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The Child With Food Allergy

Pediatricians play an integral role in the initial diagnosis and management of children with a suspected food allergy. History, some useful laboratory tests, and careful counseling can go a long way to identify these sometimes challenging patients.

A considerable amount of anxiety often surrounds food allergy concerns, and this should be addressed (or at least acknowledged) with patients and their families.

Start with history, the most important diagnostic factor: Ask children and parents about specific symptoms, their timing, and foods the child has ingested. If the child experienced anaphylaxis, then include medication and insect stings in your history taking. The good news for primary care is that 90% of food allergies are caused by a few foods: milk, egg, wheat, soy, peanut, fish, shellfish, and nuts. Other triggers are relatively rare.

Allergy skin testing and/or specific immunoglobulin E (IgE) blood tests can support your diagnosis. However, these findings need to be correlated with history because false-positive results occur frequently. It is important to realize that the level of specific IgE to a food is not correlated with the severity of a reaction, but instead is correlated with the likelihood of having a single reaction.

Determine if the child's symptoms truly suggest an allergic reaction or instead point to a non–food-related cause. Psychological conditions such bulimia, anorexia, or factitious disorder can mimic a food allergy, for example.

Your differential diagnosis also includes structural abnormalities of the GI tract; cystic fibrosis with chronic diarrhea from pancreatic insufficiency; and illness caused by contaminants and additives such as flavorings, dyes, preservatives, or infectious organisms. Also check for exposure to pharmacologic contaminants such as caffeine or tyramine in certain foods.

Rule out lactose intolerance and other disaccharidase deficiencies (especially if the symptoms are limited to the GI tract) and a non-IgE reaction called food protein-induced enterocolitis syndrome (FPIES). An FPIES diagnosis is based on clinical presentation and symptoms because allergy skin testing and specific IgE assays are not helpful.

Also consider gastroesophageal reflux. Children whose symptoms do not improve with proton pump inhibitors might have eosinophilic esophagitis. A food allergen sometimes triggers this condition, and consultation with a gastroenterologist and a biopsy are the best clinical strategies.

It is appropriate for a general pediatrician to treat children with a food allergy when the source of the reaction is easily identifiable, when their symptoms are consistent with an allergic reaction, and when their condition is non–life threatening (and supported by specific IgE test results, if obtained).

Avoidance of the culprit allergen is essential to management. Stress the importance of reading all food labels. Self-injectable epinephrine (such as Mylan Inc.'s EpiPen or EpiPen Jr.) is another essential component. Instruct patients on how and when to use epinephrine, including what to do when anaphylaxis starts in school or in a day care setting. In some cases, it may be appropriate to suggest that the patient wear a medical alert bracelet or necklace.

Education is probably the most important factor in management. Talk to patients and families about prognosis, cross-reactive allergens, and the nutritional needs of patients with multiple food allergies. Keep in mind that if the list of foods to avoid is extensive, this may interfere with normal growth and development. A dietician can help educate families not only on what foods to avoid, but on what foods are encouraged.

Make sure parents are comfortable with your treatment plan. If you are confident in your identification of the culprit food, you can implement a food-

elimination diet based on details from the history. Prescribe the appropriate dose of epinephrine and outline an anaphylaxis plan (easily found on the Web site www.foodallergy.org under "Food Allergy Action Plan" in the health professionals section). Allergy medication, including antihistamines, is useful for mild symptoms and hives, but as a wise old allergist once said, "antihistamines cure hives; Epi saves lives!"

Pediatricians can order in vitro specific IgE blood tests such as Phadia AB's Pharmacia CAP or UniCAP. These are helpful when performed by a reliable laboratory and may obviate the need for the skin testing of some patients for some foods. These tests are relatively good predictors of peanut, milk, and egg allergies.

In contrast, total IgE and complete blood count assays generally are not helpful. Performance of specific IgE blood tests to foods that are known to be clinically tolerated should be avoided; this just leads to confusion by all parties. In addition, avoid testing for specific IgG to foods because this strategy is not helpful for diagnosis. IgG is a measure of exposure only, and therefore positive results are not uncommon.

Most commonly, I see food-allergic patients post diagnosis to explain the results of previous tests and to develop an ongoing plan for avoidance, which includes strategies in the case of future accidental exposure.

If tolerance is suspected, I discuss with children and parents when to consider a food challenge. Such a protocol is probably best performed at a specialist's office, particularly if a more comprehensive, double-blind, placebo-controlled challenge is warranted. Food challenges require significant time and resources, including advance preparations in case anaphylaxis occurs.

Also consider referral to a specialist when a food culprit is not easily identified; when there is disparity between diagnostic test findings and patient history; and when the patient and family require more comprehensive education. ■

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