

POSITION PAPER REGARDING FOOD INTOLERANCE TESTING (SPECIFIC IGG TESTING TO FOOD ANTIGENS) MAY 15, 2017

These statements were developed by the Food Allergy Council of the Philippine Society of Allergy, Asthma, and Immunology (PSAAI).

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ABSTRACT

Many patients have been reporting a variety of symptoms which are often attributed to food, either as a food allergy or food intolerance. A food allergy is a reaction to a specific food allergen that elicits an immunologic response in predisposed individuals. Food intolerance, on the other hand, occurs due to abnormal physiologic responses to certain food. Recently, many alternative medicine practitioners have been diagnosing food intolerance using detection of serum IgG levels. Food allergen specific IgG or IgG4 antibodies are markers of natural exposure to food components, which are naturally recognized as foreign by the immune system. This situation is a normal beneficial physiologic reaction and does not lead to development of disease. Elevated IgG levels to food proteins can merely indicate prolonged exposure to particular food components that does not lead to disease development. Elevated serum IgG to specific food proteins merely indicate that oral tolerance to food, rather than intolerance, has developed. Specific IgG testing (food intolerance test) is NOT a diagnostic test for any allergic condition, and neither is it a recognized test for the diagnosis of any food intolerance. The PSAAI DOES NOT RECOMMEND the use of food-specific IgG testing for purposes of identifying or predicting adverse reactions to food.

KEYWORDS: *food allergy, food intolerance, adverse food reaction, food intolerance test, food allergy test, allergy skin test, skin testing*

INTRODUCTION

Many patients have been reporting a variety of symptoms which are often attributed to food, either as a food allergy or food intolerance. These two medical conditions fall under the main medical diagnosis of an adverse food reaction (1). Oftentimes, patients mistakenly interchange these two medical terms when they relate their reactions to food. However, these two conditions are distinct medical entities.

A food allergy is a reaction to a specific food allergen that elicits an immunologic response in predisposed individuals. The prevalence rate of food allergy is 8% in children and 5% in adults (2). However, the prevalence of perceived food allergies has been noted to be much higher. A study done by Castor et al. documented that in Filipino adults, the prevalence of undocumented food allergy is 46% versus a prevalence of only 4% for true food allergy based on a validated questionnaire (3). The allergic response to food is initiated by IgE, an antibody, which is produced in high levels in an allergic individual. The end-result of an allergic reaction is the release of histamine which causes many systemic symptoms such as runny nose, sneezing, cough, eye redness and tearing, rashes, swelling of body areas (angioedema) and sometimes difficulty of breathing, low blood pressure and loss of consciousness (anaphylaxis) (4). Thus, the detection

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of specific IgE to the suspected food allergen must be done to truly diagnose a food allergy. This is done through an allergy test that can either be a skin prick test or a serum specific IgE test. A positive food allergy test can have many false positive results and, thus, a positive food allergen test, in order to be accurate, must be correlated with consistent clinical reactions that are due a histamine response upon ingestion of the specific food. A negative test, however, can be highly predictive of the absence of a food allergy to the specific food antigen tested (5). Thus, a skin test more accurately tells one what he/she can eat rather than what the individual cannot eat. There are 8 food allergens that can most commonly trigger allergic reactions. These are eggs, milk, peanut, tree nuts, wheat, soy, fish and shellfish.

Food intolerance, on the other hand, occurs due to abnormal physiologic responses to certain food. They are basically non-immunologic, occurring due to metabolic problems such as enzymatic defects (i.e. lactose intolerance), pharmacologic (i.e. MSG reactions), toxic (i.e. food poisoning) and other undefined reactions. They are often mistaken as food allergies, but the mechanism by which some intolerances occur are not yet well-defined. Since food intolerance is basically non-immunologic, there is no involvement of any antibodies in these reactions (5).

Recently, many alternative medicine practitioners have been diagnosing food intolerance using detection

of serum IgG levels. Many non-specific symptoms attributed to food intolerance have been reported to be caused by elevated serum IgG. They have also attributed elevated IgG levels to gluten and other food antigens as reflective of specific food causing intolerance to an individual. This practice may have come about in the early 1980s since one study showed that human IgG4 antibodies can cause basophil histamine release in vitro (6). However, mainstream medicine does not support this concept.

Food allergen-specific IgG or IgG4 antibodies are markers of natural exposure to food components, which are naturally recognized as foreign by the immune system. This situation is a normal beneficial physiologic reaction and does not lead to development of disease. Elevated IgG levels to food proteins can merely indicate prolonged exposure to particular food components that does not lead to disease development. Elevated serum IgG to specific food proteins merely indicate that oral tolerance to food, rather than intolerance, has developed (6). Measurement of food-specific IgG and IgG4 antibodies is not recommended for the diagnosis of food allergy or intolerance (1,2,7). Up to the present, there is no validated diagnostic test to prove or disprove food intolerance. Temporary elimination diets and food challenges may be helpful in diagnosing food intolerance, but these must be conducted by trained medical specialists in order to avoid inadvertent malnutrition in the patient.

SUMMARY

Specific IgG testing (food intolerance test) is NOT a diagnostic test for any allergic condition for the following reasons:

1. Elevated IgG levels, specifically IgG4, indicate tolerance to a particular food allergen.
2. Development of tolerance means that the patient will not react to a food antigen.
3. Allergic conditions, on the other hand, are caused by the action of IgE antibodies, not IgG antibodies, on the target organ. Allergic diseases, being IgE-mediated hypersensitivity reactions, can have an early phase and late phase component.
4. Therefore, only specific IgE testing is useful, together with a good clinical history and physical examination, in making a definitive diagnosis of any allergic condition.

Neither is it a recognized test for the diagnosis of any food intolerance.

The Philippine Society of Allergy, Asthma and Immunology (PSAAI) does not support the practice of medical doctors or diagnostic centers that offer such tests given the evidence against the validity of such tests. The results may lead to unwanted consequences when incriminated foods that are well-tolerated by patients are removed from the diet. This can lead to clinical consequences such as nutritional deficiencies or even malnutrition. This can also lead to unnecessary expenses on the family of these patients because of tests which are even more expensive than allergy

skin tests or serum specific IgE tests, complicated diets, or medications prescribed to them. Well-tolerated foods should not be removed from the diet even in the presence of positive IgG tests.

POSITION STATEMENT:

The PSAAI DOES NOT RECOMMEND the use of food-specific IgG testing for purposes of identifying or predicting adverse reactions to food.

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