HTLV-1 Antibodies in Hemodialysis Patients

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Dear Sir,

The high proportion of patients originating from endemic areas for HTLV-1 infection (Black Africa, the West Indies) among patients hemodialysed in France on one hand and the exposure of hemodialysed patients to the risk of transfusion of HTLV-1-contaminated blood on the other, led us to prospectively test all the patients treated in our hemodialysis unit for the presence of HTLV-1 antibodies. Seventy-one patients (39 males, 32 females; mean age: 53.5 ± 16.1 years) were tested between February 1, 1989, and October 31, 1990. Fifty-two patients were Caucasian, 16 were Blacks (8 originating from Black Africa, 8 from the French West Indies) and 3 were Asian. Two patients tested positive for HTLV-1 by ELISA (Abbott, Chicago, Ill., USA) but only 1 was confirmed by Western blot (Biotech Research Lab., Rockville, USA) which was positive for all core proteins and for the envelope glycoprotein gp46.

Our patient, a 50-year-old Black female, HBV- and HIV-negative, originated from Guadeloupe. She arrived in Paris in 1974 and never returned to the West Indies thereafter. She had been on maintenance hemodialysis since December 1984 and had received 8 blood units between November 1984 and April 1987; she was not transfused any further. All serum samples collected since she had begun to be dialysed were retrospectively tested and all were positive for HTLV-1 both by ELISA and Western

blot. It is not possible to conclude if she had been infected by the single transfusion she had received 1 month before she entered the dialysis unit or earlier by another route (sexual?) either in Guadeloupe or in France. It must be emphasized that HTLV-1 infection had remained totally asymptomatic in our patient since 1984, and that no other case of HTLV-1 infection was detected among the other patients dialysed in the same unit, whereas no special precaution had been taken to prevent the spread of this infection.

The prevalence of HTLV-1 antibodies in hemodialysis patients is highly variable depending upon the geographical areas from where they originate. However, it seems generally higher than the prevalence found in the general population from the same area. Though widely varying from one region to another (from 1.1 to 33.8%), highest prevalence have been found in Japanese dialysed patients [1]. A prevalence of 6.2% (8/129) has been found in patients dialysed in Miami (70% of whom were Blacks) whereas it has been only of 0.08% in blood

donors from this region [2]. A prevalence of 1.03% (1/97) was observed in a dialysis center of Northern Italy [3] whereas HTLV-**I** antibodies were found in none of 1,732 Italian blood donors [4]. The prevalence of 1.4% found in our hemodialysed patients is also much higher than that found in continental French blood donors (0.011% (5/43,033) [5]. According to these data, we think that it should be recommended to systematically test for HTLV-**I** antibodies both blood donors originating from endemic areas and patients receiving maintenance hemodialysis.

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0028-2766/92/

0611-0124\$2.75/0