



Immunology of Food Allergy in The Students of Tirana City Ranging from Age 11 to 15[#]

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Abstract: Allergenicity is the ability of an allergen to induce allergic reactions, may vary considerably because thresholds of reactions against specific food allergens and other allergens differ, both within and between individuals, and with time. A food allergy is an adverse immune response to a food protein. Allergenic food proteins or glycoproteins usually have a molecular mass between 10 and 60 kDa, and they tend to be relatively resistant to denaturation by heat or to degradation by gastrointestinal proteases. Some proteins or fragments of proteins are resistant to digestion and those that are not broken down in the digestive process are tagged by the Immunoglobulin E (IgE). One thousand and two hundred Albanian students from 11 to 15 years of age were considered as representative sample of Tirana students' population. During the period January 2013 - January 2014, the students have filled in the forms prepared and distributed by us about the food which were used by them and about the irritation from the different food. Individuals who resulted to be allergic to food were subjected to further analysis in order to determine the total IgE, in the ELISA serum and simultaneously it was defined level of eosinophiles in the blood. The percentage of positive cases coincides with previous studies, where the result of this food allergy cases has been resulted about 8%. In most cases students of this age are allergic to eggs. In some cases of allergies which are caused mainly by the protein of egg yolk. Further foods that cause allergies are sea products such as fish or shellfish. After them come peanuts and tree nuts and in the end, there are fewer cases which are allergic from soya. Almost in all the cases of children who are allergic to various foods, levels of IgE increase, which otherwise is called allergic immunoglobulin, we notice also an increase of eosinophiles as polymorph nuclear leukocytes, which emit the contents of granules that help in the emergence of allergic signs. Certain syndromes occur in individuals who are allergic to different food, fruits or vegetables either. This tells us that there is no relation between the gender and the allergic cases.

Key words: *Immune response, Food allergy, Immunoglobulin, Antigen.*

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