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B. AÑIBARRO, F. J. SEOANE
C/ Arzobispo Morcillo 42 9C
28029 Madrid
Spain

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Oral allergy syndrome to bird meat associated with egg intolerance

THE occurrence of allergic reactions related to the ingestion or inhalation of bird products has been previously described. Egg intolerance, mainly due to egg-yolk livetins, in association with respiratory sensitization to bird-serum antigens, has been designated the "bird-egg syndrome" (1-5). Here we report a child with oral allergy syndrome due to sensitization to bird meat, in association with egg intolerance.

■ An 8-year-old boy with family history of atopy and personal history of fish allergy was referred to our service for allergologic investigation. He experienced itching of his mouth and throat immediately after the ingestion of bird meat (chicken, quail, and

turkey). Furthermore, the ingestion of egg immediately resulted in nausea and vomiting. He said that he had never experienced respiratory symptoms, and birds were not present in his usual environment.

Physical examination in our patient was unremarkable. The blood count and chemistry were in the normal range. Skin prick-by-prick tests performed with egg yolk, egg white, chicken meat, quail meat, and turkey meat were negative except for quail meat. Skin prick tests (SPT) with extracts of feather mix, quail meat, turkey meat, chicken meat, and partridge meat (ALK-Abelló, Madrid, Spain) were all positive. No oral challenge test was attempted.

The total IgE serum level was above 300 IU/ml. Specific IgE serum levels (Pharmacia Phadebas RAST, Uppsala, Sweden) were determined by using BrCN-activated disks and then sensitized, as previously described (6), to different extracts (quail meat, turkey meat, partridge meat, chicken meat, chicken feathers, egg white, and egg yolk). In our case, the results appeared to be negative for chicken feathers and egg yolk, and positive for quail meat (1.5 PRU/ml), turkey meat (1.5 PRU/ml), partridge meat (1.8 PRU/ml), chicken meat (1.9 PRU/ml), and egg white (2.6 PRU/ml).

■ The bird-egg syndrome is mainly described in adults (1, 3, 4), but also in children (2). This syndrome is elicited when exposure to a bird causes respiratory symptoms and egg intolerance appears secondarily. It has been suggested that egg intolerance in adults is mainly due to sensitization to egg-yolk livetins and can be provoked by inhalation of pet bird dander. Thus, it must be distinguished from the common egg-white allergy of atopic children

(1). Añibarro et al. (2) described a case of bird-egg syndrome in a child in whom egg allergy differed from the typical forms of egg allergy in children (late onset, greater prevalence of digestive and respiratory

than cutaneous symptoms, and greater sensitization to egg yolk than to egg white). It is assumed that α -livetins (chicken serum albumin) leads to cross-sensitization and consequently to the bird-egg syndrome (3, 4), and that albumin involved in the bird-egg syndrome also induces sensitization to bird meat (1, 2, 5).

In spite of the heterogeneity of SPT and serum specific IgE levels, our results suggest an IgE-mediated mechanism for oral allergy syndrome elicited by bird meat; in the same way, allergy to

A child's allergic reaction to poultry meat may have been caused by IgE antibodies to egg white.

egg white seems to have been the cause of the egg intolerance in our case. We consider that our patient combined different atypical features both of the egg-allergy pattern in children (late onset, oral allergy syndrome without cutaneous symptoms) and of the bird-egg syndrome (greater sensitization to egg white than to egg yolk, absence of respiratory symptoms, and food allergy due to the ingestion of the meat of different birds).

Since cross-reactivity is the mechanism causing the bird-egg syndrome, other routes than the respiratory one may be involved. In our patient, the main route of sensitization seems to be the digestive one. We think that our patient may have had an atypical case of bird-egg syndrome, or "bird-egg-like" syndrome, the clinical features of which included oral allergy syndrome to bird meat, and digestive intolerance of egg, without respiratory symptoms.

Key words: allergy; bird meat; chicken; children; egg white; oral allergy syndrome; quail; turkey.

M. M. ESCRIBANO*, P. SERRANO, F. J. MUÑOZ-BELLIDO,
A. DE LA CALLE, J. CONDE
*C/ Angel Ganivet, n° 13, 4° A.
E-18009 Granada
Spain

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Contact urticaria and shock to hair dye

THE use of hair dyes is common in our society. Allergic reactions to constituents of hair dyes, in the form of contact dermatitis, are well known and not rare (1, 3, 4). Although a few cases of

immediate hypersensitivity reactions to hair-dye constituents have been described (2, 6, 7), life-threatening systemic reactions due to these products are exceptional, and, to our knowledge, only one case has been reported to date (5).

Permanent oxidation hair dyes are the most frequently used professional hair dyes. They consist of a separate coloring (containing paraphenylenediamine [PPD] or related chemicals, such as paratoluenediamine [PTD], and of a developing solution containing hydrogen peroxide [H_2O_2]). The hair shaft is dyed, upon mixture of the two components, by the oxidized coloring. We report the case of a recurring severe immediate systemic reaction after application of a commercially available hair dye, currently used by professional hairdressers.

■ A 45-year-old woman developed, 30 min after dye application at her hairdresser's, extensive urticarial lesions starting on the scalp and face, followed by abdominal cramps, watery diarrhea, vomiting, dysphonia, and loss of consciousness. She was comatous when brought into the emergency unit (Glasgow scale: 3). After receiving epinephrine, prednisolone, and clemastine, her condition rapidly improved. She had suffered from atopic dermatitis during childhood, and had had seasonal

Recurring severe immediate systemic reaction to a hair dye containing an oxidation product of paratoluenediamine.

allergic rhinitis for the last 3 years. Her total serum IgE, at the time of the tests, was 118 UI/l. Fifteen years before, she had attended a hairdressing school for 1 year without any health problem. For the last 6 years, she regularly had her hair dyed, and started having contact urticaria, localized to the scalp and neck, during the last 3 years. Over the previous 2 years, she developed four systemic reactions (urticaria with asthma, including another shock after application of hair dye).

■ Open patch tests with the diluted hair dye, Goldwell Top Chic Black (1/64 and 1/128 in water), were negative. A prick test done with the dye diluted at 1/128 showed a positive reaction (+++, wheal diameter: 9×9 mm) at 20 min. Prick tests with all of the individual dye constituents (kindly provided by Goldwell AG, Darmstadt, Germany) with concentrations ranging from 1/128 up to 1/4 remained negative. Oxidation products of the individual constituents were tested by adding hydrogen peroxide (H_2O_2), at a final concentration of 1/128

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