ABNORMAL T-LYMPHOCYTE SUBPOPULATIONS ASSOCIATED WITH TRANSFUSIONS OF BLOOD-DERIVED PRODUCTS

Sir,—The T-lymphocyte abnormalities which accompany the acquired immunodeficiency syndrome (AIDS) have also been observed in some patients with haemophilia A, in the presence or absence of opportunistic infections.7,8 Because homosexuality and intravenous drug abuse were not associated with these cases, repeated exposure to lyophilised factor VIII concentrates7,8 with possible transfer of an undefined blood-borne agent(s)9 has been implicated as aetiological factor for these patients' immune dysfunction. Menitove et al.7 and Lederman et al.8 suggest that the risk of developing impaired T-lymphocyte function may be negligible in haemophiliacs treated only with cryoprecipitate or fresh frozen plasma.

We have studied groups of patients repeatedly exposed to lyophilised FVIII concentrates or to other blood products (table). All the patients had a good performance status and were evaluated in the absence of concurrent illnesses. T-lymphocyte subpopulations were counted by flow cytometry and indirect immunofluorescence with monoclonal antibodies OKT3 (pan T cell), OKT4 (helper/inducer T-cells), and OKT8 (suppressor/cytotoxic T-cells).

Haemophiliacs treated with lyophilised FVIII concentrates had a significantly reduced mean T4/T8 ratio compared with age and sex-matched controls. Similarly, T4/T8 ratios were much depressed in von Willebrand's disease, mild haemophilia A, and in hypertransfused patients with sickle cell anaemia. These groups received cryoprecipitate, fresh frozen plasma, or packed red cells exclusively. Mildly decreased T4/T8 ratios have been noted in hypertransfused subjects with β-thalassaemia (P. Gaseon, N. S. Njaung, and others, unpublished), Diamond-Blackfan syndrome, and congenital dyserythropoietic anaemia (table), but cases of AIDS have not yet been reported.

In contrast, those treated with prothrombin

Figure 1—Tissue retrieved from paraffin-embedded lymph node.

Note a TRS (S) and two TRF (R) (×35 750.)

Figure 2—Lymph node lymphocyte with TRF (arrows).

(×200.)