Anti-HTLV-III Antibodies in Dialyzed or Transplanted Patients in Spain

J.		Teixidó ^a
E.		Argelagués ^a
A.		Caralps ^a
R.		Romero ^a
F.O.		Oppenheimer ^b
M.J.		Ricart ^b
J.		Martorell ^b
J.M.		Griño ^c
R.		Solá ^d

^aHospital 'Germans Trias i Pujol', Badalona (Barcelona); ^bHospital Clínico, Barcelona; ^cHospital 'Prínceps d'Espanya', Hospitalet de Llobregat (Barcelona); ^dInstituto de Urología, Fundación Puigvert, Hospital de la Santa Creu i Sant Pau, Barcelona, España

A. Caralps, MD, Servicio de Nefrología, Hospital de Badalona 'Germans Trias i Pujol', Carretera de Canyet, s/n, Badalona (Spain)

Dear Sir,

In July 1986 we investigated the presence of HTLV-III antibodies in 308 patients on chronic hemodialysis or with kidney transplants and in the partners of those found positive. The method used was ELISA (Abbott) confirmed by immunofluorescence or Western blot.

Of the 308 patients, 46.7% were treated with hemo- or peritoneal dialysis only; 44% had a functioning kidney transplant (x:27 months) and 9.4% were returned to dialysis after an unsuccessful renal transplantation (x:17 months with acceptable renal function). On the average, 92.5% of the patients had received 8 blood transfusions and 3.6% had been given plasma transfusions. All blood products were obtained from volunteers blood donors not serotyped for HTLV-III. In 1985, HTLV-III antibodies were detected in 0.23% of 2,142 randomly chosen volunteer blood donors in Barcelona [1].

Two patients (0.64%) were found positive for HTLV-III antibodies. The first patient probably was exposed to the virus through some of the 44 units plasma and 26 units of blood he received since February 1983 when he underwent plasma exchange because of extracapillary idio-pathic glomerulonephritis. The second patient had received a cadaveric kidney transplant in February 1985. Seroconversion for HTLV-III coincided with the transplantation in February 1985, but all serum samples obtained before the transplantation were negative.

Retrospective investigation revealed that the donor of the cadaveric kidney had been an intravenous drug abuser. The recipient of the second kidney from the same donor, not included in the 308 screened patients, was also found positive for HTLV-III antibodies. Seroconversion also coincided with the transplantation. None of the patients with HTLV-III antibodies belonged to any of the risk groups for AIDS and no clinical signs of AIDS or AIDS-related complex have so far appeared in any of the three. However, all three had abnormally depleted OKT4-reactive

lymphocytes (< 400 T4 lymphocytes/ml) and low T4/T8 ratio compared to a control group of uremic patients (patient one) or to transplanted patients after recovering from acute rejection and on prednisone treatment (2nd and 3rd patients).

Only one of the three heterosexual partners was HTLV-III positive. After 2 years, none of the 11 patients dialysed with the dialysis monitor of the first positive patient had HTLV-III antibodies. These findings as those of other authors [2,3] suggest that HTLV-III infection of kidney transplant recipients or chronic hemodialysis patients can be prevented by careful avoidance of blood products or kidney transplants from infected donors. Currently, we do not accept either blood or kidney donors with HTLV-III antibodies or who belong to one of the AIDS risk groups, even when they are negative for HTLV-III antibodies [4]. To avoid contagion of other patients or staff, the prophylactic measures recommended by the Centers for Disease Control in Atlanta for hemodialysis patients with AIDS [5] are used for patient undergoing chronic hemodialysis and preventive measures have also been adopted for all sexual contacts of the three HTLV-III positive patients [6].

Finally, we do not yet know whether renal transplantation is contraindicated in patients with end-stage renal failure and positive HTLV-III antibodies, because of the possibility that additional immunosuppression may trigger the appearance of clinical symptoms [7].

326

Teixidó/Argelagués/Caralps/Romero/Oppenheimer/Ricart/Martorell/Griñó/Solá

References

Hernandez, J.M.; Argelagués, E.; Canivell, M.: HTLV-III antibody in paid donors in Spain. *Lancet* i: 1389 (1985).

Neumayer, H.H.; Wagner, K.; Kresse, S.: HTLV-III antibodies in patients with kidney transplants or on haemodialysis. *Lancet* i: 497 (1986).

Prompt, C.A.; Reis, M.M.; Grillo, F.M.; Kopstein, J.; Kraemer, E.; Manfro, R.C.; Maia, M.H.; Comiran, J.B.: Transmission of AIDS virus at renal transplantation. *Lancet* ii: 672 (1985).

Salahuddin, S.Z.; Groopman, J.E.; Markham, P.D.; Sarngad-haran, M.G.; Redfield, R.R.; Mc Lane, M.F.; Essex, M.; Sliski, A.; Gallo, R.C.: HTLV-III in symptom-free seronegative persons. *Lancet* ii: 1418–1420 (1984).

Favero, M.S.: Recommended precautions for patients undergoing haemodialysis who have AIDS or non-A, non-B hepatitis. *Infect. Control* 5:301–305 (1985).

Friedland, G.H.; Saltzman, B.R.; Rogers, M.F.; Kahl, P.A.; Lesser, M.L.; Mayers, M.M.; Klein, R.S.: Lack of transmission of HTLV-III/LAV infection to household contacts of patients with AIDS or AIDS-related complex with oral candidiasis. *New Engl. J. Med.* 314:344–349 (1986).

Oliveira, D.B.G.; Wearnls, C.G.; Cohen, J.; Lind, P.W.; Williams, G.: Severe immunosuppression in a renal transplant recipient with HTLV-III antibodies. *Transplantation* 1: 280–282 (1986).