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Identifying of Allergic Agents to Different Human Age Groups in Tetovo Area

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Abstract: ***During this research we identify the allergens in Tetovo area working with different age groups. Results of this study indicate that the most affected age group is 0-14 years from allergies, where as the most common causes of allergens are: eggs, peanuts, milk, penicillin, insect and cats. For the age group 15-45 years, the most common allergens are: pollen, cigarette smoke and dermatophags, while the age group 46-75 years, as the most common allergens are: cigarette smoke, tomatoes and penicillin. For the realization of this study are applied standard methods for identification of allergens based on immunological tests. Immunological analyzes were performed at the Clinical Center, Diagnostic Laboratory, University of Tetovo and University of Skopje.***

Keywords: allergy**,** allergens, age groups.

1. Introduction

Allergies are a hostile reaction of the immune system to substances (foreign) for the organization known as allergens which can include: foods, environmental toxins, chemicals, pollen, mold, dust mites and a variety of different iritants. The role of the immune system is to protect the body from foreign agents and toxic pathogens such as chemicals, toxins, mold, food, viruses, bacteria and other microorganisms [3]. Defense reaction of the body's function is to protect the organism from the initial contact with allergens and to immunize the body from repeated contact with the same. All allergic reactions are unexpected from initial contact phase without If signs, during which formed a special class of IgE antibodies [5, 9]. With repeated contact with allergens that cause reaction, these IgE antibodies react with allergens and lead (from mast cells) to release mediators such as histamine, leucotrine, prostaglandin, etc., and lead to allergy symptoms. When an allergic reaction occurs, allergens that have provoked it, can be identified by determining specific IgE antibodies in blood serum. The organs that are affected by allergic symptoms. Allergies manifested mainly in the respiratory tract [1], digestive tract, skin or mucous membranes of the eye, nose etc. The most serious complication that occurs in this case is bronchial asthma, this disease that affects all age groups, without sparing even small children [4].

Bronchial asthma is a chronic obstructive disease of the airways, which causes serious breathing problem. Characterized by a strong immune reaction and chronic inflammation of the tracheo-bronchial system. The disease manifests itself in episodes, i.e. acute exacerbations, which are replaced with periods during which no symptoms of asthma, to asthmatic attack comes as the deteriorating reziltat inflammation, because it is present in its environment any irritating or provocative factor of asthma.

Swallowing allergens include foods, drugs and heavy metals present in drinking water. Multiple meals that cause allergic reactions are wheat, corn, milk and its products, egg white, tomatoes, soya, groundnuts, sea shells, chocolate, coloring of food, additives and pesticides present in foods different. Of drugs that cause allergic reactions are aspirin, NSAID's (non steroidal anti-inflammatory medicaments) and various antibiotics like penicillin and amoxicillin [6].

Contact allergens; include different plants and animals, household cleaning tools, detergents, cosmetics products, hair coloring, etc. Olfactory allergens include smoke and industrial chemicals products, tobacco smoke, mobile fumes, dust of plant lice, mold spores [8], pollen of plants, etc. Injecting allergens include insect bites and sting, injecting drugs, tattoos, etc.

2. Methodology

In this research included 142 outpatients with allergic problems tract of upper and lower respiratory (bronchial asthma, nasal infalamation, sinusitis, nasal polyps), and patients with anamnesic information of intolerance of aspirin and other nonsteroidal anti-inflammatory.

Tests were conducted to Prick Test method with standard set of pneumo-allergens [2, 7]. In allergic tests (RIDA x-screen) included: Pneumoallergens (20 agents); Food allergens (20 agents); Pediatric allergens (20 agents). Patients are classified and investigated by gender and age groups, and it:

Age group I- 0-14 years
Age group II -15 to 45 years
Age group III - 46- 75 years

Immunological analyzes were performed at the Clinical Center Diagnostic Laboratory University of Tetovo and University of Skopje.

3. Results

The analysis conducted by allergic tests RIDA x-screen, the 142 patients, shows that the age group most affected by allergies in the vicinity of Tetovo is 0-14 years. As the most common causes of allergies are: eggs, peanuts, milk, penicillin, insect and cat.

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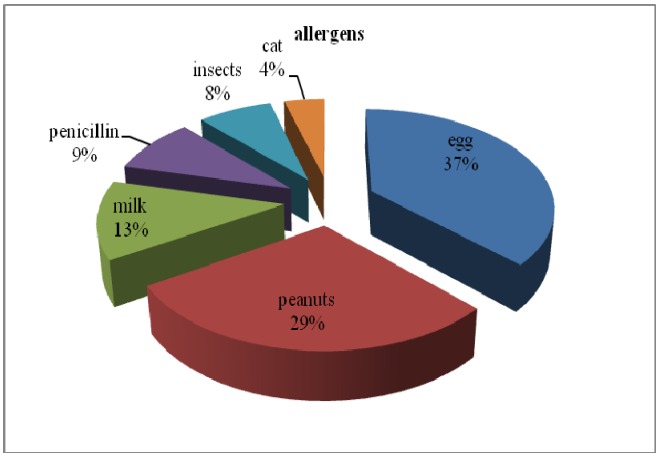


Figure 1: Percentage of different allergens in age groups 0-14

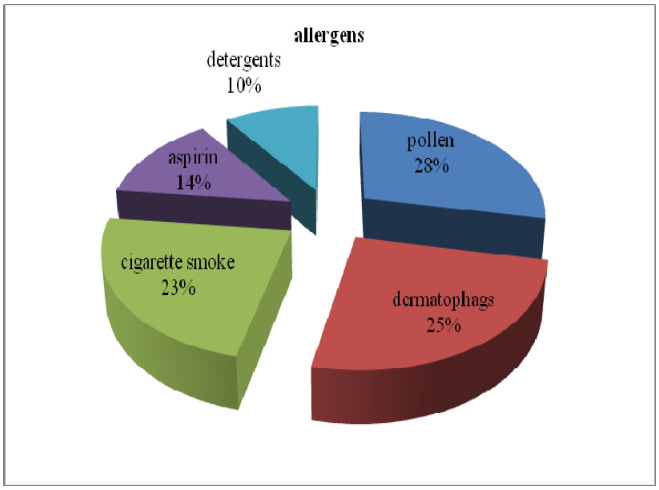


Figure 2: Percentage of different allergens in age groups 15-45

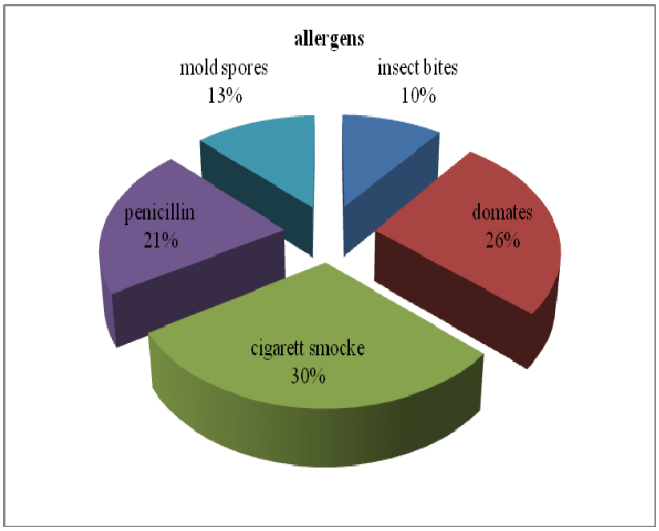


Figure 3: Percentage of different allergens in age groups 46-75

4. Conclusions

The analyzes of allergic tests, concluded that as the age group most challenged by allergies is 0-14 years, while more pronounced as agents are eggs and peanut 37% 29%, while less stressed are: milk 13%, penicillin 9%, 8% and cats insects 4%. At ages 15 to 45, as the most common allergens meet: pollen 28%, 25% and dermatophagët smoke 23%, while more rare are aspirin and detergents by 14% to 10%. The 46-75 age group, the most common allergens such as tobacco smoke appear 30%, tomatoes 26%, penicillin 21%, while more rare are spores mykeve 13% and 10% insects.

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