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HTLV-I ASSOCIATED MYELOPATHY IN BRAZIL

A PRELIMINARY REPORT

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SUMMARY — In this preliminary report the authors present the finding of a high prevalence (37.5%) of seropositivity of antibodies to HTLV-I tested by Western blotting in a sample of 16 Brazilian patients with chronic myelopathies of undetermined origin.

Mielopatia associada ao HTLV-I no Brasil: relato preliminar.

RESUMO — Neste relato preliminar os autores registram a constatação de alta prevalência de soropositividade para anticorpos dirigidos ao HTLV-I detectados pelo método de Western-blot (37,5%) em amostra de 16 pacientes brasileiros com mielopatias crônicas de causa não determinada.

Human T-lymphotropic virus type I (HTLV-I), in addition to causing adult T-cell leukemia, is the suspected etiological agent of tropical spastic paraparesis (TSP), a chornic myelopathy endemic in the Caribbean Islands and Coastal Colombia [1,2]. It has also been linked to a similar clinical condition reported in Southern Japan, HTLV-I associated myelopathy (HAM)[3].

In order to evaluate the role of HTLV-I infection in chronic myelopathies in Brazilian patients, an investigation for antibodies to HTLV-I was carried out in patients attending Neurologic Unit at Hospital das Clínicas (São Paulo University, Brazil).

PATIENTS AND METHODS

A total of 29 patients were studied, divided in two groups. Group one consisted of 16 patients presenting with chronic progressive paraparesis accompanied or not by sphincteric dysfunction or sensory symptoms. Previous diagnosis included: myelopathies of undetermined cause in 11 patients, possible multiple sclerosis in two and spinal schistosomiasis in three. Group 2 consisted of 13 patients with spastic paraparesis associated with other neurologic findings that had received the diagnosis of clinically defined or laboratorially supported multiple sclerosis (MS).

Sera were initially screened with an enzyme immuno assay (EIA) using purified viral proteins to capture specific antibodies to HTLV-I (Abbot Lab. N. Chicago). Repeatedly positive reactive samples were confirmed by Western blot. A positive result was defined by the presence of antibody to a minimum of 2 out of 3 gene products (core p19 or p24 and envelope gp46). Samples not confirmed by Western blot were further evaluated by radioimmune precipitation assay (RIPA) using the same criteria for positivity. Sera were also screened with an EIA for antibodies to human immunodeficiency virus (HIV).

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RESULTS

Seven patients were found positive to antibodies to HTLV-I by the criteria adopted. Six patients belonged to group 1 and one patient belonged to group 2. None of the patients tested seropositive for antibodies to HIV.

COMMENTS

In our sample of 16 patients with chronic myelopathies of undetermined cause, a seropositivity was found in 6 (37.5%) a number 90-fold greater than the 0.42% frequency of seropositivity observed in 2138 healthy Brazilian blood donors (Lee H and Allain J P, personal communication). In our patients, mild CSF pleocytosis and discrete elevation of CSF protein and gamma globulin content were common findings.

Further studies are needed to investigate the epidemiology of HTLV-I infection in Brazil, as well as its relation to spastic paraparesis and other chronic neurologic diseases, especially multiple sclerosis.

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