Food induced anaphylaxis – Where did the food products come from and how much is consumed before reactions occur?

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Background and Aim: Food is one of the most common elicitors of anaphylaxis. Even small amounts of a food allergen can cause severe allergic reactions. Based on data from the NORA network, we aimed to analyze the source and amount of food ingested causing the anaphylactic episode.

Methods: The European data from the Network for Online Registration of Anaphylaxis (NORA) was analyzed, restricted to cases of food-induced anaphylaxis.

Results: 2,204 cases of food-induced anaphylaxis were registered between June 2011 and April 2016. The detailed questions for food induced anaphylaxis were answered in 1,460 cases. Of these, 843 cases occurred to non-packed foods, and 617 cases to pre-packed foods. For 744 the source of food elicitor was unknown. The origin of non-packed products was known in 72%, mostly from supermarkets (n=116), buffets (n=108) and catered foods (n=105).

The origin was known in 78% for pre-packed foods namely cereal bar, peanut puffs or hazelnut spread. The responsible food allergen was listed in the list of ingredients in 89%. The amount of food causing the reaction was documented in 60% of all cases, more often when children were affected. In children, one tea spoon was the most frequently estimated amount, and a plate in adults.

Discussion and Conclusion: Both, non- and pre-packed foods were frequent sources of allergens causing anaphylaxis. Despite, the allergen was explicitly stated in the list of ingredients in the majority of pre-packed foods, anaphylaxis occurred. Therefore, labelling alone is not sufficient to protect from severe reactions. Patients with food-induced anaphylaxis need detailed counselling about food allergen sources. Additionally, the differences in the amount of food allergen might not be age but rather depending on the major food allergen in this age group (children - peanut and adults - wheat).