

Prevalence of anti-HTLV-1 serum antibody in the adult population of the Seychelles

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The human T-lymphotropic retrovirus type I (HTLV-1) is believed to be associated with tropical spastic paraparesis (a chronic demyelinating neurologic disorder) and adult T-cell leukemia. HTLV-1 is mostly endemic in the Caribbean, Southeastern Asia, Europe and in some areas of Africa. In the Seychelles, as many as 83 patients out of a census population of 67,000 were recently found to have tropical spastic paraplegia and 85% of these patients were found to have antibodies for HTLV-1 (Roman GC et al. *Neurology* 1987; 87:1323–28). The prevalence of HTLV-1 carriers in the Seychelles population has however not been investigated so far.

HTLV-1 antibody was determined incidentally from serum collected in a survey aimed at determining the prevalence of cardiovascular risk factors in the Seychelles and carried out in 1989. 1081 individuals participated in the survey from an age- and sex-stratified random sample of 1251 Seychellois aged 25 to 64 years. HTLV-1 antibody was determined in 1055 out of the 1081 serum collected (shortage of available serum for the 26 other cases). Antibody to T-lymphotropic retrovirus type I (HTLV-1) was determined by a commercially available EIA (Abbott HTLV-1 EIA; Abbott Laboratories, North Chicago, USA). Detailed methodology of the survey is provided in another section of the journal.

Prevalence of anti-HTLV-1 antibody (standardized for age) was 3.7% in men and 7.4% in women. Crude prevalence increased with age from 1.9% and 5.8% at age 25–34 to 3.7% and 7.4% at age 55–64, in men and women respectively, thus a steeper increase of prevalence being observed in women. HTLV-1 antibody was more frequent in the lower socio-economic status groups. Participants had no neurological examination performed but were asked on their present health status at the time of the survey. Only 1 (out of 73) seropositive individual and 2 (out of 1055) seronegative individuals reported possible neurologic disorders of lower limbs (“weakness in legs” for all 3 cases). The recorded prevalence of anti-HTLV-1 antibody found in the Seychelles is among the highest observed in endemic countries for HTLV-1. The increasing prevalence of anti-HTLV-1 antibody with age suggests that the risk of contracting the infection persists life-long.

Although it is not yet definitely known if the infection with HTLV-1 leads to clinical disease in an increased number of subjects, blood donors should be screened for HTLV-1 since transmission has been shown to occur through blood transfusions.