
Letters to the editor

THE SIGNIFICANCE OF CHICKEN MEAT ALLERGY WITHOUT SENSITIZATION TO EGG PROTEINS

To the Editor:

We have read with interest the article of Vila et al¹ regarding a case of oral allergy syndrome (OAS) induced by the ingestion of chicken meat.

Although OAS is commonly elicited by fresh foods and vegetables in subjects with pollen allergy, in our experience the intake of other foods may sometimes induce this disorder.^{2,3}

The occurrence of OAS without systemic manifestations after the ingestion of chicken meat is really a very uncommon event; however, we think that the most important clinical finding in the case report of Vila et al¹ is the absence of egg hypersensitivity. In fact, patients sensitized to egg proteins exhibited also cutaneous and respiratory symptoms after exposure to bird and/or chicken derived materials (eg, feathers) caused by a cross-reactive allergen (α -livetin, that is a chicken serum albumin).⁴

Recently we have published a case of chicken meat allergy with severe cutaneous and respiratory symptoms after consumption of small quantities of this food and/or inhalation of chicken-derived materials in a 23-year-old woman without egg allergy.⁵ Cutaneous and serologic diagnostic tests showed an intensive sensitization only to chicken allergens. Further, the patient experienced a moderate bronchial obstruction after performing a prick-prick test with the offending food (for this reason we did not perform a challenge test with chicken meat).

Sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-

PAGE) and IgE immunoblotting experiments showed a strong IgE binding of the patient's serum for chicken meat at molecular weights of 40,25,10, and 5 kD, a weak IgE binding with egg yolk protein at a molecular weight of 65 kD and chicken feather protein at a molecular weight of 7kD. On the contrary, pooled serum from 14 patients with bird-egg syndrome revealed strong IgE binding with egg yolk, chicken feather, and chicken serum albumin (70 kD).

Our study suggests that new proteins might be expressed during evolution from egg to chicken since chicken egg proteins (yolk and white) do not contain the main allergens found in chicken meat.

Unfortunately, Vila et al¹ in their case report did not perform diagnostic tests for feather allergens and SDS-PAGE/immunoblotting experiments.

We suggest performing also these procedures if adequate amounts of patient's serum are still available. In this way, it should be possible to confirm our findings and demonstrate the presence of different proteins that could explain the occurrence of chicken meat allergy without sensitization to egg proteins.

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2. Liccardi G, D'Amato G. Oral allergy syndrome in a subject with a highly relevant monosensitization to egg. *J Allergy Clin Immunol* 1994;94:931–932.
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Response:

In answer to the "Letter to Editor" by Gennaro Liccardi et al about our article "Chicken meat induces oral allergy syndrome: a case report" we find this is a very interesting remark indeed.

Unfortunately immunoblotting was not performed as we did not have serum of the patient available.

We do appreciate the comments by Gennaro Liccardi et al that we will take into account when performing immunoblotting.

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