HEAT INACTIVATION OF SERUM MAY INTERFERE WITH HTLV-III/LAV SEROLOGY

Sir,—Commercial kits have lately been introduced for the detection of antibodies to human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) in serum. Not all kits licensed for the screening of blood donors can be used for routine diagnostic purposes in other circumstances. The US Centers for Disease Control recommends that sera from individuals suspected or known to be at high risk of HTLV-III/LAV infection be heated at 56°C for 30 min before enzyme immunoassay. 1 Martin et al 2 state that sera can be heated without loss of antibody activity. However, we have found that this procedure may interfere with subsequent serological testing.

We have tested 15 sera from 15 healthy laboratory workers by the Organon Teknik ‘Vironostika’ anti-HTLV-III micro-ELISA and by the Abbott HTLV-III enzyme immunoassay before and after heat treatment. Both kits have been licensed by the US Food and Drug Administration for blood donor screening. All 15 unheated sera were negative in both tests (median ratio of extinction value to cut-off: Organon 0·4, range 0·2–0·7; Abbott 0·4, range 0·2–0·5). After heating at 56°C for 30 min all sera were still negative in the Organon test (median 0·4, range 0·2–0·5) but had become positive in the Abbott test (median 2·1, range 1·2–3·4).

Although the Abbott kit is recommended by the manufacturer for blood donor testing only, for which purpose sera are not routinely heated, this test is also used for diagnostic work with heated sera. The directions enclosed in this kit do not warn against heat treatment.

Rüniinstituut voor Volksgezondheid en Milieゅhygiene, 3720 BA Bilthoven, Netherlands

R. VAN DEN AKKER
A. C. HERKER
A. D. M. E. OSTERHAUS

TRANSMISSION OF AIDS VIRUS AT RENAL TRANSPLANTATION

Sir,—In May, 1985, a 42-year-old man with chronic renal failure was admitted to our hospital with a 6-month history of generalised rash, fever, and malaise. In February, 1984, he had received at another hospital a cadaver kidney graft from a haemophiliac donor who had died of cerebral haemorrhage. Because of irreversible loss of renal function immunosuppressive drugs had been discontinued one month before his May, 1985 admission. He was acutely ill, febrile, and had a widespread vesiculopapular rash with ulcers. His total lymphocyte count was 1000/μl (OKT4:OKT8 ratio 0·9) and his serum was strongly positive for HTLV-III antibodies (Abbott ELISA). Skin biopsy revealed vasculitis with no evidence of Kaposi sarcoma. 2 months after discontinuation of immunosuppression his lymphocyte count was 12000/μl (OKT4:OKT8 ratio 0·97).

The recipient of the other kidney had miliary tuberculosis. Immunosuppressive drugs had been discontinued in December, 1984, but graft function remained normal. This patient was a 52-year-old heterosexual man with no history of drug abuse. In June, 1985, he was HTLV-III antibody positive (Abbott ELISA) with a total lymphocyte count of 1110/μl (OKT4:OKT8 ratio 0·2). Serum from both transplant recipients obtained immediately before transplantation for cross-matching, was available in the tissue typing laboratory. Assay for HTLV-III antibodies was negative in both. One of the patients did not receive blood transfusion, during or after the transplant surgery.

We conclude that both patients were infected by HTLV-III probably transferred in the kidney grafts from the donor. We recommend that potential cadaver donors, especially homosexuals or haemophiliacs, should be screened for HTLV-III infection.

A. E. GOSDEN
P. NORMAN

Nephrology Service, Hospital Mazda Filho and Hospital de Clinicas de Porto Alegre, 90000 Porto Alegre RS, Brasil; and Section of Immunology, Laboratorio Weinsmann, Porto Alegre

CARLOS A. PROMPT
MIRIAN M. REIS
FERNANDO M. GRILLO
JAIME KOPSTEIN
ELENICE KRAMER
REVORIO C. MANFRO
MARCELIO H. MAIA
JANINE M. COMIAN