

LAV/HTLV-III and HTLV-I Antibodies in Hemodialysis Patients

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Dear Sir,

It is well appreciated that chronic renal failure is immunosuppressive and that infection remains a predominant complication of renal insufficiency [1]. Moreover, patients treated with maintenance hemodialysis have a high risk of acquiring hepatitis B virus (HBV) infection [2]; blood transfusion, blood-contaminated equipment, and body fluids naturally containing minute amounts of virus are commonly considered to be the vehicles of transmission.

Because the spreading pattern of human T-lymphotropic retroviruses (HTLVs) is known to be essentially the same as HBV [3], we decided to test the patients of our hemodialysis unit for the presence of antibodies against LAV/HTLV-III and HTLV-I proteins as a sign of viral exposure.

The main features of the 87 patients examined are illustrated in table I. It is worth noting that only 5 (5.9%) out of 84 patients became HBsAg positive during the dialytic treatment, thus showing the efficiency of our standard procedures to prevent HBV infection. The serum samples were analyzed for HTLV antibody reactivity using ELISA and Western blot assay as already described [4]. Three samples resulted positive in ELISA for LAV/HTLV-III antibodies but, when analyzed by Western blot to confirm antigen specificity, these sera were found negative. Only one serum sample was antibody positive for HTLV-I proteins with both assays, p19 and p24 being the viral proteins recognized by Western blot. The donor was a 54-year-old female suffering from chronic pyelonephritis and undergoing dialysis since 1975; in her case history a posttransfusional viral hepatitis was reported in 1969, while no blood transfusions had been received in the last 10 years.

Table I. Main features of 87 hemodialysis patients studied for antibody reactivity against LAV/HTLV-III and HTLV-I antigens

	Patients, n
Females	42
Males	45
Length of dialytic treatment	
< 1 year	26
1 – 5 years	37
5 – 10 years	16
> 10 years	8
Blood transfusion	
< 10 U	28
> 10 U	16
HBsAg positive	
Before treatment	3
During treatment	5
LAV/HTLV-III antibody positive	0
HTLV-I antibody positive	1

It should be mentioned that the antibody prevalence in individuals not belonging to known risk groups from the Veneto region is 0.02% for LAV/HTLV-III; no HTLV-I seropositive individuals have been found to date in the general population.

In conclusion, our data indicate that the transmission of HTLVs in renal failure patients is unlikely to occur as a result of hemodialytic treatment.

Acknowledgments

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