

Correspondence

Airborne allergy to wheat lipid transfer protein without food allergy?

To the Editor:

In their recent article, Palacin et al¹ conclude that wheat lipid transfer protein (LTP) is significantly associated with baker's asthma. Although this finding is very interesting, we think that some clinical aspects are worth discussing further. As the authors correctly note, LTPs are major cross-reacting allergens in plant-derived foods. Notably, along with many cases of allergy to fruits (particularly peach and other Rosaceae), tree nuts, and vegetables, several cases of severe allergy to cereals, namely maize² and barley,^{3,4} have been reported in patients allergic to LTPs. Palacin et al¹ report that all patients in their series tolerated the ingestion of wheat-based foods, although a history of peach allergy was present in several cases and despite the fact that cross-reactivity between peach and wheat LTPs was clearly demonstrated in some of them. This fact is rather surprising. Because LTPs are extremely heat and pepsin stable, one could expect some sort of wheat-induced food allergy, at least in a minority of cases. Do the authors have an explanation for the absence of allergy to ingested wheat-based products? Should we consider patients with LTP-induced baker's asthma at risk for severe allergic reactions on ingestion of bread or pasta?

Another interesting aspect is sensitization to plant foods other than cereals. Table I¹ shows that 5 patients reported oral allergy syndrome from peach and showed sensitization (Oral allergy syndrome as well?) to melon and kiwi. As far as we know, neither

melon nor kiwi allergy has been associated with sensitization to LTP. In particular, melon is frequently associated with profilin sensitization.⁵ Is there any possibility that profilin, a plant panallergen, played a role in inducing baker's asthma, at least in some of these patients?

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REFERENCES

1. 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.
2. Pastorello EA, Farioli L, Pravettoni V, Ispano M, Scibola E, Trambaioli C, et al. The maize major allergen, which is responsible for food-induced allergic reactions, is a lipid transfer protein. *J Allergy Clin Immunol* 2000;106:744-51.
3. Curioni A, Santucci B, Cristaudo A, Canistraci C, Pietravallo M, Simonato B, et al. Urticaria from beer: an immediate hypersensitivity reaction due to a 10-kDa protein derived from barley. *Clin Exp Allergy* 1999;29:407-13.
4. Asero R, Mistrello G, Roncarolo D, Amato S, van Ree R. A case of allergy to beer showing cross-reactivity between lipid transfer proteins. *Ann Allergy Asthma Immunol* 2001;87:65-7.
5. Asero R, Mistrello G, Roncarolo D, Amato S, Zanoni D, Barocci F, et al. Detection of clinical markers of sensitization to profilin in patients allergic to plant-derived foods. *J Allergy Clin Immunol* 2003;112:427-32.

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