Almond and peanut allergy: how commonly sensitised and how commonly reactive?
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Introduction: Tree nut and peanut allergy are responsible for a large number of severe IgE-mediated reactions. Almond is widely used in manufactured and homemade sweets or as a snack, while peanuts, alone or in other products are increasingly consumed in the Greek diet.

Aim: We aimed to assess sensitization and reactivity patterns to peanut and almond in children with a reported immediate reaction after consuming nuts or peanuts (cashew, pistachio, walnut, hazelnut, peanut and almond).

Method: We retrospectively studied data on sensitization patterns by means of skin prick tests (SPTs) and specific (s) IgE in children with symptoms suggestive of IgE mediated allergic reaction following consumption of tree nuts or peanut, confirmed by positive IgEs and/or SPTs, visiting our Unit between 2012 and 2015.

Results: 204 children were included, 136 males, mean aged 8.2 ±3.2 years, in whom 264 reactions were recorded. The most common provocative agent was pistachio (24.9%) and cashew (24.5%), while hazelnut and walnut were associated with 16.1% and 15.4% of the reactions respectively. Almond was the least reported (2.7%, n=7), followed by peanut (13.6%, n=36).

Among the 7 patients with a reported reaction to almond sIgE was 27.4 kU/l (SE=12.31), while SPT max diameter was 5 mm [3.22, 6.77].

93 of the sensitized children to almond (with no reported reaction), had sIgE of 2.6 kU/l [1.75, 3.45], while SPT max diameter was 5.16 mm [4.68, 5.64]. Open food challenges (OFCs) in this population were negative.

36 children with a reported peanut reaction, had sIgE to peanut 45.93 kU/l, 95% CI [31.75, 65.11] and SPT and max diameter was 10.8 mm [9.12, 12.49].

53 of the sensitized children to peanut (with no reported reaction), had sIgE of 2.32 kU/l [1.57, 3.07] while SPT max diameter was 4.6 mm [3.96, 5.25]. Open food challenges (OFCs) in this population were negative.

To notice, a large proportion (50%, n=102) of our study population was sensitized to almond; although small number reported reaction. Regarding peanut, 48.5% (n=99) of the total population were sensitized with slightly more than one third of that group (36.7% of the peanut sensitized children) reporting immediate type of reaction.

Conclusion: Almond and peanut have a considerably high sensitization rate among children visiting our Unit with reaction to nuts, however true reactors were only few. Peanut reactions are less frequent than these to tree nuts, however cannot be overlooked.