Incidence of Human Immunodeficiency Virus Antigenaemia in Patients on Haemodialysis

P.		Coratelli
R.		Corciulo
G.		Passavanti

Istituto di Nefrologia, Università di Bari, Italia

P. Coratelli, MD, Institute of Nephrology, University of Bari P.G. Cesare, I-70100 Bari (Italy)

Dear Sir,

Patients on regular dialysis treatment (RDT) are in a high-risk group of acquiring human immunodeficiency virus (HIV) infections by blood transfusions, blood contaminated equipment of after kidney transplantation [1–3].

HIV antigen seems to appear in serum some weeks before antibodies become detectable, and while HIV infection is on the increase, antibody screening cannot exclude an early stage of infection.

We tested 143 sera of patients on RDT for the presence of HIV antigen by Abbot enzyme immunoassay at time 0 and after 9 months. Specificity was checked by a neutralization test with prior treatment of serum by a human polyclonal antibody to HIV. Two sera were repeatedly reactive (1.4%) but only one of them could be neutralized by pretreatment with specific antibody indicating positive reaction.

Positivity was confirmed also after 9 months of observation. The patient with HIV antigen positivity had no risk factors for HIV infections, received 3 blood transfusion units in the last 2 years, and presented no clinical symptoms of AIDS or ARC. Seroconversion cannot be detected after 9 months. The clinical data of the HIV antigen-positive patient are illustrated below.

The detection of virus antigen in the serum from uremic patients infected with HIV can supplement tests for antibodies in diagnosis of HIV infection because antigens are often detectable in blood many months before antibodies appear and with the absence of clinical symptoms.

We conclude that the HIV antigen test should be used to close the diagnostic 'window' between infection and antibody production that in haemodialysed patients can be greater for uremic immunosuppression or delayed immunoresponse.

Sex

Age, years

RDT

months

Lymphadenopathy Hepatomegaly

OKT4 OKT8

HbsAg

HbsAb

M

62

74

negative negative

0.97

negative

positive

References

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