

Survey of HTLV-1 Antibody Among Thalassemic Patients in Gorgan

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Abstract

Background and objectives: HTLV-1 virus belongs to the retrovirus and infection with this virus mostly is seen among people having more than one time blood transfusion. Because of requiring repeated blood transfusions, thalassemic patients are considered to be high risk subjects in this regard. Thus, this study was carried out to indicate the frequency of HTLV-1 infection among the thalassemic patients.

Materials and Methods: Blood samples of 181 thalassemic patients referred to Taleghani hospital during nearly two years (2004-2005) were taken. By using ELISA technique, the sera were assessed to determine HTLV antibody. The positive ones subsequently were examined by western Blot (kit, 2.4) to confirm the ELISA positive samples and also to recognize the HTLV type.

Results: Of 181 thalassemic patients, 93 (51.4%) were male. The age was between one and twenty five (14.11 ± 6.5). 93.4% (169) were received packed cell only once in a month. 14.9% (27) were HTLV positive by ELISA technique, while just eight out of these 27 were considered to be true positive by Western blot and to be contaminated by type one virus. Of all subjects, 4.4% were positive HTLV1. Furthermore, the contamination with this virus is increased as the patients getting older.

Conclusion: The findings indicated that among the thalassemic patients in Gorgan, there are cases with HTLV-1 whose frequency is correlated with the other part of our country. Consequently, further comprehensive studies are required to identify those infected blood donated to minimize the transmission risk of this infection in the society and in particular among the people receiving blood, such as thalassemic patients.

Keywords: HTLV-1 antibody, thalassemic patients, ELISA, western Blood, Gorgan