this institution.[1] However, the inferences we can draw from these are limited because the cases were retrospective and lacked controls, they do not conform to the Centers for Disease Control definition of AIDS (which excludes patients who have received corticosteroids[2]), and allergic and autoimmune phenomena (although not those described in these cases) are frequent manifestations of AIDS.[3-5] Nevertheless, these case-reports should prompt caution in the use of steroids in the large number of persons with AIDS-related complex or with risk factors for AIDS.

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HTLV-III ANTIBODY STATUS AND IMMUNOLOGICAL ABNORMALITIES IN HAEMOPHILIC PATIENTS

SIR,—Fresh and stored sera from 46 healthy haemophiliacs treated with blood products during 1978–84 were tested[1] for antibody to HTLV-III. Samples from 22 of these patients have been included in a study of recipients who have shared batches of factor VIII (FVIII) concentrate with an AIDS patient (Craske J R, Tedder R S, unpublished). 36 patients had haemophilia A (severe, FVIII<1%, in 30); 2 had severe von Willebrand's disease; and 8 had haemophilia B. The T helper lymphocyte subset (OKT4), natural killer cell activity (NK), and serum α_1-interferon (α-IFN) levels were determined[2] in these patients and in 29 healthy controls. Samples were also studied from a patient with severe haemophilia A and AIDS and from five patients with possible HTLV-III related features.

Anti-HTLV-III was not detected in samples collected before 1980. The seropositivity rate then rose to 54% (28/52) by 1984. 15 out of 22 patients who received batches in common with the AIDS patient acquired anti-HTLV-III; these 15 included patients 1–6 (see table). 2 patients who seroconverted in 1980 have remained seropositive; 1 remains in excellent health but the other (patient 2) has clinical abnormalities. In haemophilia A patients mean FVIII infused ranged from 39 to 552 units/kg/year and anti-HTLV-III positivity correlated with the amount of commercial concentrate used ($p<0\cdot0001$). None of 11 patients who received solely or predominantly British FVIII were seropositive. However, 2 patients who received British factor IX seroconverted (confirmed by immunofluorescence).

Data on immune function in relation to anti-HTLV-III status are given in the table. The OKT4 subset was reduced in both seropositive ($p<0\cdot01$) and seronegative ($p<0\cdot05$) haemophiliacs but there was no difference between seropositive and seronegative patients. NK cell activity was lower in seropositive individuals than in seronegative patients ($p<0\cdot001$) and in controls ($p<0\cdot001$). Serum α-IFN was raised in patients ($p<0\cdot01$) but the seronegative and seropositive groups did not differ. Patient 1 who had AIDS displayed grossly abnormal immune function and patients 2 and 4 also had very high levels of α-IFN. All patients with clinical abnormalities had immunological changes and 4 of them had FVIII inhibitors. 7 healthy seropositive patients with haemophilia A also had FVIII inhibitors.

Although the seropositivity rate is lower than that observed amongst haemophiliacs in the United States[3] it is higher than that previously reported in British haemophiliacs.[1] However, our samples were selected in that 22 were from recipients of shared batches of FVIII concentrate which had been administered to the patient with AIDS and 11 patients had FVIII inhibitors. 4 of the 6 symptomatic patients had FVIII inhibitors, in all cases before 1980. Bird and colleagues[4] have suggested that immune stimulation of lymphocytes could increase retroviral replication. Similarly in our patients with FVIII inhibitors there may be an increased sensitivity of helper T lymphocytes and other immunocompetent cells to stimulation by unheated FVIII concentrate. This proliferation could promote retroviral replication after HTLV III infection and eventually lead to lymphopenia and/or the development of HTLV-III related features in these patients. Our observation of a reduction in NK cell activity in the seropositive group may indicate the specific ablation or impairment of this lymphocyte subset by HTLV III.

IMMUNE FUNCTION IN RELATION TO HTLV-III ANTIBODY STATUS IN HAEMOPHILIACS AND CONTROLS (MEAN±SD)

	OKT4 ($\times 10^9$/l)	NK ratio	αIFN (U/ml)
Anti HTLV-III positive (n=23)	0·82±0·36	32±14	0·49±0·26
Anti-HTLV-III negative (n=23)	0·92±0·34	13±11	0·49±0·24
Controls (n=29)	1·29±0·57	13±8	0·26±0·27
*Individual patients**			
1 (AIDS)	0·1	80	8·5
2 (oral candidiasis and herpes zoster†,‡)	0·58	13	6·0
3 (lymphadenopathy)	1·06	40	0·5
4 (squamous malignancies and atypical pneumonia†,‡)	0·45	56	8·6
5 (thrombocytopenia†)	0·43	11·4	–
6 (lymphadenopathy†)	0·8	30	0·8

*Haemophilia A (patients 1–5); von Willebrand's disease (patient 6).
†Indicates antibody to FVIII or von Willebrand factor present before symptoms.
‡Had immunosuppressive therapy (for inhibitors) in 1970.

NK cell function may be enhanced by the addition of IFN in vitro.[5] The high α-IFN levels found in some symptomatic haemophilic patients may reflect a compensatory attempt to maintain NK cell activity after HTLV-III infection.

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ACUTE ILLNESSES ASSOCIATED WITH HTLV-III SEROCONVERSION

SIR,—The report by Dr Cooper and colleagues (March 9, p 539) of twelve patients with acute glandular-fever-like illnesses coincident with seroconversion to LAV/HTLV-III positivity is of considerable interest. We have seen four homosexual patients with an acute glandular-fever-like syndrome including transient tender lymphadenopathy and hepatosplenomegaly which we believe was not caused by the HTLV-III virus, although the antibody test was positive in all four.

Two patients were found, via stored sera, to have been HTLV-III antibody positive for at least six months before their acute illnesses. Both were Paul-Bunnell negative, and VDRL and toxoplasma titres were also negative. Cytomegalovirus (CMV) titres were IgG positive and IgM negative but in both the IgG titre rose four-fold with the acute illness.