IJIMM, Volume 2, Issue 6, 2024 ISSN: 2995-5319
http://medicaljournals.eu/index.php/IJIMM/issue/view/3
INTERNATIONAL JOURNAL OF INTEGRATIVE AND MODERN MEDICINE

To Study the Condition of Permanent Teeth in Children Living in the Navoi and Bukhara Regions, and to Increase the Effectiveness of the Prevention of Cytological Diseases

Afakova Mamura Shukhratovna
Bukhara State Medical Institute

Annotation: Among many anatomical systems, teeth provide abundant information related to the growth and development of the entire body. They change in two sequences, first as baby teeth and then as permanent teeth, so that these changes span the period from birth to the end of adolescence.

Keywords: dental caries in children, dental health of children, prevention, quality of life.

Many countries are interested in monitoring various public programs for the prevention of oral diseases, as well as assessing the quality of dental care for school-age children. Dental health indicators developed for European countries provide internationally comparable practices that can facilitate faster implementation of positive practices in national child dental care systems. Constant monitoring of the level of dental health of children is the most important component of the public health system [1].

Oral health is a key indicator of overall health, well-being and quality of life. Some dental diseases are considered public health problems because they can lead to nutritional deficiencies as well as aesthetic, speech, chewing, and swallowing problems. In addition, psychological disorders, especially those associated with low self-esteem, may be a consequence of oral health problems [3, 2].

Efforts to prevent and promote oral health have become a reality around the world. Despite significant improvements in oral health in children and adolescents, the prevalence of dental problems at this stage of life remains high, mainly in economically disadvantaged groups. Children and adolescents with dental problems may lag behind in social, physiological and mental development compared to people without oral disease. There is strong evidence that individuals with oral health conditions are more likely to be absent from class due to dental visits and will also experience greater difficulty concentrating, which will negatively impact school learning [4 , 5].

Purpose of the study. To study the condition of permanent teeth in children living in the Navoi and Bukhara regions, and to increase the effectiveness of the prevention of cytological diseases.

Materials and methods of research . Studies of the epidemiology of dental diseases conducted in many countries of the world indicate significant differences in the prevalence and intensity of dental caries, periodontal diseases, and the determining role of natural, social, everyday, cultural, as well as professional and production factors in the development of these processes. To conduct the study, a total of 210 children were examined, 95 boys and 115 girls, of which 103 children were examined at the Bukhara Regional Pediatric Dentistry, and the remaining 107 children were examined in a multidisciplinary clinic in a dental office in the city of Navoi.

Research result. The development of dental diseases is based on the action of numerous exogenous and endogenous factors, and often their combined influence. According to modern concepts, the main role in their occurrence is played by a violation of the compensatory mechanisms of the natural immunity of the oral cavity, which occurs against the background of individual predisposition, somatic pathology and exogenous factors. Studies of the epidemiology of dental diseases conducted in many countries of the world indicate significant differences in the prevalence and intensity of dental caries, periodontal diseases, and the determining role of natural, social, everyday, cultural, as well as professional and production factors in the development of these processes.

As is known, the oral cavity plays a special role in the perception of unfavorable environmental factors, and the state of the oral organs serves as an informative indicator that dynamically reflects changes in the state of the human body responding to their influences. Dental status is one of the main indicators of the general condition of the human body.

Dental caries, like most other diseases found in children, has a serious impact on the physical and mental health of children. Recently, according to research, the development of caries is influenced by many factors, one of which is the waste product of dental plaque bacteria. Baby teeth erupt “immature”, so they are not so resistant to caries and its complications. Poor hygiene, food debris, saliva and minerals lead to the development of plaque. Bacteria interact with carbohydrates, which come with food and release acids, which leads to the destruction of enamel, and, consequently, to the development of caries.

Dental studies were carried out in the following areas: determination of the dental caries intensity index (DCI), hygiene index (IG), Green-Vermillion index (OHI-S) and papillary-marginal-alveolar index (PMA).

Dental caries is a multifactorial disease of the hard tissues of teeth, caused by an imbalance between the processes of demineralization and remineralization towards the predominance of the demineralization process as a result of the action of general and/or local cariogenic factors. Dental caries and its complications contribute to the development of local and general pathologies of the dental system in children and adults: dentoalveolar anomalies, hypoplasia of permanent teeth, acute and chronic inflammatory diseases of the maxillofacial area, chroniosepsis, focal diseases of the body and others that significantly impair the quality of life .

That the lowest level of caries prevalence was in children of group II (B) - 6 (11.1%) which is 3 times more compared to the studied children I (A) - 2 (4.76%) and I (B) - 2 (3.28%) groups. The average level of caries prevalence was most noted in children of group I (B) - 39 (63.9%) and group II (B) - 30 (55.5%). And in the study group II (A) , most of all had a high level of caries prevalence - 22 (41.5%).

A study of the intensity of caries in the studied children showed that in group I (A) most of the children had low 11 (26.2%) and average 21 (50%) caries intensity indices. In the studied children of group II (A) - 1 (1.89%) and group II (B) -3 (5.55%) a very low intensity of caries was least identified. Children of group I (B) most had average – 23 (37.7%) and high – 16 (26.2%) caries intensity indices.

According to modern concepts, the leading role in the occurrence of complications of dental diseases is played by dental plaque and dental plaque, formed due to excessive consumption of low molecular weight carbohydrates. Dental plaque is an accumulation of leukocytes and desquamated epithelial cells of the oral mucosa. The duration of dental plaque maturation ranges from 1 to 3 days. A distinction is made between supragingival plaque, which is localized above the gum, and subgingival plaque, which extends into the gingival sulcus and is characterized by a predominance of anaerobic microorganisms. Metabolic processes in subgingival plaque occur with the participation of gingival fluid.

In the presence of easily digestible sugars, cariogenic microorganisms of the mouth produce organic acids, which, when exposed to the tooth enamel for a long time, provoke demineralization and the formation of structural changes. The intensity of bacterial colonization on the tooth surface is directly dependent on the amount and distribution of plaque on the teeth, which necessitates an objective assessment of its presence and intensity.

The next indicator studied was the Green-Vermillion index, which allows you to separately assess the amount of dental plaque and tartar; the results are shown in Table 1.

According to Table 1, it is clear that in all the children studied, regardless of gender and place of residence, not a single child with a good level of hygiene was identified. The children of group II (A) studied had the most satisfactory quality of hygiene - 10 (18.9%), which is 2 times more than in

children of group I (A) - 5 (11.9%). In children of group II (B) - 34 (62.9%) and group I (B) - 28 (45.9%), the largest number of subjects with unsatisfactory quality of hygiene was noted. Children of group II (A) – 20 (37.7%) and group I (B) – 24 (39.3%) had poor hygiene quality most of all .

Table 1. OHI - S indicators in children living in Bukhara and Navoi regions

OHI-S (score)	I (A) group (n=42)		II (A) group (n=53)		I (B) group (n=61)		II (B) group (n=54)	
	Abs .	%	Abs .	%	Abs .	%	Abs .	%
0.6	0	0	0	0	0	0	0	0
0.7-1.6	5	11.9	10	18.9	9	14.8	6	11.1
1.7-2.5	27	64.3	23	43.4	28	45.9	34	62.9
2.6	10	23.8	20	37.7	24	39.3	14	25.9

According to some scientists, with poor oral hygiene, the number of rod-shaped organisms and gram-negative cocci increases. Fusobacterium , Actinomyces and Veilonella appear on the 4th-5th day. Spirochetes, spirella and gram-positive rods make up 50% of the total microbial flora on the 7th day. The rate of plaque formation is of great importance. It has been established that the higher the rate of plaque formation, the more pronounced cariogenic properties it has.

The process of plaque formation is influenced by exogenous factors, such as the concentration of microorganisms; saliva viscosity; desquamation of the epithelium; the state of self-cleaning processes, taking into account the anatomical structure of the teeth and relationships with surrounding tissues; food ration; intensity of chewing. Epidemiological studies conducted in many countries around the world indicate a relationship between periodontal disease and oral hygiene. Most modern scientists believe that the leading role in the occurrence of gingivitis in 80% of cases belongs to microbial plaque. Mature dental plaque causes tissue irritation due to microorganisms and their toxins, which leads to damage to the connective epithelium and inflammation of the gums.

Consequently, there was a need to determine the condition of periodontal tissues in the children under study (Table 2.).

Table 2. Index assessment of the condition of periodontal tissues in children living in Bukhara and Navoi regions

RMA (%)	I (A) group (n=42)		II (A) group (n=53)		I (B) group (n=61)		II (B) group (n=54)	
	Abs .	%	Abs .	%	Abs .	%	Abs .	%
Up to 30%	1	2.38	3	5.66	1	1.64	3	5.56
31-60%	34	80.9	36	67.9	45	73.8	29	53.7
61%	7	16.7	14	26.4	15	24.6	12	22.2

When assessing the level of gum inflammation, it was found that children II (A) - 3 (5.66%) and II (B) - 3 (5.56%) groups of children had the most mild degree of gingivitis. In the studied children of group I (B), 45 (73.8%) most had an average degree of gingivitis. Group I (A) - 7 (16.7%) had the smallest number of children with severe gingivitis , which is 2.14 times less compared to group I (B) - 15 (24.6%).

Conclusions. It was found that the majority of the children studied - 126 (60%) - had an average degree of caries prevalence, and a mild degree of caries prevalence was detected 9.7 times less and was found in - 13 (6.19%). Severe prevalence of caries was observed in 71 (33.8%) children. An average degree of RMA was detected in 154 (73.3%) of the studied children living in Bukhara and Navoi regions, which is 19.3 times more often. The most severe 22 (41.5%) and mild 6 (11.1%) degrees of caries prevalence were identified in boys and girls living in the Navoi region. Average 45 (73.8%) and high 15 (24.6%) degrees of RMA in girls in the Bukhara region. And unsatisfactory 34 (62.9%) and poor 24 (39.3%) OXI-S levels are observed in girls living in Bukhara and Navoi regions. Based on

this, it can be assumed that the best indicators of dental status are determined in boys living in the Bukhara region.

BIBLIOGRAPHY

1. Avraamova , O. G. The influence of preventive measures on the maturation of dental enamel in children (literature review) / O. G. Avraamova , A. R. Zaborskaya . - Text: direct // Pediatric dentistry and prevention. - Moscow, 2015. - T. 14. - No. 4 (55). - P. 3-7.
2. Borodina, T.V. Efficiency of sealing fissures of chewing teeth in children / T.V. Borodina, E.Yu. Apraksina, A.P. Zheleznaya. - Text: direct // Medicine and education in Siberia . - Novosibirsk, 2015. - No. 5. - P. 42.
3. Dmitrieva, E.F. Radiation caries: clinical picture, treatment issues / E.F. Dmitrieva, N.S. Nurieva. - Text: direct // Problems of dentistry. - Ekaterinburg, 2014. - T 10. - No. 2. - P. 9-12.
4. Ivanova, G. G. Development of new approaches to determine the mineralization of teeth in children in clinical conditions (part II) / G. G. Ivanova, V. K. Leontyev, T. N. Zhorova . - Text: direct // Institute of Dentistry. - St. Petersburg, 2015. - No. 1 (66). - pp. 82-85.
5. Kobiyasova , I. V. Remineralizing therapy in children. Means, schemes and features of implementation / I. V. Kobiasova , S. K. Matelo . - Text: direct // Dental Journal. - Minsk, 2014. - T. 15. - No. 2. - P. 130-132.
6. Sadulloeva I. K. et al. Clinical Case a Rare Complication of Primary Infectious Thromboendocarditis in a 10-Year-Old Child //european journal of innovation in nonformal education. – 2022. – Т. 2. – №. 12. – С. 21-25.
7. Sadulloeva I. K. Ashurova NG Clinical and immunological features of congenital heart defects in adolescent girls //Europe's Journal of Psychology. – 2021. – Т. 17. – №. 3. – С. 172-177.
8. Sadulloeva I. K. Characteristics of immune system and functions of endocrine secretion in children with congenital heart disease after surgical correction //Ёш олимлар Республика илмий-амалий анжумани илмий ишлар тўплами. Термиз. – 2017. – С. 135-136.
9. Fozilov U. A. Diagnosis and Prevention of Caries Development in Orthodontic Treatment //World Bulletin of Social Sciences. – 2021. – Т. 3. – №. 10. – С. 97-104.
10. Bahodirovna A. D. Effect of Treatment Methods for Chronic Stress Headaches on Electroencephalographic Parameters //Central Asian Journal of Medical and Natural Science. – 2021. – Т. 2. – №. 5. – С. 315-318.
11. Bahodirovna A. D. Tension headaches and psychovegetative disorders //Web of Medicine: Journal of Medicine, Practice and Nursing. – 2023. – Т. 1. – №. 1. – С. 27-29.
12. Ахмедова Д. Б. Бирламчи бош оғриқларини амбулатор шароитда ташхислашдаги хатоликлар //Неврология ва нейрохирургия тадқиқотлар журнали.-Тошкент. – 2020. – Т. 4. – №. 4. – С. 6-8.
13. Fozilov U. A. Prevention of caries development during orthodontic treatment //World Bulletin of Social Sciences. – 2021. – Т. 3. – №. 10. – С. 61-66.
14. Abdurazzakovich F. U. The Role and Importance of Obturators in the Optimization of the Treatment of Dental Caries //European Journal of Research Development and Sustainability. – 2021. – Т. 2. – №. 6. – С. 84-86.
15. Fozilov, U. A., and Olimov S. Sh. "Improving The Treatment of Abnormal Bite Caused by Severe Damage To The Jaw." *Journal of Advanced Zoology* 44.S-5 (2023): 370-378.
16. Abdurazzakovich F. U. Development of innovative diagnostic and prophylactic dental obturators aimed at preventing the development of caries and its complications in the orthodontic treatment of patients. – 2021.

17. Fozilov U. A. Evaluation of the efficiency of Demineralizing Agents in Treatment with Removable and Fixed Orthodontic Equipment in Children //International Journal on integrated Education. – 2020. – Т. 3. – №. 7. – С. 141-145.
18. Fozilov U. A. Clinical and Diagnostic Characteristics of the Development of Tooth Decay in Children during Orthodontic Treatment with Removable and Non-removable Equipment //JournalNX. – С. 227-228.