

Bhutanese Refugees: A Threat to
Nepalese Regarding HBV infection

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Bhutanese Refugees: ? A Threat to Nepalese Regarding HBV Infection

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ABSTRACT

Background: The carrier rate of HBsAg is 6% in Bhutan and 1% in Nepal as per WHO 1997 report. Since outbreaks of viral hepatitis B are also known, its high prevalence in a migrated community, if any, may be a potential threat to the rest of the local people. So, this study was carried out on Bhutanese refugees living in refugee camps located in Eastern Region of Nepal to find out the prevalence of HBsAg carrier rate among them.

Methodology: This prospective sero-epidemiological study was carried out in Beldangi II (Extn.) Camp. With the help of semi-structured questionnaires, 500 volunteers enrolled, were interviewed for the risk factors for HBV transmission. Blood samples of 467 subjects were tested for HBsAg by immunoassay based on immunochromatographic sandwich principle.

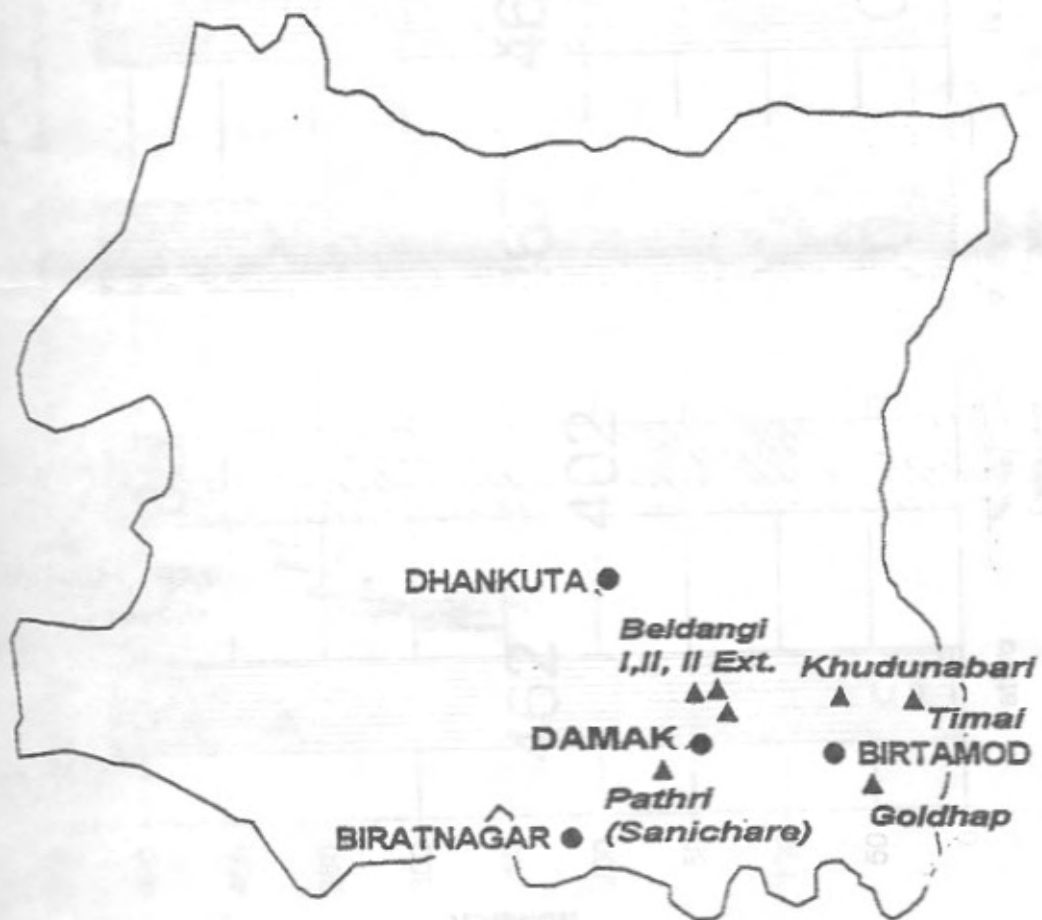
Findings: Out of 467 samples, 4 were positive for HBsAg, an incidence of 0.85%.

Conclusion: HBsAg carrier rate was found to be low in Bhutanese refugees. From the questionnaires, it was also found that they were not engaged in any practice that could increase the chances of HBV transmission. Thus, this study shows that the refugees are not a threat to the local people as far as HBV transmission is concerned.

✓

NO
YES

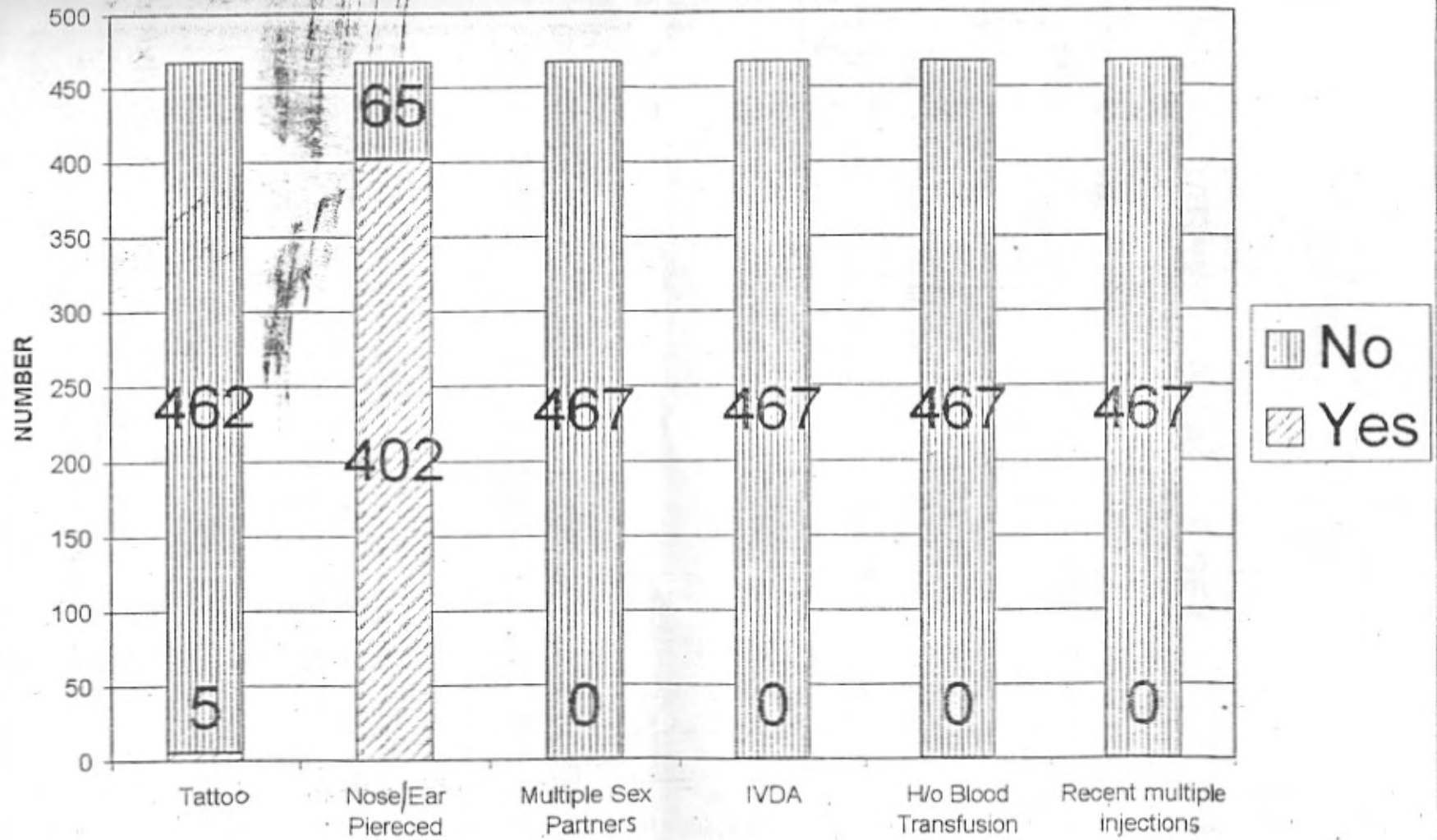
LOCATION OF REFUGEE CAMPS IN THE EASTERN REGION



KEY:

- ▲ Refugee camp
- Town

VARIOUS RISK FACTORS OF HBV TRANSMISSION



BAR DIAGRAM - I

TABLE

HBsAg CARRIERS BY AGE & SEX

YEAR	HBsAg+/M	HBsAg+/F	HBsAg+/T
≤ 10	0/91	0/82	0/173
11-20	0/42	0/5	0/99
21-30	0/22	1/52	1/74
31-40	0/21	0/32	0/53
41-50	1/11	1/23	2/34
>50	0/17	1/17	1/34
Total	1/204	2/263	4/467

RESULTS

Of the 500 subjects enrolled, sera of 33 could not be tested for HBsAg due to inadequate amount of sera and/or erasure of sample number.

Our study population comprises of 204 males and 263 females, a total of 467 subjects. The Indo-Aryans constitute 61.9% and the Mongols 38.1%. Known risk factors for HBV transmission such as multiple sex partners and previous history of blood transfusion were not reported by anyone and intravenous drug abuse (IVDA) was unknown to this community. Only 1.026% had tattoo marks but the practice of nose and ear piercing was quite common. The various risk factors in the study population are represented in bar diagram -I.

4 out of 467 sera tested were positive for HBsAg, an incidence of 0.85%. Females showed higher carrier rate (1.14%) than males (0.49%). All the HBsAg positive individuals are married. Age distribution of the HBsAg carriers is shown in the table.

Likewise, only 1 out of 4 HBsAg positive individuals gave previous history of jaundice.

DISCUSSION

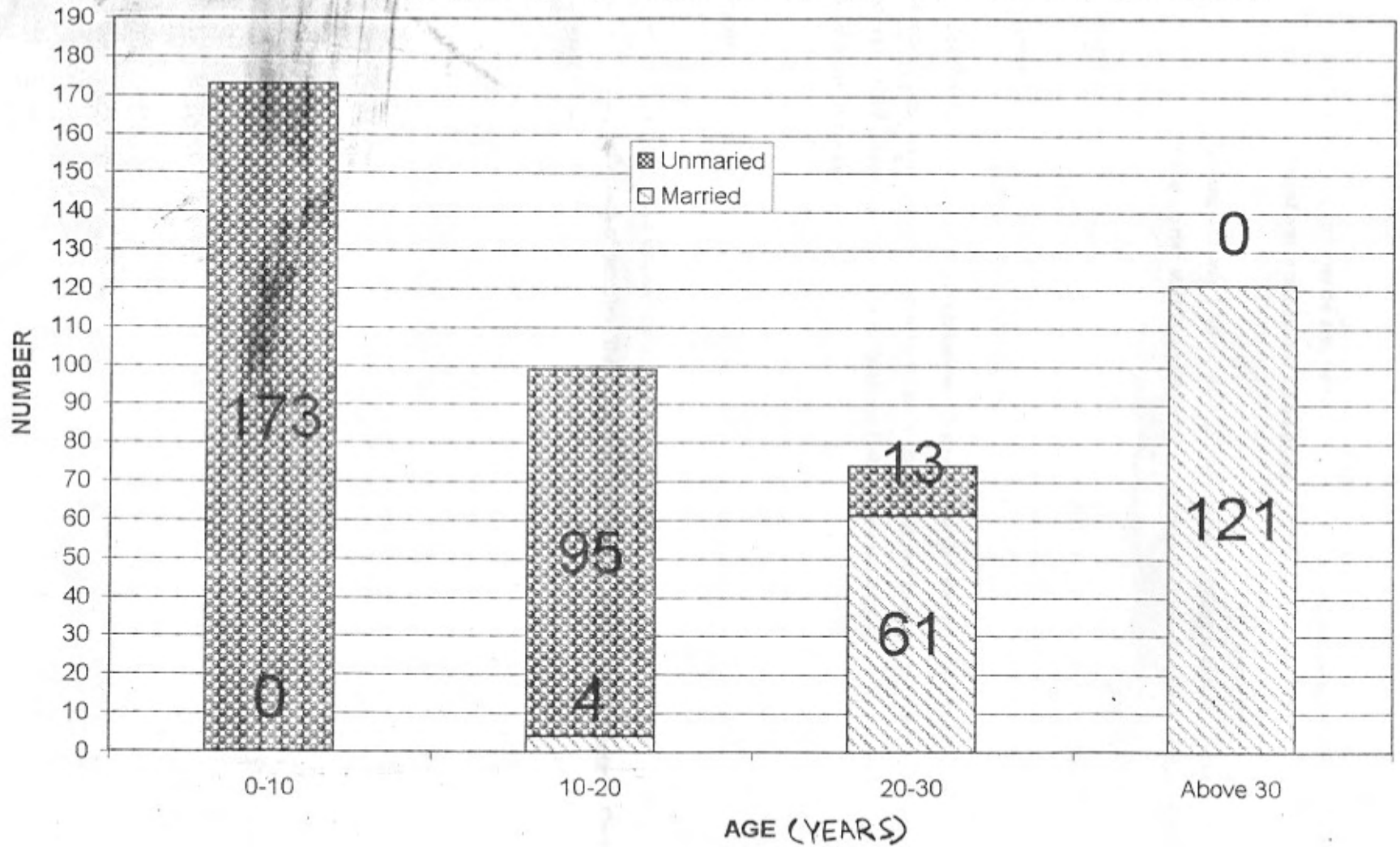
The Bhutanese refugees, called Lhotsampas, are ethnically Nepali, the majority group in Southern Bhutan^{9,10}. The population of Beldangi II (extrn) camp is 9,875.

In this study, the prevalence of HBsAg carrier rate among Bhutanese refugees is 0.85%, a figure very close to the prevalence rate in Nepal but lower than that in Bhutan⁶. This may be due to the fact that the refugees are of Nepali ethnic origin and follow similar Nepali culture and life-style. The lower prevalence may be attributed to relatively less exposure to the risk factors for HBV transmission, as shown in bar diagram - I.

Our finding that the HBsAg carrier rate is nil among children, is consistent with other studies done in areas with low prevalence rate¹¹. All the HBsAg positive individuals are married. This also reflects age distribution of the carriers. Since higher the age, more is the chances of being married (bar diagram II), and, because of the fact that HBsAg carrier rate is more in adults and elderly in areas with low prevalence, HBsAg +ivity is likely to be high among married individuals.

Contrary to other studies¹²⁻¹⁵ the higher prevalence of HBsAg carrier rate among females (1.14%) than males (0.49%) may be due to higher infection rate in them, probably due to the common

AGE VERSUS MARITAL STATUS



BAR DIAGRAM - II

practice of nose/ear piercing and may be also because the total number of adults and elderly females is more than the total number of adults and elderly males in our study population.

Similarly our finding that only 1 out of the 4 individuals had jaundice is similar to other studies^{17,18} in that HBsAg carrier state is more likely to develop in anicteric infection than in icteric infection.

CONCLUSION

The HBsAg carrier rate among Bhutanese refugees is low (0.85%) compared to 1% in Nepal and 6% in Bhutan⁶. Besides this, they were not found to be engaged in any such practice that could increase the chances of HBV transmission. So, this study shows that they are not a threat to the local people as far as HBV infection is concerned.

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