

Snack seeds allergy in children

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Snack seeds, particularly sunflower and pumpkin seeds, are popular and often consumed by children. Thus, peeled sunflower seeds, after having been roasted, are eaten not only as snacks, but may also be added to muesli or used as a bread ingredient. Roasted pumpkin seeds, also known as *pepitas*, are eaten in a similar way. Despite frequent consumption, only a few isolated cases of anaphylactic reactions are reported in the literature (1–4), mostly in the adult population. In this study, we describe three cases of severe snack seeds allergy in children, as an uncommon allergy.

Case 1: A 6-year-old girl, with a history of fish allergy and atopic dermatitis, was referred after having an episode of oral itching, lips and face angioedema, vomiting, and dyspnea within 5 min after consuming a handful of sunflower seeds. She required treatment with intravenous (IV) antihistamines, IV methylprednisolone, and intramuscular (IM) adrenaline. No other foods or beverages, or medication was consumed. Skin prick-to-prick testing with sunflower seeds was negative, but hypersensitivity to sunflower seeds was demonstrated by positive specific IgE (0.51 kU/l) by UniCAP (Phadia AB, Uppsala, Sweden). An open oral challenge test to sunflower seeds was positive

after a low dose of sunflower seeds (2 g), confirming the diagnosis.

Case 2: A 7-year-old boy, with mild atopic dermatitis and no known allergy, experienced two episodes of generalized urticaria and facial angioedema and a third episode with angioedema, wheezing, and acute dyspnea within 15 min after repeatedly consuming small amounts of sunflower seeds. Allergy was confirmed by a positive prick-to-prick test to sunflower seeds, positive specific IgE (3.48 kU/l), and a positive oral challenge test. After ingesting 14 g of sunflower seeds, he developed a severe systemic reaction with angioedema, urticaria, and cough, and required treatment with IV antihistamines, IV methylprednisolone, and IM adrenaline.

Case 3: An 11-year-old boy, with a history of fish allergy and atopic dermatitis, presented an anaphylactic reaction few minutes after eating pumpkin seeds. The prick-to-prick test with pumpkin seeds was negative, but a positive oral provocation test confirmed the diagnosis, as a severe reaction with urticaria, angioedema and asthma was induced after 10 g of pumpkin seeds. By history, he tolerated fruits belonging to the Cucurbitaceae family.

Sunflower seeds allergy is rarely described in the literature, particularly in children (1–3). This allergy has been reported previously in adults owning birds fed sunflower seeds (1). Allergy to sunflower oil had also been described (5, 6), but most patients with sunflower seeds allergy tolerate sunflower oil containing only traces of seed proteins. No pumpkin seeds allergy in children was previously described in the literature (4). However, these two foods are frequently consumed and can be hidden in a lot of recipes. Allergic reactions observed in our three patients can be graded as severe; thus, it is important to consider allergy to snack seeds (sunflower and pumpkin seeds), particularly in patients with an unclear history of anaphylaxis even in the

presence of negative skin tests. A complete allergy work-up, including an oral provocation test, should be envisaged for the diagnosis of suspected snack seeds allergy followed, if the diagnosis is confirmed, by a strict eviction. As more health foods are trendy, these case reports documenting severe allergic reactions to seeds may gain importance, particularly in children.

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