## HYGIENIC ASSESSMENT OF THE RISK OF DEVELOPMENT OF ALLERGIC SKIN DISEASES IN THE CHILDREN POPULATION

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## **Abstract**

Atopic dermatitis, which develops mainly in childhood, is one of the most common skin diseases and is characterized by a complex pathogenesis affecting all organs and systems. Over the past 40 years, there has been a steady upward trend in the number of patients with atopic dermatitis all over the world, often leading to limitation of life and social functions from childhood. According to a number of authors, there is a relationship between the incidence of AD and regional environmental conditions. The influence of adverse environmental influences on the human body is due to rapid, often irrational industrialization and chemicalization, which create conditions for the accumulation of toxic substances in the external environment. The establishment of sanitary standards for the content of xenobiotics inhibits the process of degradation of the external environment, but these standards are not always and everywhere implemented punctually enough.

**The purpose of the study** is to establish the influence of environmentally harmful factors on the formation of atopic dermatitis in children and to develop effective elimination therapy.

**Materials and methods of research:** in accordance with the objectives, 128 children were under our supervision, of which 108 had AD and 20 were healthy. At the same time, 27 patients suffered from infantile form of AD, 43 from childhood and 38 from adolescence in accordance with the classification of clinical recommendations "Dermatovenerology".

The age of the patients ranged from one year to 18 years. The choice of patients in this age category was influenced by the fact that children are the most vulnerable group for chronic exposure to toxic substances, as well as their permanent residence in the same territory and the absence of daily home-to-work migration to other areas of the city. The severity of AD was assessed using the SCORAD (scoring atopic dermatitis) scale, based on objective (intensity and prevalence of skin lesions) and subjective (intensity of daytime skin itching and sleep disturbance) criteria. Biochemical blood tests included the study of the following parameters: total protein, albumin, total bilirubin, transaminases (AlAT and AST), alkaline phosphatase, glucose, antistreptolysin-o (ASL-

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Emergent: Journal of Educational Discoveries and Lifelong Learning is a scholarly peer reviewed international Journal O), potassium, magnesium, sodium, calcium and serum iron. Living conditions and the ecological situation in the territory of the south-eastern administrative district (SEAD) and the western administrative district (ZAD) of Tashkent are determined by natural (landscape, climatic), anthropogenic factors (activity of industrial enterprises, operation of vehicles, development of urban infrastructure, urban planning enterprises) as well as administrative and management decisions. The south-eastern administrative district of Tashkent occupies 10% of the capital's territory, being one of the largest industrial regions of the city, and the environmental situation in it is one of the most tense. Annual emissions of harmful substances into the atmosphere amount to about 50 thousand tons. Measurements of the concentrations of pollutants in the district's atmosphere show multiple excesses of the maximum permissible concentrations of phenol, nitrogen dioxide, toluene, xylene, ammonia and carbon monoxide. The transport situation in the district is assessed as critical. Regularly notes 2-3-fold excess of maximum concentrations of CO, nitrogen oxides, formaldehyde and other toxic emissions in the area of major transport arteries of the district, while the main environmental blow is taken by residential buildings located in close proximity to the roadway. The Western Administrative District occupies 14.2% (153 km2) of the urban area, with a population of 943 thousand people, of which 200 thousand are children and adolescents. The industry of the JSC is represented by enterprises of machine, instrument and radio engineering, construction industry and motor transport. The total emission of pollutants is 21 thousand tons per year. A natural feature of the district is a significant area of greenery and reservoirs. The share of the closed joint-stock company occupied by green areas and plantings is 13%, the water surface occupies 160 hectares, with the residential zone making up 64.7% of the total territory of the district. The dynamics of the SCORAD index were assessed every seven days during treatment, and after the end of therapy, a comparative analysis of the dynamics of indicators of laboratory and instrumental research methods was carried out.

## **Conclusions:**

Features of the course of blood pressure in children permanently residing in an environmentally unfavorable area of Tashkent have been established: lack of seasonality of exacerbations, short duration of remissions and high frequency of relapses. A complex therapy has been developed for children with AD living in an environmentally unfavorable area using the sorbent Lactofiltrum and the antidote Unithiol. The use of a sorbent and an antidote in the complex therapy of children with AD contributed to the elimination of elemental imbalance: a decrease in the content of aluminum, cadmium and nickel in the hair, which led to an increase in essential elements (cobalt, selenium and zinc) against the background of positive dynamics of the course of dermatosis.

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