

Frequency of Food Hypersensitivity Mediated by IgG in Patients Received in a Venezuelan Laboratory During 2011

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Background: Foods could cause adverse reactions, which manifested with similar symptoms that could complicate the diagnosis, i.e: gastrointestinal disease, rashes, edema, eczema, asthma, anaphylaxis, others; these reactions may be mediated or not by immunological processes. In the past years there were many research studies related with different types of immunological reactions, like for example those mediated by IgG, which are characterized with delayed and insidious manifestations. These reactions could appear in hours or days after ingestion of a particular food. The intake of "toxic food" can lead to immunological reactions, which includes the formation of immune complexes, able to increase the development of gastrointestinal, dermatological, neurological, muscular and respiratory disorders. The objective of this study was to evaluate the frequency of significant specific IgG titers against some foods in patients referred to Corpodiaagnostica Laboratory, (Caracas, Venezuela, an ISO 9001:2008 certified laboratory) from January to August 2011.

Methods: There were a total of 148 patients referred for serum specific IgG evaluation against foods. We measured patient's specific IgG titers against 45 foods using a commercial direct ELISA method (Dr. Fooke Labs ®, Germany), which is designed for the detection and quantification of specific IgG.

Results: We found detectable levels of specific IgG titers in highest frequency for: Milk 69%, Cheese 67%, Egg 64%, Gluten 54%, Sugarcane 51%, followed by Wheat Meal, Rye Meal, and other foods in smaller proportions. Moreover, in 46 patients with known clinical history, including gastrointestinal symptoms, respiratory symptoms, pervasive developmental disorder (PDD) and autism, we detected levels of specific IgG to a significant number of foods simultaneously.

Conclusions: The Specific serum IgG determination against foods could be a interesting tool to help the diagnosis of non type I Allergy reactions, and there are many published studies that have been established that the decrease or even disappearance of specific IgG titers against foods are related to the improvement of the initial clinical manifestations on some patients, but further investigations need to be performed to clearly understand the different mechanisms involved and to rule out false positive results for this test in patients without symptoms.