

Determination Of The Immunological Status Of The Oral Cavity Of The Child Population With Congenital Lip And Palate In The Studied Areas

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Abstract. *In connection with the continuing chemicalization of agriculture in the republic and the increasing intensification of industrial production, the danger of chemical pollution of objects of the human environment, disturbance of the ecological balance and their negative impact on the health of the population increases. As you know, in the conditions of Uzbekistan, the main sources of environmental pollution in rural areas are large-scale use of pesticides and mineral fertilizers, and in industrial cities - emissions from various industrial enterprises; in some cotton-growing regions, there is a combined pollution of the environment with pesticides, mineral fertilizers and industrial emissions.*

Keywords: *immunology, oral cavity, children, congenital cleft lip and palate*

1. RELEVANCE.

In the literature, there are isolated reports on the pathogenic effect of certain environmentally unfavorable environmental factors on the state of the dentition in children. However, issues related to the prevention and treatment of diseases of congenital malformations are the most important medical and social problem in children with combined exposure to the body of pesticides, mineral fertilizers and other industrial toxic compounds in hot climates, so far, have not been resolved, which served as the main goal of this work.

As you know, under conditions of intensive chemicalization of agriculture and significant development of industry, there is a decrease in immunobiological reactivity and protective mechanisms of the body of children, as the most vulnerable contingent of the population, which contributes to the exacerbation of chronic diseases, the development of relapses, serves as a risk factor in the formation of various diseases, including dental.

2. MATERIALS AND RESEARCH METHODS.

In this regard, we investigated the state of the general and local (oral cavity) immune status in children aged 9-12 years of both sexes with congenital cleft lip and palate living in the surveyed areas.

The analysis of the data obtained was carried out by comparing them both with the average parameters between the groups of the examined children, and with the physiological norms of the age groups. It was revealed that in the control regions, ecologically safe, the average values of the studied immunological parameters correspond to the physiological standards given in the literature. Therefore, we as compared conventionally take these regions.

The results of the immunological examination of children showed that the absolute number of leukocytes in children with congenital cleft lip and palate in the Karaulbazar region is significantly lower than in children in the Bukhara region; the difference with Gijduvan district was statistically insignificant ($P_{1-2} > 0.05$).

In children with congenital cleft lip and palate of the Gijduvan region, the number of leukocytes compared with the indices of the Bukhara region, although it turned out to be reduced, the difference was statistically insignificant ($P_{2-z} > 0.05$). The same pattern was found between the compared rural areas in terms of the number of lymphocytes. There was a significant decrease in the percentage of T-lymphocytes in children with congenital cleft lip and palate of the Karaulbazar region in comparison with similar indicators in the control regions (by 6.9% and 14.5%, respectively). The number of B-lymphocytes in children with congenital cleft lip and palate in the experimental region was also significantly lower (by 5.3%) than in Bukhara; in the Gijduvan region, on the contrary, this indicator was higher than in Karaulbazar (by 7.6%) and Bukhara (by 2.3%) regions.

In addition, in children with congenital cleft lip and palate of the Karaulbazar region, a significant decrease in the phagocytic activity (FA) of leukocytes was revealed in comparison with the control data (by 3.9% and 11.6%, respectively).

Analysis of data on the state of local immunity of the oral cavity in children with congenital cleft lip and palate showed that the degree of change in the studied immune parameters of the oral cavity is also directly dependent on the quality of the environment. Thus, in the group of children with congenital cleft lip and palate living in the Karaulbazar region, there was a pronounced decrease in the activity of lysozyme and the content of secretory immunoglobulin A of saliva (slgA) in comparison with the control data (respectively, lysozyme 2 times, slgA - 8.8% - in Gijduvan and lysozyme by 4 times, slgA - by 33.5% - in Bukhara regions). The number of microbes in the oral cavity (streptococci, staphylococci and lactobacilli) was significantly increased in the experimental area.

In children with congenital cleft lip and palate living in the Gijduvan region, the lysozyme titer and slgA content of saliva were also significantly lower (respectively, lysozyme is 3 times, slgA by 25.2%) lower than in children in the Bukhara region. The number of oral microbes in children with congenital cleft lip and palate turned out to be increased compared with similar indicators in children in the Bukhara region.

3. RESULTS AND DISCUSSION.

Thus, based on the data of immunological studies of the state of local immunity of the oral cavity, it was found that among children with congenital cleft lip and palate living in areas with more intense environmental pollution with pesticides and industrial toxic emissions from BNPZ, there are deeper changes in the state of local immunity of the oral cavity. ... They are manifested in the form of a significant decrease in the activity of salivary lysozyme, the content of saliva slgA, and an increase in the amount of pathogenic microflora of the oral cavity (in comparison with the data obtained in children with congenital cleft lip and palate living in control areas).

The imbalance of local immunity observed in practically healthy children suggests that the indices of local immunity of the oral cavity are very sensitive indicators of the impact on the body of ecologically unfavorable environmental factors of a chemical nature. It is possible that the discovered functional changes in the immunological parameters of the mouth, caused by the constant action on the body of chemical environmental factors, are the first signs of the development of initially latent, and later - explicit pathology of the oral cavity. These violations can serve as integral indicators of the adverse impact of environmental factors on the health of the child population in general and on the state of emergencies in particular.

4. CONCLUSIONS.

The main pathogenetic prerequisites for the growth of dental caries among children with congenital cleft lip and palate in ecologically unfavorable areas are functional and immunological disorders in their body, manifested in the form of a decrease in the resistance of hard dental tissues, the remineralizing ability of saliva, as well as the activity of lysozyme and the sIgA content of saliva.

5. USED LITERATURE

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