

Characteristics of Dental Caries among Children

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Abstract: In modern dentistry, despite the use of various methods of prevention and treatment of caries of dental hard tissues, it remains one of the most common diseases of dental hard tissues. There are hundreds of reasons that contribute to the development of caries in milk teeth. The most important of them socio-demographic, biological, dietary, hygienic and nutritional factors. In this case, the occurrence or attenuation of a number of conditions will later determine the early development of caries in children.

Keywords: caries disease, dental hard tissues, dental care, epidemiologic statistics.

On a world scale, research is being conducted on the development of effective methods of diagnosis, treatment and prevention of caries among children, providing dental care to patients. Dental hard tissue caries is common among the population of different geographical regions and different countries of the world. (1). Due to the prevalence of dental caries in children and the low effectiveness of treatment and prevention measures, it remains a serious health problem. (2).

In the scientific research of a number of local and foreign scientists on the diagnosis, treatment and prevention of caries of dental hard tissues in children, the most frequent referral to specialists with the diagnosis of caries (5) and the main factors of the occurrence of the pathological process - socio-demographic, biological, hygienic and type of nutrition (6), as well as mental - they have shown that the disturbance of the physical state is also an important etiological factor of the development of caries (7).

It is known that the creation of methods that can clearly show signs of pathology in research, including clinical-functional, biochemical, immuno-microbiological, social and equipment research (4) results in It is noted that there is a continuous relationship between the demineralization of the hard tissue of the tooth, the change in the mineral content of the oral fluid, the change in the microflora of the tooth-gum pocket, and pathology.

It is the last year in the prevention and treatment of dental caries in children in our country, from ROS S gel (1) in children with cerebral palsy, and for the treatment of primary caries in children with rheumatic diseases, from Nanofluor gel, a new generation representative of bioactive fluoride-preserving Tooth Mousse (7) is recommended to use.

In addition, physical and functional discomfort A program aimed at improving the quality of life (9) was recommended in cases of disorders, changes in the child's emotional, social and family stability, which led to the creation of new methods of prevention and treatment. A disease in the deterioration of the hygienic condition of the oral cavity of children development x amnesty and degree of severity are quite high, and such factors influence the development and clinical course of the disease in many ways (7).

In addition, the dental hard tissues among different strata of the population a number of scientists have conducted scientific research on early diagnosis, assessment of risk factors and increasing the effectiveness of therapeutic treatment (9). However, treatment methods aimed at normalizing

the cariogenic microflora along with the remineralization of dental hard tissues in children of different age groups have not been improved and have not been applied to dental practice .

The purpose of the study. prevention of dental caries in children and justification of complex treatment methods.

Research material and method. Based on the results of annual statistical reports and two epidemiological statistical reviews (2023-2020) as the basis of the research, a comprehensive study of the spread of dental caries and its intensity among the population of Bukhara region, an analysis of the direct and indirect results of its implementation, and the development of individual preventive programs of dental caries are chosen. received. In the implementation of the set goal:

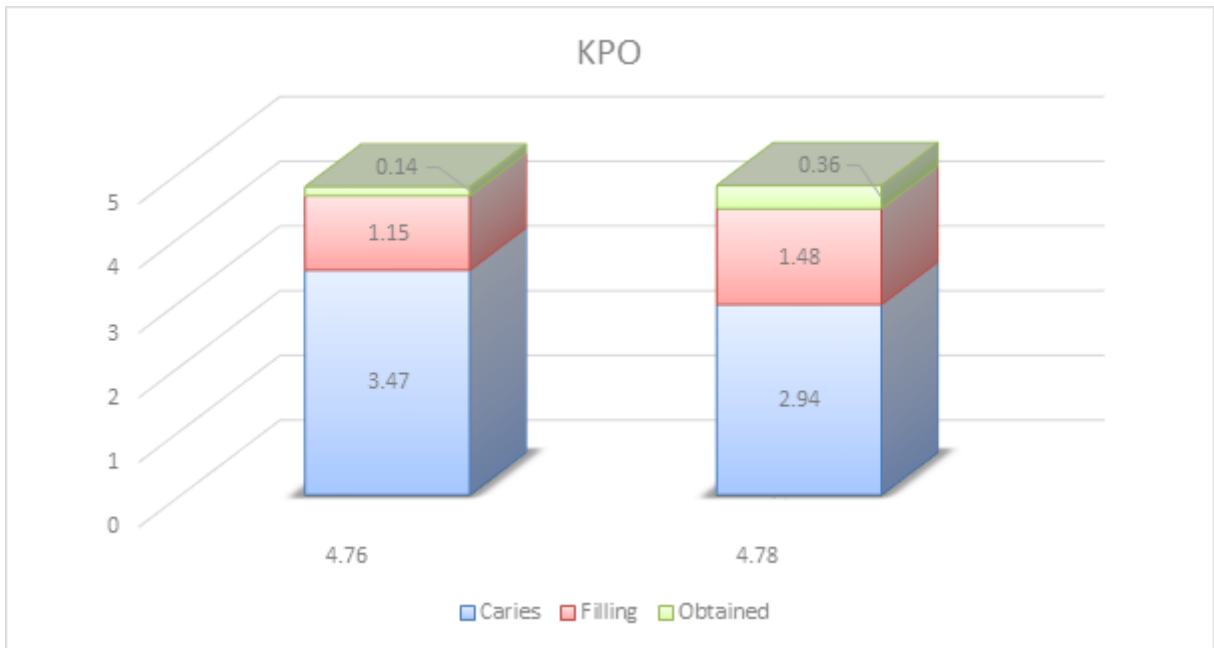
In order to determine the trends in the dynamics and speed of dental caries prevalence in the city and district, the average indicators of these indicators in the 3 main (6-9, 10-12, 13-15) age categories of the population living in cities and rural areas were calculated and the reliability of the differences over a 3-year period was evaluated.

Examinations were carried out at the Department of Pediatric Dentistry of the Bukhara State Medical Institute together with specialists trained in assessment methods according to the criteria of the regional WHO (WHO, 1997). The results of the examination were entered into single record cards and analyzed with the help of a special computer program, which made it possible to create a database of statistical analysis. A total of 4181 people in 2023 and 4955 people in 2020 were analyzed. Prevention of dental caries in children of different age groups and the fulfillment of the assigned tasks in the period from 2022 to 2024, the dental clinic of the Bukhara State Medical Institute (head doctor - M.A. Astanov) and the department of pediatric dentistry (the head of the department, Ph.D., Assoc. Kamalova) for 3 years, a comprehensive examination of 134 clients on their dental status, assessment of the need for treatment of children's caries, and an individualized program based on rational approaches to its implementation in preschool children were developed. Comparative evaluation of KPO indicators was carried out through an additional control group, which included 36 children aged 6 to 15 years who had not previously participated in preventive programs.

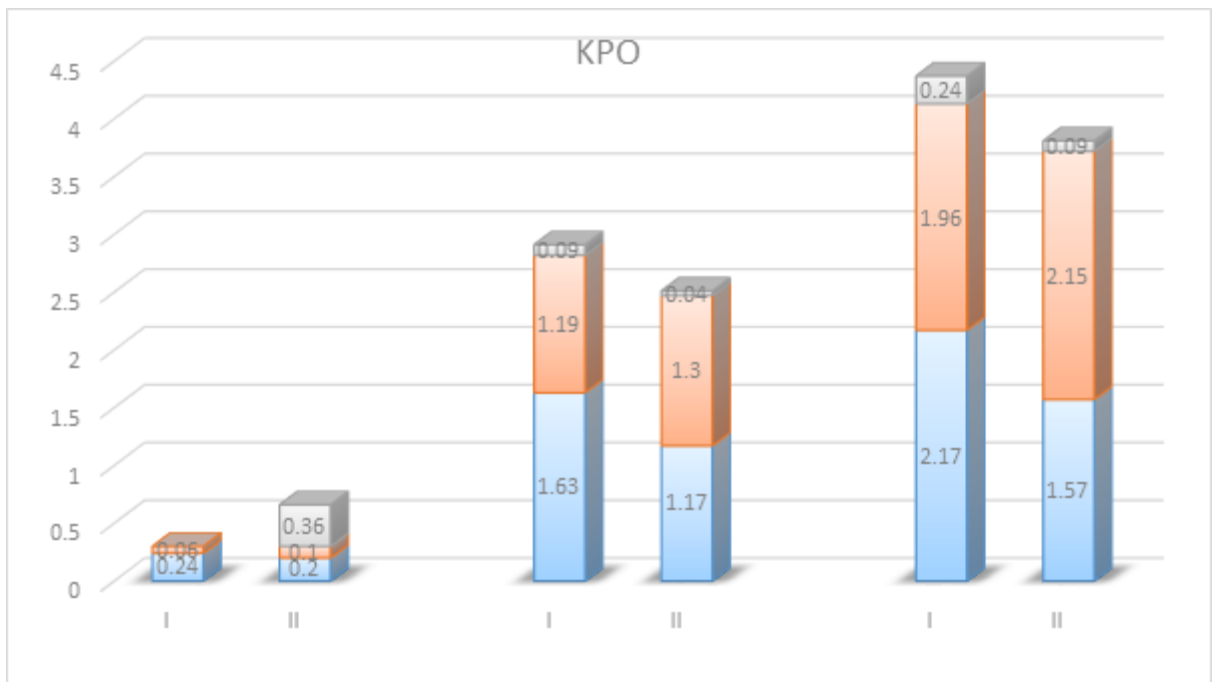
Results of research work. Main dental diseases in children among residents of Bukhara region - the average indicators of prevalence and intensity of dental caries and periodontal inflammatory diseases.

Based on the statistics presented above, indicators of the incidence of dental caries among early and middle-aged children of Bukhara region were formed, including 84% of children under six years of age have dental caries, and 75% of 12-year-old children have dental caries. Almost half of the 15-year-olds had periodontal inflammation.

The dynamics of indicators of the prevalence and intensity of dental caries are shown in Figures 1-3.



1. Picture. Prevalence of caries of permanent teeth in children of Bukhara region.



2 Picture. In B constant teeth of caries speed

Children between The analysis of disease dynamics showed the stability of the average indicators of the intensity of caries of temporary teeth in 6-year-old children during the 3- year period . There was a redistribution of components in the KPO: the number of carious teeth decreased by 15%, the number of filled teeth increased by 2.5 times compared to 2023. The development of caries of dental hard tissue in patients belonging to each age category decreased by 30% . The total number of tooth extraction procedures in 2020 has been reported to decrease by 50-65%. This, of course, indicates the development of clinical diagnosis and treatment methodology in dental practice.

A certain decrease in the distribution of signs of damage to periodontal tissues in early-age children can be seen in this diagram. In particular, in the last two years (2020-2021 vs. 2023-2024), the prevalence of periodontal tissue damage decreased by 15 and 16.5 percent, respectively.

The rate of dental caries in 12-year-old children living in the city was higher than in children living in rural areas, but the value of the "K" component was found to be almost the same in urban and rural children. The number of filled teeth ($p < 0.001$) was higher in children living in the city (1.32 ± 0.07) than in children living in the countryside (0.39 ± 0.04). Among 15-year-olds, the value of KPO indices was higher in urban than in rural districts (4.30 ± 0.21 and 2.48 ± 0.15 , $p < 0.001$). Also, the value of "K" and "P" components (1.84 ± 0.10 and 2.26 ± 0.11) is higher in urban than in rural children (1.43 ± 0.07 and 0.72 ± 0.06). was higher ($p < 0.001$).

Thus, in the analysis of dental caries rate, rural children showed a trend towards higher rates of caries in both temporary teeth and permanent teeth than their urban peers.

Summary. For the purpose of comprehensive dental treatment, the filling of cavities of milk teeth (fissure sealing), the appointment of vitamin D₃ and calcium preparations (under the supervision of a pediatrician), the exogenous application of fluoride varnish, training in personal hygiene of the oral cavity, and repeated courses of the treatment every 6-8 months are necessary. was the basis for preventing caries of the tissue. The values of the KPO index in 12-year-old children did not differ significantly, although the value of the K component was 2 times higher in rural children. In 15-year-old children, the average value of KPU index (3.31 ± 0.15) and its component "K" (1.85 ± 0.10) turned out to be higher ($p < 0.05$) compared to children from rural areas. Urban children (1.69 ± 0.08) were higher than their urban peers (2.80 ± 0.12 and 1.06 ± 0.06 , respectively), and the P component was higher in rural children (1.38 ± 0.07) ($p < 0.05$).

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