

Summary

Human T lymphotropic virus type I (HTLV I) is the documented aetiological agent of adult T cell leukaemia, an aggressive form of T cell malignancy. (Hinuma , 1981) It is associated with a few other malignant conditions including T cell variants of Non-Hodgkin's lymphoma and certain non-malignant conditions as well. It may be a confounding factor, which determines the overall prognosis in certain solid malignancies. (Miyazuki, 1991) Although some clinicopathological conditions linked to HTLV I infection have been described in Sri Lanka, a systematic study on the prevalence of the infection is yet to be undertaken. This laboratory-based study was designed and carried out in a cohort of patients with malignancies that were at a higher risk of HTLV I infection.

Objective

The objective of this descriptive study was to confirm the existence of HTLV I infection in Sri Lanka and to perform a sero survey of the HTLV infection in patients with haematological and other non-haematological solid malignancies.

Method

This study was carried out in two phases. A total of two hundred and three patients under three different groups [leukaemia group (n=39), lymphoma group (n= 25) and other solid malignancies (n=139)] participated in the study. During the phase one, serum from each patient was screened using passive particle agglutination test (FujiRebio^R Japan). Positive

and indeterminate tests were duplicated and subjected to confirmation by Western Immunoblot (HTLV BLOT 2.4 Genelabs^R Diagnostics) in the second phase of the study.

Results

One patient with Non Hodgkin's Lymphoma – intermediate type (1 of 25, representing 4% of Lymphoma group, 0.49% of total study population), and one patient with other solid malignancy group (1 of 139, representing 0.71% of the group, and 0.49% of total) were sero positive for HTLV I infection. One patient from the latter group (1 of 139, 0.71% of the group and 0.49% of the total) had indeterminate reactivity. Although both positive occurrences were confirmed to be true positives for HTLV I infection, the patient with indeterminate reactivity to the PPA test, yielded a negative result in the confirmatory test.

Conclusion

This study provides first ever laboratory proven evidence of existence of human T lymphotropic virus type I in Sri Lanka.