Food Allergy in Kids Not Being Optimally Diagnosed

Fran Lowry

November 14, 2011 (Boston, Massachusetts) Oral food challenges are the gold standard for diagnosing food allergies in children, but only a small fraction of kids in the United States are getting them, researchers reported here at the American College of Allergy, Asthma & Immunology 2011 Annual Scientific Meeting.

As a result, it is likely that childhood food allergy is seriously underdiagnosed, Ruchi Gupta, MD, from Northwestern University Children's Memorial Hospital in Chicago, Illinois, told *Medscape Medical News*.

"Guidelines just came out in March of this year from the National Institutes of Health NIAID [National Institute of Allergy and Infectious Diseases] stating that oral food challenge is the proper test to diagnose food allergy, along with medical history and positive skin and blood testing," Dr. Gupta said.

"Oral food challenge solidifies the fact that the child does indeed have that particular food allergy. It is also a way for us to determine whether they do not or whether they have become tolerant. In our study, just one fifth of the kids had one."

Dr. Ruchi Gupta

Dr. Gupta and her colleagues conducted a randomized cross-sectional survey of American households from June 2009 to February 2010. Respondents were 18 years and older who lived in households with at least 1 child younger than 18 years and who could complete the survey in Spanish or English.

The survey involved 40,104 children; of these, investigators identified 3339 children with food allergy.

A formal physician diagnosis of food allergy was made in 61.5% of these children. Of these, 47% had a skin test and 40% had a blood test for food allergy. However, an oral food challenge was done in just 15.6% of children; it was done more commonly if the child had a severe food allergy or had multiple food allergies, Dr. Gupta said.

Formal diagnoses were most frequently confirmed by oral food challenge for milk allergy (22.4%), soy (19.2%), peanut (16.1%), wheat (15.5%), shellfish (14.4%), tree nut (12.6%), egg (12.4%), sesame (11.2%), and fin fish (9.1%).

"Overall, what this tells us is that food allergy is not being diagnosed optimally and oral food challenges are definitely not being done enough," Dr. Gupta said.

However, she added, the test can be cumbersome for busy practitioners to do. This might be one reason why oral challenge is not used as often as it should be.

"This lack of use is understandable because oral food challenges take a long time for physicians to do. A test can take a couple of hours, and that ties up a room for a long time. Plus, reimbursements are poor, so there are lots of reasons why allergists are not able to do as many as they probably would like to do," Dr. Gupta said.

New strategies are needed to promote the appropriate diagnosis of food allergy in accordance with NIAID guidelines, she added.

"We need to get the word out, especially to general physicians, to increase their awareness about the current food allergy guidelines, so that they can help getting children accurate diagnoses and getting them to allergists."

John Oppenheimer, MD, an allergist in private practice in Cedar Knolls, New Jersey, and chair of the scientific program committee, told *Medscape Medical News* that this study reinforces the fact that care for individuals with food allergies is suboptimal.

"Presently, some overrely on blood or skin testing, but the gold standard is the ability to ingest a full serving of a food," Dr. Oppenheimer said.

"Blood and skin tests have a very high false-positive rate. This abstract reminds us that in some patients...oral food challenge can aid in determining a true allergy."

"Despite the fact that it is almost 2012, we have no perfect test to determine if a patient is allergic to a specific food," Dr. Oppenheimer continued.

"Both the blood and skin tests are solely confirmatory tools, based upon history. They function very poorly as a screening tool. Thus, the allergist is left to rely upon history and to layer these confirmatory tests to determine the best move forward. When it appears reasonable, from the standpoint of risk, they can then perform a food challenge. As noted by Dr. Gupta, these are very time consuming and are not without risk. In light of the complexity of this scenario, I always suggest involving the allergy specialist early in the care of a food-allergic patient. There is no better time to determine the likelihood of food allergy than just after the sentinel reaction," he said.

New tests for food allergy are on the horizon, he added. "Peptide microarray immunoassays may help stratify prospective patients undergoing food challenge regarding the likelihood of reaction, as noted in a study by Cerecedo et al" (*J Allergy Clin Immunol*. 2008;1223:589-594).

Dr. Gupta has disclosed no relevant financial relationships. Dr. Oppenheimer reports financial relationships with AstraZeneca, GlaxoSmithKline, Merck, and Novartis.

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