

Resolution of peanut allergy

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Peanut allergy is generally believed to be permanent.¹ In 1998, Hourihane et al² reported on 22 cases of "resolved peanut allergy," which was defined as patients with "a clear history of a reaction to peanut" in whom "a formal challenge with peanuts or peanut butter gave negative results." Fifteen of these 22 patients ("resolvers") were selected for further study because of the availability of age- and sex-matched control subjects ("persisters") with positive skin test results and positive ingestion challenge results with peanut. Five of the resolvers had small positive skin test results to peanut, and two had elevated serum IgE to peanut. None of the resolvers had skin tests performed at the time of their original reaction to peanut. The authors acknowledged that "some of the resolvers may never have had peanut allergy," and in a subsequent letter, David³ noted that the Hourihane "paper contains no proof that those with 'resolving' peanut allergy ever had peanut allergy, so caution is needed about the suggestion that some patients with peanut allergy grow out of the problem."

CASE REPORT

The parents of an 8-month-old girl reported that about 30 minutes after her first known ingestion of peanut butter, she experienced a total body rash described as consisting of red, raised welts. She had no other symptoms, but the rash was concerning enough that her parents took her to the emergency department, where the rash resolved spontaneously. Although the child had no prior known exposure to peanut products, she was breast-fed, and her mother reported eating a large amount of peanut butter. A skin prick test with a commercial peanut extract caused a positive response (5-mm wheal and 20-mm flare with pseudopods) compared with a positive histamine control response (5-mm wheal and 18-mm flare) and no

reaction to a negative diluent control. She was advised to strictly avoid peanut ingestion and given oral antihistamine and injectable epinephrine in case of an accidental ingestion. At the age of 3 years and 4 months, she had an accidental ingestion of a cereal that listed one ingredient as "peanut flour" and had no reaction. Her parents thus returned to the clinic to see whether she had outgrown her peanut allergy. Skin testing with both commercial peanut extract and a crude extract made from peanut butter elicited negative results (again with appropriate positive and negative controls). She was then openly challenged with ingestion of peanut butter without any reaction.

DISCUSSION

To diagnose peanut allergy, one needs a history consistent with a mast cell-mediated reaction shortly after ingestion of peanut and evidence of IgE antibody to peanut. By these criteria, this child was allergic to peanut at age 8 months. Given her now negative skin test result and tolerance of peanut ingestion, she is clearly not currently allergic to peanut and appears to have outgrown this allergy. Her parents have been advised that they may reintroduce peanut products into her diet but to continue to be prepared, for the time being, to treat a reaction.

Although prior studies¹ and even the article by Hourihane² suggest that peanut allergy is usually life-long, this patient suggests that in rare cases the allergy can in fact resolve. It will be interesting to see whether peanut allergy redevelops in this child. Given the large burden that peanut avoidance imposes on children and families (eg, reading labels and carrying epinephrine), it would seem reasonable to repeat peanut skin tests in children allergic to peanut at some interval, especially if they believe they have had uneventful accidental ingestions in the interim.

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