

Diagnostic evaluation of suspected food allergies in children

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Background: Food allergy is among the most complaints in children and its prevalence increased in recent years. Although history, physical examination and laboratory tests can be used for diagnosis, the gold standart is oral food challenge test. The aim of this study was to evaluate the clinical, laboratory and food challenge test results of patients who had been admitted to our department with a suspicion of food allergy.

Method: A total of 234 children, all of whom were admitted to Mersin University Faculty of Medicine, Pediatric Allergy and Immunology Department between January 2009 and August 2011, with a suspicion of food allergy according to their history, physical examination and/or laboratory findings were evaluated by means of serum food spesific IgE, skin prick tests and oral food challenge tests.

Result: Total of 63.6% of the patients were male. The mean age was 3.5 years (4 months–14.8 years). The admission symptoms included one or more of the following; anaphylaxis, wheezing, urticaria/ angioedema, cough, eczema, nasal congestion, rhinorrhea, perioral erythema, eye congestion, vomiting, and/or, generalized itching. The mostly suspected foods were milk, egg and wheat. We performed food elimination and oral challenge tests to children who were suspected to have food allergy according to history (169 challenges), and laboratory (serum specific IgE level >0.35 kUA/l and/or skin test positivity) findings (187 challenges). Forty-four (12.3%) oral food challenge tests were positive among a total of 356 challenges. These patients were mostly the ones whose symptoms (mostly wheezing) resolved after an elimination diet. By performing challenge tests 35 IgE mediated and 9 non IgE mediated food allergy were proven. Milk allergy was the most common food allergy, proven by oral food challenge.

Conclusion: In our population, most of the suspected food allergies could be excluded by a rational diagnostic algorithm which included an oral food challenge as a gold standart test. Correct diagnosis is important to prevent both unnecessary dietary restrictions, and also, morbidity due to food allergy.