

Principles Of Treatment And Prevention Of Dental Tissues In Children In Ecologically Unfavorable Areas

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Abstract – The health of children and adolescents is of great medical and social importance, on which the present and future of the population depends. The formation of health is influenced by numerous factors, including the individual characteristics of the organism and climatic conditions [1,11,16].

Several studies have shown that the relative proportions of these factors vary depending on the specific conditions of each country, region, and even area.

Keywords – Pesticides, Children, Dental Hard Tissue, Ecology, Prevention, Treatment.

I. INTRODUCTION

The study of the impact of environmental factors is necessary for the formation of preventive and therapeutic measures. At the same time, the risks associated with the influence of age-related genetic and biological factors are relevant [1,3,5,8,11,13,15,19,24]. A number of foreign and domestic studies are devoted to the influence of unfavorable factors of the working environment on the organs of the oral cavity of workers, appropriate therapeutic and prophylactic measures have been developed, and some aspects of the pathogenesis of industrial injuries in the workplace have been identified. oral cavity [2,5,9,11,13,14,19,23,26].

As for the clear literary data on the state and development of the dentition in children under the unfavorable influence of environmental factors, there are very few of them. [4,6,13,16,18,20].

It has been found that toxic chemicals in the environment can adversely affect the fetus in the antinatal stage of fetal development, and in the postnatal stage of toxins if the mother lives in an area intensely contaminated with harmful substances during pregnancy or in direct contact with them. substances. breast milk and contaminated objects of the environment (atmospheric air, drinking water, plants and food) may be exposed [4,6,8,10,12,14,17,21,22,25].

II. THE AIM

The aim of the study was the treatment and prevention of caries in children living in disadvantaged areas of the Bukhara region.

III. MATERIALS AND RESEARCH METHODS

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 ± 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 ± 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.

IV. RESULTS AND DISCUSSIONS

Based on data from personal field and experimental studies, we and pediatricians, on the recommendation of a plan for significant pathogenetic effects of chlorine and organophosphorus pesticides, as well as poisoning with sulfur dioxide and nitrogen dioxide on the body, the most promising remedy is ordinary calcium glycerophosphate, ascorbic acid. acid, ascorbic acid. Recommended to use in combination with vitamin Komplevit. A set of local therapeutic and prophylactic measures has been developed (the use of a 10% solution of calcium gluconate, the use of Eludril mouthwash and Elyudril toothpaste is recommended).

The use of ascorbic acid and calcium glycerophosphate is due to the fact that they activate redox reactions in the body, have a positive effect on metabolic processes and morphofunctional parameters of tissues, carbohydrates, proteins and lipids and, most importantly, energy metabolism, therefore they eliminate harmful chemicals from organism. causes acceleration.

Taking into account statistical data, we have developed and tested a comprehensive system of secondary prevention of dental caries in children living in regions with different ecological environments for two years (2019-2021). The treatment was carried out depending on the form of the disease, clinical manifestations and the patient's age. In spotted forms, local and general treatment was carried out without filling the teeth.

As for the general remineralizing preventive therapy, children 7-12 years old were prescribed 0.5 g of calcium glycerophosphate orally once a day and ascorbic acid 2 times a day for a month, children 13-15 years old - 1.0 g of calcium glycerophosphate per day. It is recommended to repeat the course of treatment after 3 months, taking 1 time and ascorbic acid 3 times a day for a month. In addition, immediately after breakfast, depending on body weight, 1-2 tablets of multivitamins "Komplevit" were prescribed. To improve oral hygiene, topical applications for teeth and mouthwash were ordered.

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.

V. 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%.

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