## Abstract

The present study was conducted to know the knowledge, attitude and practices of 300 married women in the reproductive age group living in the cantonment area Sunjawan, Jammu regarding HBV infection. Only 20% of the women were found aware of the mode of transmission of HBV. However, 50% of the women were having the misconceptions regarding mode of transmission of HBV. 4% of women, 30% of children up to 5 years and 15% of children above 5 years were fully immunized with hepatitis B vaccine. 80% of children up to 5 years and 75% of children above 5 years were fully immunized as per universal immunization programme. Hence, the results of the study clearly indicated the low immunization rate with vaccine against HBV than that under universal immunization programme and further potentiated the need for implementation of the recommendations in 9th five year plan of India regarding introduction of immunization against HBV in universal immunization programme at the earliest .

## Key words

KAP, HBV, Immunization, Perinatal transmission

## Introduction

Hepatitis-B (also known as 'serum' hepatitis) is an acute systemic infection with major pathology in the liver caused by (HBV) hepatitis-B virus (1). Unlike in developed and several developing countries, hepatitis-B virus remains a major public health challenge in India (2). Its prevalence in India and many other parts of the Asia pacific region is quite high. More than 10,00,000 Indian children run a life time risk of becoming chronic carrier and about 1,00,000 Indians die from HBV complications annually (1). The life time risk of

complications such as chronic hepatitis, cirrhosis and hepato-cellular carcinoma in subjects with chronic HBV infection is a major concern for health care personnel today (3). However, the outcome of HBV infection depends on the result of dynamic interaction between the virus, hepatocytes and host response.

The HBV is present in high concentration in blood, serum, serus exudates, saliva, semen, vaginal fluid and most body fluids (1). However, perinatal transmission is believed to be the most important mode in regions with

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intermediate and high HBV prevalence rates; in contrast the sexual transmission is the predominant route among adolescents in low prevalence and developed countries (4). Moreover, most of the babies born to mothers who are carriers of HBV also become carriers. About 25% of the babies who are infected with HBV subsequently develop severe chronic liver disease or even liver cancer (1). While keeping in view the magnitude of problem among children, it seems to be important to focus on the population of women of child bearing age and educate them regarding magnitude of the problem and its prevention. Moreover, there is a need for epidemiological studies to assess the knowledge, attitude and practices regarding HBV infection among women of child bearing age; so that steps would be taken to spread right knowledge among the target population and to efficiently tackle with the current problem. We conducted the present study to know the knowledge, attitude and practices of married women of the reproductive age group living in the cantonment area Sunjawan, Jammu regarding HBV infection.

### Material and Methods

The study was carried out in the cantonment area Sunjawan, Jammu with an estimated population of 5000. The study population consisted of 300 married women of the reproductive age group. Women attending medical out patient department of the polyclinic Sunjawan w.e.f. Oct. 03 to Dec. 03 were randomly selected for the study (table 1). The females were interviewed in their local language only after taking well informed consent. The questionnaire contained questions pertaining to identification data (name, age, religion, qualification, number of children under five year and above five year), knowledge (regarding transmission of HBV infection and source of information), attitude and practices regarding HBV infection. The questionnaire regarding mode of transmission contained the options like: physical contact, faeco-oral route, sexual contact, infected needle, blood transfusion, mosquito bite, social kissing, hugging and shaking hands. The attitude and practices regarding HBV infection of the women were tested by asking questionnaire about the preventive measures like use of safe water, use of condom, use of sterile needles, any

drug addiction, use of tested blood and blood products and immunization practices. In addition to the above parameters subjects were also interviewed regarding self immunization against HBV and immunization of the children under universal immunization programme and with hepatitis B vaccine. Subjects who had received all the doses of hepatitis B vaccine were considered as fully immunized, those who had received 1 or 2 doses of hepatitis B vaccine were considered as partially immunized and those who had received no dose of hepatitis B vaccine were considered as un-immunized. Similarly children who had received all the doses of vaccines as per universal immunization programme (UIP) were considered as fully immunized; those who had missed one or more doses were considered as partially immunized and rest as un-immunized. At the end of the study all the data was collected and analysed for various parameters. Each parameter was expressed in percentage.

**Table 1: Characteristics of the study population**

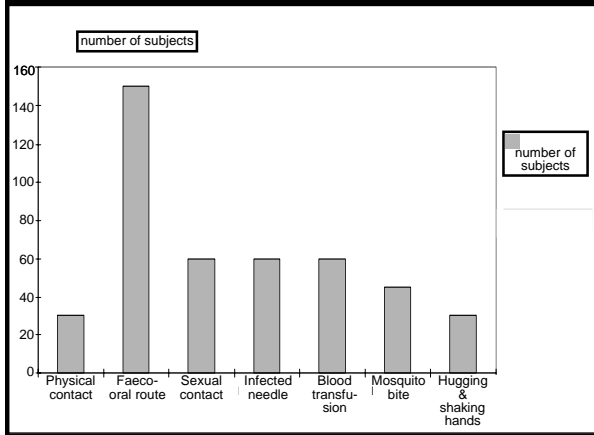
1. Number of females	300
2. Age	20-45 yrs.
3. Number of children	450 (average 1.5 per women)
4. Children under 5 yrs.	300
5. Children above 5 yrs.	150

### Results

In the present study, out of total 300 women only 20% were aware of the mode of transmission of HBV and 50% of the women had misconceptions about mode of transmission like physical contact, faeco-oral route, mosquito bite, hugging and shaking hands (fig.1). Use of condoms and sterile needles was proposed by 20%, avoidance of addiction by 50%, immunization with hepatitis vaccine by 60% and use of safe water by 80% of the women as preventive measures against HBV infection (table 2). Among children under 5 years, 30%, 20% and 50% of the children were fully, partially and un-immunized respectively against HBV infection and in above 5 years group 10%, 20% and 70% of the children were fully, partially and un-immunized respectively against HBV infection (table 3). Moreover, 80%, 15% and 5% of the children were fully, partially and un-immunized respectively as per universal immunization programme in under 5 year group; whereas, 50%, 30%

and 20% of the children were fully, partially and un-immunized respectively as per universal immunization programme in above 5 year group (table 3). Only 4% of the women were found to be fully immunized with hepatitis B vaccine and rest were un-immunized. Friends, radio, television, newspaper, doctor and magazines were found to be the source of information in 20%, 10%, 35%, 5%, 25% and 5% of the women respectively.

**Fig. 1: Knowledge about HBV infection among the study population**



**Table 2: Knowledge about preventive measures against HBV infection among the study population.**

Preventive measures	Yes: number=(n%)	No: number=(n%)
Use of safe water	240 (80%)	60 (20%)
Use of condom	60 (20%)	240 (80%)
Use of sterile needles	60 (20%)	240 (80%)
Drug addiction	150 (50%)	150 (50%)
Use of tested blood & blood products	112 (27%)	188 (73%)
Immunization practices	180 (60%)	120 (40%)

**Table 3: Immunization status of children of women under study.**

Immunization status of children	Fully-n(%)	Partially-(%)	Nil-n(%)
<b>Under 5 yrs. (n=300)</b>			
HBV	90 (30%)	60 (20%)	150 (50%)
UIP	240 (80%)	45 (15%)	15 (5%)
<b>More than 5 yrs. (n=150)</b>			
HBV	15 (10%)	30 (20%)	105 (70%)
UIP	75 (50%)	45 (30%)	30 (20%)

### Discussion

HBV infection is caused by DNA virus with incubation period of 21-135 days (5). HBV infection kills about 1.1 million people globally every year (1). However, incidence of HBV infection could be brought

down by giving proper education regarding its transmission and universal immunization of infants with hepatitis B vaccine. In the present study only 20% of the women were aware about the mode of transmission of HBV and practicing preventive measures like use of condoms, sterile needles, not indulging in drug abuse and tested blood transfusion. Fifty percent of the women were having the misconceptions regarding mode of transmission of HBV infection like faeco-oral route, physical contact etc. Magnitude of awareness regarding HBV transmission in the present study was found to be quite lower than as reported for HIV (having similar mode of transmission) in a study conducted on teachers in Nepal (6). However, in another study conducted on barbers, majority were found ignorant regarding HIV transmission particularly through blade (7). Children below 7 years have the highest infection rates and most of the babies born to mothers who are carriers of HBV also become carriers(1). Moreover, carrier rate of HBsAg in pregnant women was reported as 3.1% (8). Therefore, immunization with hepatitis B vaccine plays a very important role in controlling occurrence of HBV infection. But, only 4% of women, 30% of children up to 5 years and 15% of children above 5 years were fully immunized with hepatitis B vaccine respectively in our study population. 80% of children up to 5 years and 75% of children above 5 years were fully immunized as per UIP respectively. However, effective hepatitis B vaccine has been available since 1982 (2). Routine infant immunization should be the primary strategy to prevent HBV infection globally. Universal vaccination is now proven to decrease the incidence of hepatocellular carcinoma (9). Universal immunization against HBV was started in USA in the year 1991 (10). Despite WHO recommendations for universal immunization against HBV infection by all countries by 1997 the policy has yet not been implemented in India (11). More than 30 countries have adopted immunization against HBV (12). However, there is a paper recommendation for introduction of hepatitis B immunization in universal immunization programme in 9th five year plan of India (1).

## Conclusion

While keeping in view the magnitude of problem it is important to focus on women of child bearing age and educate them regarding magnitude of the problem and its prevention. In our study, television was found to be the major source of information. So it is highly recommendable to utilize this source of information to spread education regarding prevention of the HBV infection. As one in every 20 Indian is a carrier of hepatitis B and children below 7 years have the highest infection rate, so it is vital to implement the recommendations in 9th five year plan of India at the earliest (1). Moreover, the results of our study clearly indicate the low immunization rate with HBV vaccine than that under universal immunization programme and further potentiate the need for implementation of the recommendations in 9th five year plan of India regarding introduction of hepatitis B immunization in universal immunization programme at the earliest.

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