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IgE-mediated Anaphylaxis to Mustard

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Widström L, Johansson SGO. IgE-mediated anaphylaxis to mustard. Acta Derm Venereol (Stockh) 1986; 66: 70–71.

A young woman had recurrent urticaria and angioneurotic edema following ingestion of mustard and mayonnaise. IgE-mediated allergy to mustard seeds and seeds of botanically related plants was confirmed by RAST. *Key words: Urticaria; Crusiferae; RAST.* (Received June 20, 1985.)

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In 1980 Panconesi (1) described a case of anaphylactic shock following ingestion of pizza. Allergy to mustard was proven by intradermal skin tests and RAST (2) to extracts of mustard seeds. Contamination of the pizza with mustard was suspected.

CASE REPORT

A 25-year-old woman came to us in March 1984, because of recurrent urticaria. As a child she had had severe atopic dermatitis and reacted with rhinitis and swelling of the throat when eating fish or egg. Now her dermatitis has almost cleared and she can eat both fish and eggs without trouble. She still gets rhinitis, when exposed to cats or dogs.

From August 1981, to February 1984, she had had six episodes of acute severe generalized urticaria and angioneurotic edema of the face and the neck. On all occasions except the last one she had ingested either mustard or mayonnaise just before the appearance of the symptoms. The last attack of urticaria occurred after eating a hot dog with ketchup purchased from a hot dog stand in the street.

Allergy to mustard was suspected. Besides eggs, oil and vinegar mustard is usually an ingredient of mayonnaise. At the last attack the patient had not consciously eaten mustard or mayonnaise but it is very likely that the hot dog was contaminated with mustard from the utensils used in the hot dog stand. In Sweden, at least, hot dogs are usually eaten with large amounts of mustard and there must therefore be a great chance of contamination.

Mustard is made from the seeds of two plants of the Crusiferae family, namely *Brassica nigra*, black mustard, and *Brassica alba*, white mustard. Closely related to mustard are several vegetables such as cabbage, (*B. olerata capitata*), rutabaga (*B. napobrassica*) and rape (*B. napus*).

As Panconesi's patient developed an anaphylactic reaction when skin tested, we decided to analyse for possible IgE antibodies to mustard by RAST. A blood sample for immunological tests was drawn in March 1984, using the Phadebas IgE PRIST (Pharmacia Diagnostics, Uppsala), the total IgE concentration was found to be 350 kU/l.

Extracts of ground seeds of *B. nigra*, *B. alba*, *B. napus* and eatable parts of various

types of cabbage, 1/10 w/v in saline were coupled to CNBr-activated filter paper discs (5 µl per disc), which were used to determine IgE antibodies by RAST essentially as described earlier (3).

The patient's serum gave values of 7.6 and 6.1 PRU/ml (RAST class 3) (Phadebas RAST units, Pharmacia Diagnostics, Uppsala), respectively, to discs with *B. nigra* and *B. alba*. The results for normal sera and sera with high IgE levels (approximately 3000 kU/l) were less than 0.35 PRU/ml (negative RAST). RAST class 3 results were also obtained with rape-seeds while RAST was negative to cabbage. Thus, significant concentrations of IgE antibodies to mustard-related allergens were present in the patient's serum.

On the basis of the case history and the RAST results the patient was recommended to avoid all kinds of food that might contain mustard and she has had no further attack of urticaria.

ACKNOWLEDGEMENTS

This work was supported in part by grants from the Swedish Medical Research Council (grant No. 16X-105), the Swedish Asthma and Allergy Association, the Swedish National Association against Heart and Chest Diseases and the Swedish Work Environment Fund.

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Red Scalp Hair Turning Dark-brown at 50 Years of Age

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Juhlin L, Ortonne JP. Red scalp hair turning dark-brown at 50 years of age. Acta Derm Venereol (Stockh) 1986; 66: 71–73.

We report on a man whose scalp hair was reddish since childhood but changed into dark-brown after the age of 50. His pubic hair and beard remained carrot coloured. A high level of arsenic in his scalp hair seemed to be a possible cause of the change from pheomelanogenesis to eumelanogenesis. *Key words: Hair colour; Arsenic; Pheomelanin.* (Received June 14, 1985.)

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Changes in hair colour in adults usually occur with age or may be induced by drugs such as antimalarials. In these cases there is a greying or lightening of the hair (1). It is known that red-haired children often become brown-haired, sandy-haired or auburn-haired as adults (2). Here we describe similar changes in an adult, a phenomenon that has not been reported in the literature before.