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Features of Caries Morbidity in Preschool Children

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Abstract. The problem of dental caries in children has remained relevant for many years. Dental caries is one of the most common diseases of preschool and school-age children. There is a tendency for the prevalence of caries to increase with age.

Keywords: caries, preschool age, baby teeth, penetrating caries, rickets, prematurity, hypotrophy.

Caries in children at different age periods does not occur in the same way. The course of caries of baby teeth is influenced by anatomical and physiological features, the general resistance of the child's body and the high reactive properties of childhood.

The carious process covers a large number of teeth — 8, 10 or more, sometimes there is a lesion of all 20 teeth. There may be several carious cavities in one tooth, localized on different surfaces. Such caries is also called acute, acute, blooming, galloping. All this is multiple caries, which destroys the child's dental system. Such caries often develops after acute infectious diseases (measles, scarlet fever, sore throat, etc.), which were severe; sometimes after the illness, a child has many new cavities. Some chronic diseases (tonsillitis, chronic diseases of the bronchopulmonary system, etc.) are also accompanied by multiple caries.

Multiple caries affects all tooth surfaces, in a short time the crowns are completely destroyed, the pulp necrotizes and only the roots remain in the jaw; the lesion occurs sequentially and spreads to all teeth shortly after eruption, and by the age of 3-4 the child remains without teeth.

Rickets is still an urgent problem in young children, the prevalence of which remains high in the first year of life and, according to the results of large-scale epidemiological studies, ranges from 55-70%. Rickets is based on disorders of phosphorus-calcium metabolism and the system regulating phosphorus-calcium homeostasis (metabolites of vitamin D, parathyroid and thyroid glands). After severe forms of rickets, a child's "hypocalcemic titer" is often formed, characterized by clinical manifestations of hypocalcemia for many years ("juvenile osteopathies").

It can be considered that the maxillary system in rickets is a target organ and there is a pathogenetic relationship of rickets with disorders of the formation of the maxillary system, insufficient mineralization of teeth and deviations in the laying of permanent teeth, delayed jaw growth and malocclusion, early and multiple dental caries.

Caries of baby teeth develops faster than permanent ones, quickly reaches the enamel-dentine junction, penetrates into the dentine and spreads in it (penetrating caries). This is due to the thin enamel coating and the special structure of the dentin, which has little-mineralized zones reaching the pulp. A certain role is played by the low activity of the pulp. Therefore, in childhood, especially in weakened young children, the carious process develops very quickly from initial forms to complications in the form of pulpitis and periodontitis, dentin is softened, light yellow, easily removed by an excavator in whole layers.

The carious process seems to penetrate through hard tissues (enamel, dentin) and quickly spreads to the pulp.

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Caries of the milk frontal teeth, starting on the labial surface in the neck area, spreads around the entire crown, capturing the approximal and lingual surfaces. The process deepens, and the crown easily breaks off at the level of circular caries, only the roots remain.

Circular caries of baby teeth is very similar to the so-called radiation caries, which rapidly develops as a complication after radiation therapy for neoplasms and leads to rapid tooth loss.

It is believed that the following factors are important in the development of circular caries of baby teeth: the crowns of baby teeth are mineralized in utero, and their structure depends on the course of the mother's pregnancy. The neck of a baby tooth mineralizes shortly after the birth of a child, when his body moves into new conditions of existence: the nature of nutrition changes — intraplacental to natural or, unfortunately, more often to artificial feeding. Nutritional conditions, living conditions of his life, diseases that can develop immediately after birth, acute respiratory infections, dyspepsia and other diseases can adversely affect the mineralizing dental tissues. The neck of the tooth during this period is the most weakened part of the tooth, as a result, its mineralization is incomplete, and it subsequently turns out to be susceptible to the development of caries.

Circular caries occurs mainly in premature infants, with hypotrophy, rickets, tuberculosis, and in children who are on artificial feeding. In these cases, the release of calcium salts from already mineralized tissues may occur.

Circular caries is characterized by the rapid spread of the process in the direction of the pulp. It should be noted that children almost never treat acute pulpitis due to circular caries. There are two possible outcomes here: the first is when a child with reduced body resistance has pulp death without any clinical manifestations and chronic periodontitis gradually develops; The second is when, in case of circular caries, the root pulp is isolated from the crown pulp due to replacement dentin, the crown of the tooth broke off together with the crown pulp, and the root pulp remains viable and retains an intact periodontal. The root pulp is tightly "walled up" with pigmented dentin, and the tooth, in the presence of such caries and live pulp, continues to "serve" the child for some time. This option is less common in children.

Based on the leading manifestations of caries — the number of carious teeth and cavities, their localization, and the increase in caries after a year — the degree of activity of the process is determined. When comparing individual clinical signs in children with different degrees of caries activity, differences in the development of the pathological process are revealed.

Clinically, in children, as in adults, caries is isolated in the stage of spots (macula cariosa), superficial (caries superficialis), medium (caries media) and deep (caries pro-funda). The first two forms of caries are combined into initial caries.

Caries in the spot stage can be detected in very young children, literally from 6-8 months. Babies often have lesions of the upper incisors, chalky spots without a natural shine appear at the neck of the tooth, small at first, and then spreading throughout the vestibular surface of the crown.

Caries in the spot stage is asymptomatic and is detected only during a preventive examination by a doctor or an attentive mother.

Sometimes carious spots in children are found after removing a white sticky plaque from the enamel surface.

With an intensive course, carious spots are light, without clear boundaries, as if blurred, prone to constant progression. The larger the area of the spot, the more intense the course of the pathological process and the more likely a carious cavity (superficial caries) is formed, therefore, the size of the carious spot is important for determining the severity of the process.

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With slow-flowing demineralization, prone to suspension of the pathological process, carious spots can be pigmented, but they are much less common in children.

As soon as roughness begins to be determined during probing, this means that superficial caries develops and a cavity forms within the enamel. Children are characterized by the formation of small carious cavities against the background of a large carious chalky spot. Not all carious spots can be detected during examination: it is difficult to identify carious spots on approximal surfaces, especially when they are located on adjacent teeth. Sometimes a carious spot covers a large layer of soft plaque. Subsurface carious spots are difficult to detect. This is possible only after careful drying of the tooth surface.

Carious spots of permanent teeth should be distinguished from the spotted form of systemic hypoplasia and fluorosis. Most often, carious spots form on the neck of the tooth. In systemic hypoplasia, there is a lesion of teeth of one period of formation (mineralization) and the process develops in the same plane. The spots, clearly defined, are more often located in the middle of the vestibular surface or closer to the cutting edge. With fluorosis, there is a lesion of teeth of different periods of formation; there are multiple white or brown spots of different sizes, which can be located on any surface of the tooth. The higher the fluoride content in the water, the larger the size of the spots and the nature of the enamel changes. In childhood, systemic hypoplasia is very common, especially in children who have suffered from acute or chronic diseases (dyspepsia, dysentery, rickets, etc.) during the mineralization of the crowns of permanent teeth. Foci of endemic fluorosis are also quite common. It is not uncommon for children who may have caries and fluorosis, caries and systemic hypoplasia to consult at the clinic. In some cases, one child may have carious spots, systemic hypoplasia, and a spotty form of fluorosis. This is due to the formation (mineralization) of enamel, which depends on the age of the child, the content of fluorides in drinking water, and the diseases suffered during this period. Carious spots on baby teeth are sometimes differentiated from hypoplasia of baby teeth.

Chalky spots with hypoplasia of baby teeth appear in those areas that form in one period. Hypoplasia of baby teeth is detected more often in premature infants.

Superficial caries. In young children, this form of caries is rare, more often there is a combination of a large carious spot, against which the softening of the tissue is determined and

a small carious cavity is formed within the enamel. The softened enamel is removed with a small effort by an excavator. Most children do not complain. Sometimes there are short-term pains from sweet, sour, salty. A small carious cavity with superficial caries should be differentiated from the furrowed, cup-shaped form of systemic hypoplasia, erosive form of fluorosis, and medium caries.

Medium caries. In this form of caries, the child most often does not complain, and the doctor discovers the carious cavity during a preventive examination. Sometimes there are minor pains from sweets — sweets, jams. After careful mouth rinsing, the pain stops. Upon examination, a shallow carious cavity filled with softened dentin is found.

In the acute course of caries (active demineralization), dentin is light, moist, easily removed by an excavator, after which a dense light bottom remains.

The structural features of the hard tissues of baby teeth, their weakness, and a relatively thin layer of dentin with a large pulp cavity, compared with permanent teeth, contribute to the rapid transition of medium to deep caries.

Differential diagnosis of moderate caries in children should be carried out with chronic and gangrenous pulpitis and chronic periodontitis. With all these diagnoses, there are no complaints or they are poorly expressed. The carious cavity may be shallow.

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To clarify the diagnosis, the doctor should very carefully monitor the child's reaction to the preparation of the carious cavity. If, during the preparation, the most

if soreness occurs in the sensitive area of the enamel-dentine junction, then this is an average caries. When diagnosing an average caries, the doctor's attention should be attracted by the absence of a painful reaction during treatment with a drill. The calm behavior of the child can be explained by the partial or complete death of the pulp. Since the dentine tubules in baby teeth are wide and short, infection access into the tooth cavity with subsequent inflammation or pulp death is greatly facilitated.

With gangrenous pulpitis (when the pulp has died for a significant period) and chronic periodontitis (the pulp is completely necrotized), there are no painful sensations during preparation. Medium caries is the most common form of caries in children.

Deep caries. In this form of caries, the bulk of the dentin within the carious cavity is destroyed. Only a thin layer of dentin separates the carious cavity from the pulp.

The diagnosis of deep caries of baby teeth is rarely made and with great caution, since with the active course of caries, replacement dentin is almost not formed, especially in often ill young children.

The child complains of pain from cold and hot — thermal stimuli. Consequently, the pulp is already involved in the pathological process. But in young children, it can be very difficult to diagnose deep caries, since the only objective reason is the depth of the carious cavity. At the same time, with the same depth of the carious cavity in a child, the pulp may be intact, necrotic or chronically inflamed. The doctor should perform the preparation and removal of abundantly moist dentin from the bottom of the carious cavity very carefully and not strive for maximum removal of softened dentin, otherwise the tooth cavity can be opened.

With slow-flowing caries (chronic), it is possible to treat the deep carious cavity more thoroughly, since it is filled with denser dentin.

The diagnosis of deep caries of permanent teeth is more often made in schoolchildren. This form of caries of baby teeth develops very quickly and turns into pulpitis.

Sometimes, in caries-susceptible children, a painful deep carious cavity is found in permanent unformed incisors under a thick layer of soft plaque. High enamel permeability, wide dentine tubules of a permanent unformed tooth and poor hygiene contribute to the rapid development of caries.

Deep caries in older children should be differentiated from medium caries, acute focal and chronic fibrous pulpitis. Deep caries is distinguished from the average by pain from thermal and mechanical stimuli. With pulpitis, the pain is paroxysmal, more prolonged.

Literature

1. Dzhuraevna, K. M. (2023). THE FREQUENCY OF DENTAL DISEASES IN CHILDREN (LITERATURE REVIEW). *Лучшие интеллектуальные исследования*, *12*(1), 159-168.
2. Dzhuraevna, K. M. (2023). FEATURES OF THE OCCURRENCE OF DENTAL DISEASES IN CHILDREN. *Лучшие интеллектуальные исследования*, *12*(1), 178-185.
3. Хайитова, М. Д. (2023). Особенности Возникновение И Течение Кариеса Зубов. *Research Journal of Trauma and Disability Studies*, *2*(12), 356-363.
4. Хайитова, М. Д. (2023). КЛИНОКО-МОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВОЗНИКНОВЕНИЯ СТОМАТОЛОГИЧЕСКИХ ЗАБОЛЕВАНИЙ У ДЕТЕЙ. *Лучшие интеллектуальные исследования*, *12*(1), 169-177.

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http://journals.academiczone.net/index.php/rjtds

5. Хайитова, М. Д. (2023). РАСПРОСТРАНЕННОСТЬ И РАСПРЕДЕЛЕНИЕ ТРЕЩИН НА ЗАДНИХ ЗУБАХ СРЕДИ ВЗРОСЛЫХ ПАЦИЕНТОВ (ОБЗОР ЛИТЕРАТУРЫ). *Лучшие интеллектуальные исследования*, *12*(1), 186-195.
6. Хайитова, М., & Тайлакова, Д. (2023). ВЗГЛЯД СТОМОТОЛОГА НА ГИГЕНУ ПОЛОСТИ РТА У ДЕТЕЙ. *Инновационные исследования в современном мире: теория и практика*, *2*(23), 58-59.
7. Salokhiddinovna, X. Y. (2023). MALLORY WEISS SYNDROME IN DIFFUSE LIVER LESIONS. *Journal of Science in Medicine and Life*, *1*(4), 11-15.
8. Salohiddinovna, X. Y. (2023). SURUNKALI KASALLIKLARDA UCHRAYDIGAN ANEMIYALAR MORFO-FUNKSIONAL XUSUSIYATLARI. *Ta'lim innovatsiyasi va integratsiyasi*, *10*(3), 180-188.
9. Халимова, Ю. С. (2024). КЛИНИКО-МОРФОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ВИТАМИНА D В ФОРМИРОВАНИЕ ПРОТИВОИНФЕКЦИОННОГО ИММУНИТА. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, *36*(3), 86-94.
10. Saloxiddinovna, X. Y. (2024). CLINICAL FEATURES OF VITAMIN D EFFECTS ON BONE METABOLISM. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, *36*(5), 90-99.
11. Saloxiddinovna, X. Y. (2024). CLINICAL AND MORPHOLOGICAL ASPECTS OF AUTOIMMUNE THYROIDITIS. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, *36*(5), 100-108.
12. Saloxiddinovna, X. Y. (2024). MORPHOFUNCTIONAL FEATURES BLOOD MORPHOLOGY IN AGE-RELATED CHANGES. *Лучшие интеллектуальные исследования*, *14*(4), 146-158.
13. Saloxiddinovna, X. Y. (2024). CLINICAL MORPHOLOGICAL CRITERIA OF LEUKOCYTES. *Лучшие интеллектуальные исследования*, *14*(4), 159-167.
14. Saloxiddinovna, X. Y. (2024). Current Views of Vitamin D Metabolism in the Body. *Best Journal of Innovation in Science, Research and Development*, *3*(3), 235-243.
15. Axmedova, M. (2023). USE OF COMPUTER TECHNOLOGY AT THE STAGES OF DIAGNOSIS AND PLANNING ORTHOPEDIC TREATMENT BASED ON ENDOSSEAL IMPLANTS. *International Bulletin of Medical Sciences and Clinical Research*, *3*(11), 54-58.
16. Ахмедова, М. (2020). НАРУШЕНИЯ ЭНДОТЕЛИАЛЬНОЙ ФУНКЦИИ ПРИ РАЗВИТИИ АФТОЗНОГО СТОМАТИТА. *Достижения науки и образования*, (18 (72)), 65-69.
17. Axmedova, M. (2023). THE IMPACT OF SOCIOCULTURAL FACTORS ON THE PERVASIVENESS OF DENTAL CARIES AS A COMPLEX HEALTH CONDITION IN CONTEMPORARY SOCIETY. *International Bulletin of Medical Sciences and Clinical Research*, *3*(9), 24-28.
18. Ахмедова, М. К. (2024). ОБЩИЕ ПРИЧИНЫ КАРИЕСА ЗУБОВ. *Лучшие интеллектуальные исследования*, *14*(4), 77-85.
19. Qilichovna, A. M. (2024). CLINICAL SIGNS WHEN ACCOMPANIED BY DENTAL DISEASES AND METABOLIC SYNDROME. *ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ*, *39*(5), 116-24.
20. Ахмедова, М. К. (2024). Профилактика Стоматологических Заболеваний У Беременных. *Research Journal of Trauma and Disability Studies*, *3*(3), 66-72.

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http://journals.academiczone.net/index.php/rjtds

21. Valijonovna, O. M. (2023). Aseptic and antiseptic in therapeutic dentistry. Best Journal of Innovation in Science, Research and Development, 2(10), 517-521.
22. Valijonovna, O. M., & Bahodirovna, N. M. (2023). TREATMENT OF HYPERESTHESIA AFTER TEETH WHITENING. Научный Фокус, 1(1), 459-465.
23. Valijonovna, O. M., & Bahodirovna, N. M. (2023). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. PEDAGOGICAL SCIENCES AND TEACHING METHODS, 2(23), 216-218.
24. Valijonovna, O. M., & Bahodirovna, N. M. (2022). PREVENTION AND TREATMENT OF COMPLICATIONS AFTER WHITENING. Scientific Impulse, 1(4), 1201-1207.
25. Valijonovna, O. M. (2023). ROLE OF ICON TREATMENT IN MODERN DENTISTRY. Best Journal of Innovation in Science, Research and Development, 117-120.
26. Valijonovna, O. M. (2024). BASIC AND ADDITIONAL METHODS OF EXAMINATION OF DENTAL PATIENTS. IMRAS, 7(1), 322-327.
27. Орифхўжайева, М. В. (2024). УН ЗАВОДИ ХОДИМЛАРИДА ОГИЗ БУШЛИГИДА УЧРАЙДИГАН КАСАЛЛИКЛАР ВА УЛАРНИНГ ПРОФИЛАКТИКАСИ. PEDAGOG, 7(1), 79-83.