

Letters to the Editor

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Sir,

Is mite hypersensitivity sex linked in children?

About 150 prepubertal children aged 2 to 12 years were examined in a day-care unit for suspected atopic disease or asthma.

An increase of total IgE level (Phadebas IgE PRIST®) was found in fifty: eleven girls and thirty-nine boys.

Specific IgE antibody to *Dermatophagoides pteronyssinus* (RAST) was found in twenty-seven children: twenty-six boys and only one girl.

This sex ratio was significant ($P < 0.001$) in the total number of atopics.

It is well known that asthma and other atopic diseases are more frequent in male children. Among other hypotheses it has been suggested that the pathogenetic mechanism of atopy is related to a secretory IgA defect in the first months of life, but this transient immunodeficiency is as frequent in girls as in boys; so that this theory does not explain the sex ratio of atopy.

I suggest two (or more) independent mechanisms for the pathogenesis of asthma and atopic diseases:

The first, may be related to IgA deficiency in both sexes and related to animal dander or pollen hypersensitivity;

The second, due to another mechanism with a strong male linkage related to *Dermatophagoides pteronyssinus* hypersensitivity.

I would like to know whether there are any paediatricians or allergists who have experience which might or might not agree with this. Is mite hypersensitivity sex linked in children and/or in adults?

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(27 October 1978)

Sir,

Blood groups and reaginic hypersensitivity

Many studies have been carried out to demonstrate a correlation in allergic patients of a genetic marker. Most are based on clinical information. So far, no convincing results

have been obtained, except that allergic people belonged more to A than to the other blood groups (Filsoufi, 1975).

New hopes were raised by Levine & Stember (1972) when they published their first data on leucocyte HLA groups, but with so far little support. We wish to present preliminary results on 117 children and adolescents, seventy-nine male and thirty-eight female, suffering from: asthma; a presumed allergic respiratory disease; skin allergy; and a small number with non-allergic disease. All children had a blood group test, D Rh factor test, and RAST for specific IgE antibody to *Dermatophagoides pteronyssinus*, cat dander, egg white, *Penicillium notatum*.

Statistical tests (χ^2 Test with Yates' correction if necessary) showed a significant increase ($\chi^2 = 7.4$; $P < 0.01$) in A blood group of those positive only to *D. pteronyssinus* and 0 blood group (χ^2 corrected = 4.2; $P < 0.05$) in children positive only to cat dander. No differences were found in D Rh factor.

Those with no positive responses, or with sensitivity to egg white or *P. notatum* or with sensitivity to several allergens did not show similar blood group predominance.

We have found that in children specific IgE antibodies detected by the RAST appear closely linked to blood groups.

Non sensitive								
RAST 0 or 1		29	32	4	3	68	57	11
Total sensitive		21	18	7	3	49	43	6
RAST $\geq$ class 2	<i>D. pteronyssinus</i>	15	5	3	1	24	21	3
	Cat dander	1	6	1	0	8	7	1
	Food allergens	2	2	1	1	6	5	1
	<i>P. notatum</i>	1	0	0	0	1	1	0
	Two or more allergens	2	5	2	1	10	9	1
Blood group		A	O	B	AB	Total	RhD +	d-

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References

- FILSOUFI, J. (1975) Etude statistique des rapports entre les maladies allergiques et les groupes sanguins. *Revue Française d'Allergologie*, **15**, 115.
- LEVINE, B.B. & STEMBER, R.H. (1972) Ragweed hay fever, genetic control and linkage to h1 A haplotypes. *Science*, **178**, 1201.

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