ALTERED IMMUNOLOGY IN HAEMOPHILIA

SIR,—7% of severely affected, multitransfused haemophiliacs acquire antibodies to factor VIII. What predisposes to antibody development in an individual patient is unknown, and the possibility that such patients might show differences in proportion of T cell helper or suppressor subsets in peripheral blood prompted a small survey. Sixteen patients with severe haemophilia A, half with factor VIII antibodies, were tested.

Eleven patients showed an abnormality of T cell proportion (table), eight having a reversal of OKT4:8 ratio. Of these, five had depressed helper cells, and three raised suppressor cells. There did not appear to be any correlation with the presence or absence of factor VIII antibodies.

We know that transfusion of patients undergoing renal transplantation is associated with improved graft survival and it has been suggested that transfusion is immunosuppressive in an as yet unidentified way. Until recently there has been no suggestion of a similar immunosuppression in the haemophilic population. However, an immunosuppressive syndrome associated with T cell subset reversal has now been noted in a small population of multitransfused, heterosexual haemophiliacs in New York (M. Hilgartner, personal communication). The syndrome shows similarity with that affecting homosexual males in the United States and named acquired immune deficiency syndrome (AIDS). Clinically AIDS presents with lymphadenopathy, weight loss, chronic diarrhoea, and sometimes with overwhelming infection or malignancy. The six haemophiliacs we know of had *Pneumocystis carinii* pneumonia.

ABSOLUTE T CELL NUMBERS OF OKT4 AND OKT8 POSITIVE CELLS IN HAEMOPHILIC PATIENTS

Patient	Total T cells ($\times 10^9$/l) positive for monoclonal T cell antisera		
	OKT4	OKT8	OKT4:OKT8
1	0·53	0·37	1·4
2	*0·43*	0·35	1·2
3*	1·3	0·78	1·6
4	0·57	0·41	1·4
5*	0·85	0·46	1·8
6	*0·34*	0·34	1·0
7	*0·41*	0·53	*0·8*
8	1·1	*1·3*	*0·9*
9*	*1·7*	0·73	2·3
10*	0·81	0·63	*1·3*
11*	*0·43*	0·59	*0·7*
12	*0·43*	0·7	*0·6*
13*	0·58	*1·6*	*0·4*
14	0·65	*1·1*	*0·6*
15*	*0·4*	0·88	*0·5*
16*	*0·41*	0·78	*0·5*
Normal range	0·5–1·3	0·16–0·88	1·0–3·9

Abnormal values shown in italic type.
*With antibodies.

The alterations in T cell subsets in our survey may simply reflect temporary altered immune status in multitransfused individuals. But half our patients without T cell ratio reversal had been exposed to equally large quantities of blood. It could be that T cell ratio reversal is a normal defence mechanism to antigenic load, and that the patients without reversal show an abnormal lack of response.

[redacted] Since all our patients [redacted] blood products of American origin, [redacted] our findings do highlight the need for continued careful surveillance of the severely affected haemophilic population.

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