Preliminary Communication

SUB-SPECIFICITIES OF HEPATITIS Bs ANTIGEN

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Abstract

A preliminary survey of HBsAg subtypes shows that ayw is the most common subtype in Pakistan. adw. was detected in one blood donor and ayr in a Baluchi female with acute viral hepatitis.

Introduction

The heterogenecity of Hepatitis Bs antigen is well documented (LeBouvier 1971; Bancroft et al., 1972; Levene and Blumberg, 1969). The various subtypes have a random geographical distribution and their relationship to acute and chronic liver disease still remains controversial (Sama et al., 1974; Gerety et al., 1975). The object of this preliminary study was to determine the pattern of HBs Ag subtypes in blood donors and patients with liver disease.

Material and Methods

HBs Ag positive sera from 27 blood donors and 14 patients with acute and chronic liver diseases were sent to Dr. Nishioka of Toyko Metropolitan Institute of Medical Science, Japan for determining the subtypes using radioimmunoassay.

Results

Of 41 sera 39 were of subtype ayw, 1 adw and 1 ayr as shown in the accompanying table. No difference was observed in the pattern of subtypes in blood and patients with liver disease.

Table : Sub-types of HBs/Ag

Groups	*HBs Ag/ayw*	*HBs Ag/adw*	*HBs Ag/ayr*	*Total*
Blood donors	26(96.3%)	1(3.7%)	—	27
Acute Hepatitis	9(90.0%)	—	1(10.0%)	10
Chronic hepatitis	2(100.0%)	—	—	2
Other hepatic disorders	2(100.0%)	—	—	2

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Discussion

A variation in the geographical distribution of HBs Ag subtypes has been shown by Nishioka et al. (1975). The subtype adr was most predominant in countries west and ayw in countries east of Burma. This preliminary study shows that as in the neighbouring countries like India and Iran, ayw is the most frequent subtype in Pakistan. The detection of adw in a blood donor and ayr in a Baluchi female patient with hepatitis is interesting as the former was found to be predominant mainly in Hamite Africans as compared to other ethenic groups in Africa and the latter was reported only from Japan and Papua, New Guinea (Nishioka et al., 1975). A more detailed survey of subtypes through-out the country will be necessary to ascertain if there is some geograhical discontinuity in the pattern of HBs Ag subtypes.

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