

## METHODS OF TREATMENT AND PREVENTION OF DENTAL HARD TISSUES IN CHILDREN LIVING IN ECOLOGICALLY UNFAVORABLE AREAS OF THE BUKHARA REGION

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**Abstract:** The health of children and adolescents is of great medical and social importance, which determines the present and future of the population. Numerous factors influence the formation of health, including the individual characteristics of the organism and climatic conditions [1,11,16]. A number of studies have found that the relative proportions of these factors vary depending on the specific conditions of each country, region, and even neighborhood.

**Key words:** Pesticides, children, dental hard tissue, ecology, prevention, treatment

### Introduction

The health of children and adolescents is of great medical and social importance, which determines the present and future of the population. Numerous factors influence the formation of health, including the individual characteristics of the organism and climatic conditions [1,3,5,8,11,13,15,19,24].

A number of studies have found that the relative proportions of these factors vary depending on the specific conditions of each country, region, and even neighborhood. Under the influence of environmental factors in the human body are formed not only adaptive activities, but also negative changes in health: the growth of general and nosological diseases, the impact of environmental factors on the functioning of all organs and systems, manifesting in systemic disorders; occurs [2,5,9,11,13,14,19,23,26].

An analysis of the results of research conducted over the last decade has shown that many studies did not include changes in health status associated with climatic characteristics of the habitat in the scope of studies of socio-environmental problems [4,6,13,16,18,20].

As for the clear literature data on the condition and development of the dental-jaw system in children under conditions of environmental adverse effects, they are very few and far between [4,6,8,10,12,14,17,21,22,25].

**Objective:** To take preventive measures to prevent dental caries in children living in Bukhara region.

**Research.** Children suffering from dental caries from 7 to 15 years of age living in Gijduvan district of Bukhara region. The last 9 years have seen a deterioration in the environmental landscape. This is due to the increase in the number of production centers.

The deterioration of the environmental situation is undoubtedly reflected in human health. Two groups were formed in connection with the different number of cases of dental hard tissue disease in children aged 7 to 15 years. The first group included  $n = 48$ ,  $48 \pm 5$  children aged 7 to 12 years from 55 children in Gijduvan district.

The second group included children aged 13 to 15 years with permanent dentition. Out of 41 children from Gijduvan district,  $n = 19$ ,  $19.79 \pm 4.07$  sick children were taken. It is known that dental hard tissue disease is -32% in children aged 7-12 years and 19.8% in children aged 13-15 years in Gijduvan district, which is 1.5 times more. Of the 96 children examined, 41 were children aged 13-15 years and 55 children aged 7-12 years.

To date, the significant role of unsatisfactory state of stiffness of the oral cavity in the development of a number of dental diseases, including dental hard tissue diseases has been proven. In this regard, we studied the functional status of the solid tissue of the oral cavity and the hygienic condition of the oral cavity of children in rural areas (determination of the acidity of tooth enamel, electrical conductivity of the pulp and the hygienic index of the oral cavity).

When planning treatment and prophylactic measures, it is necessary to immediately assess the structural and functional acid resistance of tooth enamel according to the method of TA Redinova. Its application in dynamics helps to assess the stability of enamel in the treatment of stained forms of dental hard tissue diseases, as well as determines the amount of restorative work in the filling of destructive injuries.

Oral hygiene is taken into account. Given the specificity of regional ecosystems, it is necessary to pay special attention to differential approaches to prevent oral cavity injuries, as their disruption, as noted above, can serve as a cause of various pathological changes in teeth in children.

It is known that today there are a wide range of means used to prevent and treat poisoning of the body with various chemicals and pesticides.

**Discussion.** Based on the data of personal natural and experimental studies, we and pediatricians, on the advice of a plan of significant pathogenetic effects of chlorine and organophosphorus pesticides and sulfur dioxide and nitrogen poisoning on the body, the most promising tool is common calcium glycerophosphate, ascorbic acid, ascorbic acid. We recommend using it in combination with vitamin Komplevit.

A set of local treatment and prevention measures has been developed (application with a 10% solution of calcium gluconate, the use of Elyudril oral rinse, as well as Elyudril toothpaste is recommended).

The use of ascorbic acid and calcium glycerophosphate is associated with the fact that they activate redox reactions in the body, have a positive effect on metabolic processes and morphofunctional parameters in tissues, carbohydrate, protein and lipid and most importantly energy metabolism, so they eliminate harmful chemicals from the body causes acceleration.

**Dental application.** After brushing the teeth with the paste, the teeth are sealed using tampons soaked in a 10% solution of calcium gluconate for 10-12 minutes, then covered with rollers soaked in Elyudril solution for 5-6 minutes. 3-6 treatments were performed for one course, 3-4 treatments were performed one day later, this practice was carried out for one year.



**Rinsing the oral cavity:** After cleaning with Elyudril toothpaste, the mouth was rinsed with Elyudril solution for one minute. 8-10 treatments were performed in one course. It was not recommended for children to brush their teeth and eat for 2 hours after rinsing their mouths. Such courses were repeated 3-5 times a year.

The clinical effectiveness of the use of Elyudril mouthwashes is associated with the formation of a protective layer on the mucous membrane of the gums and teeth, and thus protects the oral cavity from harmful effects of toxic drugs and acidic coating.

The prophylactic efficacy of the applied Elyudril toothpastes was assessed using the following methods: study of the hygienic index (to determine the cleaning properties), susceptibility to tooth enamel acid. These studies were conducted before the start of the experiment and after the completion of a 6-9 month prophylactic course. When using Elyudril toothpaste by children, no irritating or allergic effects on the periodontium and oral mucosa were observed.

Thus, clinical trials allow us to draw the following conclusions:

Elyudril toothpastes have a high cleansing, anti-caries, anti-inflammatory and antibacterial effect;

Elyudril toothpastes can be widely used as a new hygienic tool for the care of children's oral cavity to prevent periodontal and dental diseases.

## Conclusion

1. In Gijduvan district of Bukhara region, the main pollutants are pesticides that adversely affect the dental status of the children's population. Dental hard tissue diseases of permanent teeth accounted for 34.7% in Gijduvan district.
2. In the treatment of spotted forms of dental caries, the use of calcium glycerophosphate, micronutrient complex, vitamins per os and prophylactic measures to remineralize the teeth, applications with a 10% solution of calcium gluconate, the use of "Elyudril" toothpaste, and "Elyudril" The effectiveness of the methods of rinsing the oral cavity with the solution has been clinically proven.
3. During the observation for 10-12 months, the partial improvement of tooth stain color in children aged 7-12 years in Gijduvan district was 26.0%, and the cessation of the process was 55.5%. In children aged 13-15 years, the partial improvement in tooth stain color was 40.0%, and the cessation of the process was 73.3%.
4. One of the most important measures in the prevention and treatment of complications of dental caries in children is the use of Elyudril toothpaste, rinsing the oral cavity with Elyudril solutions, which simultaneously with the above means ingestion of calcium glycerophosphate, ascorbic acid and

The experimental-clinical approximation of their combined effect showed that the vitamin Komplevit complex is highly effective.

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