FIRST CASES OF HUMAN T LYMPHOTROPIC VIRUS TYPE 1 (HTLV-1) INFECTION OBSERVED IN SLOVAKIA

V. Mayer

Institute of Virology, Slovak Academy of Sciences, 84246 Bratislava, Czecho-Slovakia

Received August 21, 1990

The association between the HTLV-1 and a highly malignant variant of adult T cell leukaemia/lymphoma as well as a slowly progressing neuromyelopathy has been documented *(1)*. These diseases constitute medical and public health problems in HTLV-1 endemic regions, e. g. in south Japan or west Africa. Recently a low, but significant spread of HTLV-1 in some specific subpopulations in non-endemic parts of the world including Europe, is observed *(2, 3, 4)*. Marker diseases of HTLV-1 were not observed in the last twenty-forty years among the indigenous caucasian population in Europe, which was never considered for an endemic region. This view supports a very low (0.015 per cent) incidence of confirmed HTLV-1 antibodies in the HIV-1 seronegative blood donor populations *(4)*. Nevertheless, serological evidence showed the presence of HTLV-1 at least in some parts of Italy, beginning from 1978 *(3, 5, 6)*, i.e. before the AIDS epidemic was recognized. The HTLV-1 circulation seems mostly confined to subpopulations at risk, e. g. intravenous drug abusers (IVDA), not uncommonly co-infected with HIV-1. Still not fully evaluated risk for the general European population constitute immigrants from endemic regions, among which participates a relatively high number of HTLV-1 seropositive persons (except IVDAs) and by this fact also of virus carriers (e. g. *7, 8*), especially in countries with some past links to endemic areas and, under certain circumstances, also in other persons of the same descent.

Investigation of registered haemophiliacs (HPH) and African students living by residence for several years in Slovakia provides means to address the question of HTLV-1 infections at least among these two specific subpopulations. Serum samples from 172 HIV-1 seronegative HPH were screened by the passive particle-agglutination test for detection of HTLV-1 antibody (Serodia ATLA Fujirebio, Inc; lot. no. RP10404). Two sera were found repeatedly reactive (in dilution 1:64 and 1:1024, resp.). After retesting of all 172 sera by HTLV-1 ELISA (DuPont, lot. no. 40317350-2) none of them was shown reactive, however. Serum samples from together 410 HIV-1 and HIV-2 seronegative healthy African students were screened with the same lot of HTLV-1 ELISA. In serum samples of a 23-year-old and of a 31-year-old man, originating from two neighbouring West African countries, HTLV-1 antibodies were confirmed by Western blot in our laboratory and by dr. J. Goudsmit (Amsterdam).

A significant circulation of HTLV-1 among HPH seems unlikeli. For persons from HTLV-1 endemic regions, residing for longer time in Slovakia, exclusion from blood and e. g. organ donations is fully warranted. In Slovakia, there is only a negligible number of IVDAs as yet and among the known HIV-1 seropositive homosexual men HTLV-1 antibodies were not observed. An active and steady surveillance concerning this preventable infection in all at risk groups seems as advisable.

References

1. Blattner, W.: *Ann. Int. Med.* **111**, 4, 1989.
2. Williams, A. *et al.*: *Science* **240**, 643, 1988.
3. Gradilone, A. *et al.*: *Lancet* **i**, 753, 1986.
4. Mayer, V., and Ebbessen, P.: *Int. J. Cancer* - submitted for publication.
5. Titti, F. *et al.*: *J. Acq. Imm. Def. Synd.* **1**, 405, 1988.
6. Manzari, V. *et al.*: *Int. J. Cancer* **36**, 557, 1985.
7. Courtois, F. *et al.*: *Lancet* **i**, 1103, 1990.
8. Banatvala, J. *et al.*: *Lancet* **i**, 859, 1990.