SCREENING FOR ANTIBODIES TO HTLV-III/LAV IN OUR POPULATION A WORD OF CAUTION

Pages with reference to book, From 84 To 85

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The human T-ceIl lymphothrophic virus, variously called HTLV—III, lymphadenopathy associated virus (LAV) or acquired immunodeficiency (AIDS) related virus is believed to be the causative agent of AIDS[1]. Positivity for the HTLV-III/LAV antibody seems to be an indication of viral infection in most patients with AIDS and most healthy persons who are exposed to the virus[1-2] AIDS occurs with increased frequency in homosexual men, intravenous drug abusers, patients with hemophilia, recipients of blood transfusion and close heterosexual contacts of members of these high risk group[3]. Concern about the risk of transmission of HTLV—III has resulted in large scale screening for its antibody in Western as well as some third world countries[4-8] Similar concerns have stimulated many private and some government laboratories in Pakistan to screen for HTLV-III antibodies in our population. A few are screening blood donors as in West[9], others are surveying populations and some unfortunately are screening healthy individuals in context of diagnosis of AIDS. The financial and psychosocial repercussions of such widespread testing of asyrnptomatic persons from low-risk groups are well documented in Western experience[10] Before we publicise our findings in our population and attach significance to them, it would be worthwhile to survey international seroepidemiology of HTLV-III antibodies and to scrutinise testing procedure available in Pakistan.

Surveyors of AIDS retrovirus seroepidemiology in our population should be aware of false positive reactions encountered by others. Bigger et al reported the relation between Malaria and nonspecific positivity in the antibody assays for retroviruses, including HTLV-III due to high\ antibody titre against Malaria[11] Voisky et al from Venezuela reported false positive antibodies to HTLV-III in acute malarial infections both in P. falciparum and P. Vivax and related this to cross-reactivity between Malaria and retrovirus antigens[12] In fact they isolated a retrovirus similar to HTLV-HI called SA-RV from a patient with Malaria[12]. Recently Mendenhall et al reported false positive tests for HTLV-III antibodies in alcoholic patients with hepatitis[13] Furthermore antibodies reactive with HTLV-III/LAV have been detected among healthy subjects not belonging to any recognised AIDS risk group who live in certain rural regions of Africa[8-14] and South America[15] Epidemiological survey in Pakistan has shown that Malaria is endemic in our population, Hepatitis B virus is the main causative factor of liver disease, [16] and high prevalence of T-cell leukaemias[17] in our population. These facts necessitate that we simultaneously and on ap urgent basis evaluate retrovirus in our population and then attach significance to HTLV-III antibody screening or give diagnostic importanèe to positive tests.

The enzyme-linked immunosorbant assay (ELISA) for detecting antibody to human T-celi lymphothrophic virus HTLV-III is the only available tool in Pakistan. Though this procedure has proved to be a valuable tool in examination of association between exposure to HTLV-III and AIDS and its related complexes[18] it gives many false positives in screening of healthy individuals'[19-20] and false negatives are seen in early HTLV-III infections.[21] Furthermore the presence of anti-nuclear and anti-mitochondrial antibodies, human leucocyte antigen and human T..cell antigen have been highly correlated with false reactivity on the ELISA[22]. Indeed at times even more specific tests, e.g., Western Blot give false positives[19] It follows that laboratories conducting ELISA must also equip themselves with other techniques, i.e., Western Blot, Immunoprecipitation and Immunofluorescence.

These observations demand caution when screening for HTLV-Ill antibodies in our population. Since

AIDS is a fact that should not be ignored an urgent analysis of retrovirus and their antibodies must be evaluated in our population. It should be done in context of high risk groups[3] Malaria, Hepatitis and leukaemia. Those who are screening asymptomatic healthy individuals should prepare themselves for answers to POSITIVES.

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