



CLINICAL CHARACTERISTICS OF CHILDREN UNDER INVESTIGATION FOR DENTAL CARIES AMONG CHILDREN

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Article history:	Abstract:
Received: December 20 th 2023 Accepted: January 14 th 2024 Published: February 21 st 2024	In modern dentistry, despite the use of various methods of prevention and treatment of dental hard tissue caries, it remains one of the most common diseases of dental hard tissue. There are hundreds of reasons that contribute to the development of caries in milk teeth. The most important of them are 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, epidemiological statistical review

On a global scale, research is being conducted on the diagnosis, treatment and prevention of caries among children, and the development of effective methods of 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).

A number of local and foreign scientists in their scientific research on the diagnosis, treatment and prevention of tooth hard tissue caries in children's age refer to specialists with the diagnosis of caries most often (5) and as the main factors of the emergence of the pathological process - socio-demographic, biological, hygienic and the type of nutrition is given (6), and it has also been shown that mental-emotional disorder is an important etiological factor of caries development (7).

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

In recent years, it has been recommended to use ROSS gel (1) in children with cerebral palsy for the prevention and treatment of dental caries in children, and Nanofluor gel (7), a representative of the new generation of bioactive fluorine-preserving Tooth Mousse, to treat initial caries in children with rheumatic diseases.

In addition, a program aimed at improving the quality of life (9) was recommended in cases related to physical discomfort and functional disorders, changes in the

child's emotional, social and family well-being, which led to the creation of new methods of prevention and treatment. The risk and severity of the disease is much higher in the case of poor oral hygiene in children, and such factors influence the development and clinical course of the disease in many ways (7).

In addition, a number of scientists have conducted scientific studies on early diagnosis of dental hard tissues among different layers of the population, assessment of risk factors, and improvement of 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 implemented in 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 (2018-2020) as the basis of the research, a collective 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:

Monitoring of prevalence and intensity of dental caries in the population of cities and districts of Bukhara region during a 3-year period;

- development of an individual preventive program and evaluation of its clinical effectiveness after its introduction among children and adolescents was carried out.

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 2018 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 2017 to 2019, 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 assessment of KPO indicators through an additional control group expanded, it includes 36 children from 6 to 15 years old who have not previously participated in preventive programs.

Research results. In 2019, the average indicators of the prevalence and intensity of the main dental diseases - dental caries and inflammatory periodontal diseases in children among the population of Bukhara region are shown in table 1

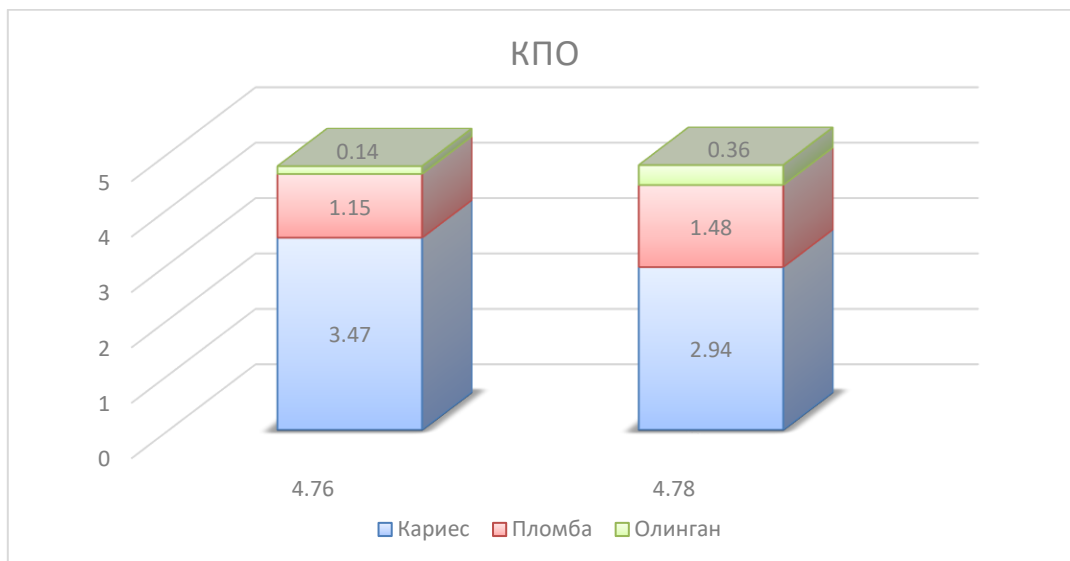
Table 1
Prevalence and speed of dental caries in the main age groups.

Ёш	Тишлар кариесининг тарқалганлиги	Тишлар кариесининг тарқалганлиги			
		К	П	О	КПО
вақтинчалик тишлар					
6	84%	2,94	1,48	0,36	4,78
доимий тишлар					
6-9	13%	0,20	0,10	0,00	0,30
10-12	72%	1,17	1,30	0,04	2,51
13-15	82%	1,57	2,15	0,09	3,81

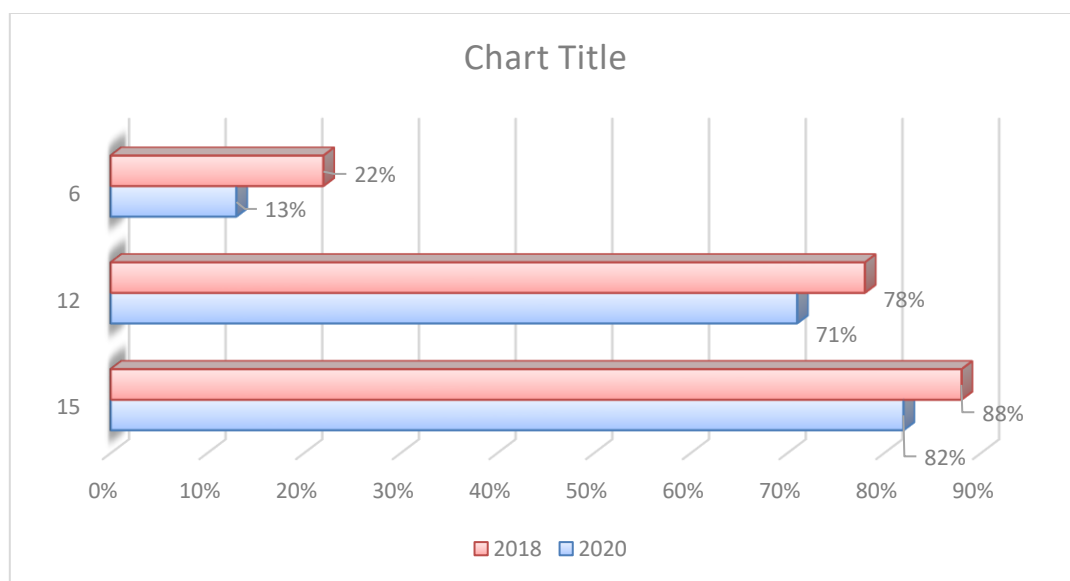
Based on the statistics presented above, indicators of the incidence of dental caries among early and middle-aged children of Bukhara region were formed, including 84% of children under six years of age have dental caries, and 75% of 12-year-old children

have dental caries. Almost half of the 15-year-olds had periodontal inflammation.

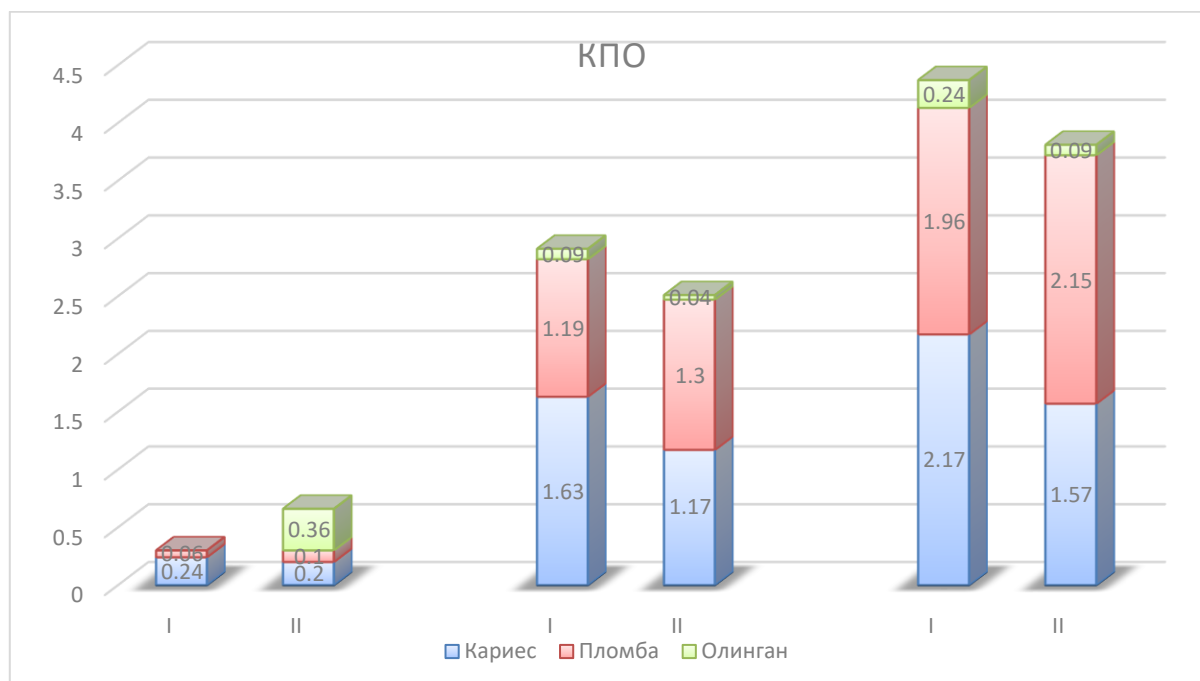
The dynamics of indicators of the prevalence and intensity of dental caries are shown in Figures 1-3.



1 picture. Intensity of caries of temporary teeth in 6-year-old children in 2018 (I) and 2020 (II)



2. Picture. Prevalence of caries of permanent teeth in children of Bukhara region in 2018 (I) and 2020 (II).



3 Picture. Intensity of caries of permanent teeth in children in 2018 (I) and 2020 (II).

The analysis of the dynamics of morbidity among children 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 2018. In 2020, it was noted that the gradation of dental caries development in 12-year-old children is low (WHO). The development of caries of the dental hard tissue in patients belonging to each age category is reduced 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 (compared to 2020-2021 and 2018-2019), the prevalence of periodontal tissue damage has 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 values of "K" and "P" components (1.84 ± 0.10 and 2.26 ± 0.11) are higher in urban children than in rural children (1.43 ± 0.07 and 0.72 ± 0.06). ($p < 0.001$).

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 counterparts.

CONCLUSION. For the purpose of comprehensive dental treatment, it is necessary to close the cavities of milk teeth (fissure sealing), prescribe vitamin D3 and calcium preparations (under the supervision of a pediatrician), exogenous application of fluoride varnish, training in personal hygiene of the oral cavity, and conducting repeated courses of treatment every 6-8 months. was the basis for caries prevention. 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 KPO 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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