

Correspondence

Reply

To the Editor:

Asero and Antonicelli¹ raise 2 questions regarding our recent report² on wheat lipid transfer protein (LTP; Tri a 14) as a major allergen associated with baker's asthma.

First, do patients with baker's asthma who are sensitized to wheat LTP tolerate the ingestion of wheat-based foods? Most patients with baker's asthma are able to ingest wheat products without symptoms, as reviewed by Palosuo.³ Moreover, subjects with asthma induced by rice powder inhalation and sensitized to rice LTP tolerate the ingestion of cooked rice without any adverse effects.⁴ In the case of Tri a 14 and besides putative differences in the immunologic responses triggered by inhalation versus ingestion of the allergen, its allergenic potency can be drastically different in raw flour and cooked, wheat-derived foodstuffs. The IgE recognition of Tri a 14 in raw flour, but not in cooked flour, by some sera from patients with allergic reactions after the ingestion of wheat products⁵ and preliminary results suggesting its inactivation in bread and pasta treated with high heat (Sanchez-Monge et al, unpublished data) support this hypothesis.

The second question regards the allergens responsible for wheat flour/fruit (melon and kiwi) cross-reactivity. All patients sensitized to melon (5/40), kiwi (7/40), or both showed only oral allergy syndrome (except 1 subject sensitized to kiwi who also had contact urticaria). Profilin is a major melon allergen susceptible to pepsin digestion,⁶ but to the best of our knowledge, it has been associated neither with baker's asthma nor with wheat/melon cross-reactivity. Regarding kiwi, our available data (Palacin et al, unpublished data) indicate that cross-reactive carbohydrate determinants and thiol proteases homologous to Act d

1 are responsible for wheat/kiwi cross-reactivity in some patients with baker's asthma.

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REFERENCES

1. Asero R, Antonicelli L. Airborne allergy to wheat lipid transfer protein without food allergy? *J Allergy Clin Immunol* 2008;■■■■■■■■.
2. Palacin A, Quirce S, Armentia A, Fernández-Nieto M, Pacios LF, Asensio T, et al. Wheat lipid transfer protein is a major allergen associated with baker's asthma. *J Allergy Clin Immunol* 2007;120:1132-8.
3. Palosuo K. Update on wheat hypersensitivity. *Curr Opin Allergy Clin Immunol* 2003;3:205-9.
4. Enrique E, Ahrazem O, Bartra J, Latorre MD, Castelló JV, de Mateo JA, et al. Lipid transfer protein is involved in rhinoconjunctivitis and asthma produced by rice inhalation. *J Allergy Clin Immunol* 2005;116:926-8.
5. Pastorello EA, Farioli L, Conti A, Pravettoni V, Bonomi S, Iametti S, et al. Wheat IgE-mediated food allergy in European patients: alpha-amylase inhibitors, lipid transfer proteins and low-molecular-weight glutenins. *Int Arch Allergy Immunol* 2007;144:10-22.
6. López-Torrejón G, Crespo JF, Sánchez-Monge R, Sánchez-Jiménez M, Alvarez J, Rodríguez J, et al. Allergenic reactivity of the melon profilin Cuc m 2 and its identification as major allergen. *Clin Exp Allergy* 2005;35:1065-72.

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