Tropical Spastic Paraparesis and HTLV-1
Viral Prevalence among Relatives of UK Patients in Britain and Jamaica

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Over 75% of patients, worldwide, with Tropical Spastic Paraparesis (TSP) have HTLV-1 antibodies (Ab). Each of the 18 patients, of West Indian origin tested so far in Britain, has Ab. Ab prevalence in Jamaica and in UK migrants is 4-6%. We have examined factors associated with transmission (breastfeeding, blood transfusion, etc). We have also tested the hypothesis that viral spread is commoner in Jamaica than in a temperate zone, such as Britain. If the hypothesis is true, Ab prevalence should be higher in Jamaican-born and resident (Group 1) than in UK-resident subjects; Jamaican-born (Group 2) first degree relatives should have the next highest prevalence; Ab should be least frequent in UK-born offspring (Group 3) of UK-TSP patients. Of 69 living relatives of the TSP patients, 64 were available and 60 were tested.

All the relatives had been breastfed and none had had a blood transfusion. Group 1 were slightly older than Group 2 (mean 52 vs 46 yrs.) and both groups were a generation older than Group 3 (20 yrs.) Group 2 had been in Britain a mean of 26 years. Ab prevalence was much greater, based on immunofluorescence than with an ELISA system (confirmed by Western blot). Using ELISA confirmation, positive results (>1:20 titres) were found in 3/25 (12%) of Group 1, 7/21 (33%) of Group 2 and 0/14 of Group 3. Only 3 of 7 spouses were Ab-positive.

These data illustrate that a slight excess of HTLV-1 Ab occurs in family members of UK-TSP patients compared with the general Jamaican population. Mother-to-child transmission is not common.