THE FREQUENCY OF DENTAL DISEASES IN CHILDREN (LITERATURE REVIEW)

Khayitova Mokhinur Dzhuraevna
Bukhara Innovative Medical Institute, Bukhara, Uzbekistan

The article presents the results of a literature review that reflect the current understanding of the somatogenic nature of dental pathology. The review included articles that highlight the results of clinical trials. Articles in Ukrainian, English and Russian were taken for study and analysis. The analysis of the articles was carried out taking into account the level of their evidence.

Keywords: dental diseases, somatic pathology, children

The deterioration of the health of school-age children is the result of the complex influence of factors of various origin: burdened heredity, socio-economic, educational and medical organizational problems, environmental factors [1, 2]. The characteristic features of negative trends in the dynamics of the health of the child population remain an increase in the number of children with chronic pathology and morphofunctional abnormalities, a high incidence rate [3, 4]. An important socially determining factor in the formation of children's health for many years has been an educational institution [5-7].

The results of scientific research indicate stable trends towards deterioration in the health of schoolchildren: 45% of schoolchildren are diagnosed with chronic diseases, and two thirds of relatively healthy children are children with various morphofunctional disorders [8-10]. According to comprehensive medical examinations during the training, a significant deterioration in the health of students with an increase in general pathological lesions was found. At the beginning of the study (in the first grade) The leading pathology was mental and behavioral disorders, respiratory diseases, pathology of the musculoskeletal system, diseases of the circulatory system and endocrine system. During his studies in elementary school, significant structural changes occurred, and respiratory diseases became the most common, endocrinopathy came in second place, mental and behavioral disorders came in third, diseases of the eye and its appendage apparatus took the fourth position. During the transition to the basic school, the pathology of the endocrine system became relevant, which at this stage took the first rank place, mental and behavioral disorders moved to the second position, respiratory diseases — to the

third, musculoskeletal system — to the fourth. The following gender differences were found in the dynamics of the distribution of schoolchildren by health groups. In elementary school and at the beginning of primary school (fifth-seventh grades) The second group of health was more often registered among girls than among boys, and the third — among boys, in high school (eighth-ninth grades) the opposite picture was observed. As a result, the authors concluded that the dynamics of indicators of pathological lesions, harmony of physical development, and health groups among schoolchildren during their studies in primary and secondary schools is undulating, with negative trends in the first three years of study, at the end of fifth grade and at the beginning of sixth grade, eighth grade and at the end of ninth grade This reflects the critical periods of formation of students' health associated with the child's adaptation to learning conditions and the processes of his growth and development [1].

The relationship of dental diseases with general somatic pathology is well known [11-13]. Programs for the prevention of caries and dental anomalies are developed and implemented annually. The issues of children's health improvement are constantly discussed. However, in most cases, the programs being developed are aimed at preventing a particular nosological form. The low effectiveness of such programs is most likely due to the lack of an integrated approach and a system of interdisciplinary interaction between pediatricians in prenosological diagnosis and early elimination of predisposing factors for the development of the disease [14]. Currently, research is increasingly being conducted, the results of which indicate that the condition of the dental system is considered as an indicator of somatic health. Studies [15, 16] have convincingly shown that the changes that occur in the dental status of children with various health abnormalities are a reflection of the disorders occurring in the body. This point of view corresponds to the ideas about the unity of the structure and function of human body systems [17]. Currently, there is a progressive increase in non-carious lesions of the hard tissues of the teeth, especially such pathology as systemic enamel hypoplasia. According to various authors, the frequency of lesions of the oral mucosa in endocrine disorders ranges from 2 to 80%. Diabetes mellitus belongs to the most common endocrine pathology in children. There is a tendency to "rejuvenate" diabetes. Its development most often occurs at 3 - 6 and 11 - 12 years of age. Diabetes mellitus in children is usually severe, mild forms and remissions are rare. Periodontal diseases, in children with diabetes mellitus and changes in the mucous membrane of the tongue are recorded in 85% of

cases. Catarrhal gingivitis (63%) and chronic periodontitis (22%) are the most common [23].

The incidence of caries in children is greatly influenced by: genetic predisposition, concomitant somatic pathology, social and hygienic lifestyle factors [24]. In recent years, there has been a steady trend of destruction of temporary teeth in young children: barely having time to erupt in 6-8 months of a child's life, after 2-3 months, the teeth begin to undergo a carious process. The dysfunctional state of the dental system in young children is determined by the level of health of a pregnant woman – the level of her general and dental health. Pregnant women do not undergo timely oral sanitation. The state of their dental health, which is directly related to general health, definitely affects the health of the unborn child [25]. In chronic somatic diseases of hereditary or congenital origin, dental caries and hypoplastic process in the enamel of teeth are often severe, inflammatory diseases of the oral mucosa (stomatitis, gingivitis) occur more often, enamel and dentin hypomineralization is more pronounced.

When studying the prevalence, intensity and structure of dental caries in primary school children with intrauterine growth retardation, the prevalence of caries of temporary occlusion was 95%, permanent – 40%, the intensity of dental caries with intrauterine growth retardation was 1.5 times higher in lactic occlusion and 2 times in permanent. A pathoanatomic examination of a human fetus with intrauterine growth retardation revealed signs of retardation of the parotid salivary gland [34]. As a result of the examination of young children, high rates of caries intensity of temporary teeth and poor hygiene were found in children with genetically determined connective tissue pathology [35]. The dental morbidity of children should be considered in relation to the pathology of the digestive system. This relationship indicates not only the topographical relationship between the oral cavity and the gastrointestinal tract, but also the close reflex connection of the mucous membrane of the oral cavity, stomach and intestines. A high prevalence and intensity of caries was revealed in children with acid-dependent diseases associated with Helicobacter pylori, with a burdened prenatal history [36]. Diseases of the digestive system are among the most common pathological conditions of childhood and account for 25.3% – 31.3% of the total incidence [37]. Inflammatory diseases of the digestive tract are quite often accompanied by damage to the dental system [38]. Changes in the oral cavity in children with gastrointestinal pathology are more pronounced in comparison with children without somatic pathology and consist in: a high prevalence of diseases of the red border of the lips (characterized by angular cheilitis

and chronic lip cracks); swelling and ictericity of the oral mucosa, a change in the relief of the dorsal surface of the tongue in the form of a furrow; in the change of the papillary apparatus of the tongue (characterized by a combination of hypertrophy with atrophy of the fungal and filamentous papillae of the tongue, desquamation), atrophic changes in the filamentous papillae of the tongue are not characteristic; in the formation of plaque on the dorsal surface of the tongue; in the presence of dense, yellow-brown plaque on the teeth; in a high level of prevalence and intensity of the inflammatory reaction of periodontal tissues. A high level of IgA and sIgA in saliva was revealed in comparison with practically healthy children. The presence of gastrointestinal pathology leads to an aggravation of indicators reflecting the state of microbiocenosis of the oral cavity [39].

The features of the state of dental health and indicators of dental morbidity in children with chronic gastroduodenitis and functional disorders of the stomach were studied. It has been established that the formation and progression of lesions of hard dental tissues in children with the above pathology is largely due to a violation of the acid-base balance of the oral fluid and the high demineralizing properties of plaque. The incidence of caries and non-carious lesions of hard dental tissues in children with celiac disease and malabsorption syndrome is quite high and progresses with age. The authors obtained data that made it possible to compile a dental symptom complex of a child with celiac disease and malabsorption syndrome: meteorological and angular cheilitis, chronic recurrent aphthous stomatitis, chronic catarrhal glossitis, caries and non-carious lesions of hard dental tissues, delayed eruption of temporary and permanent teeth. The prevalence of the carious process in children with diseases of the gastroduodenal region was 83.71%, which is significantly higher than in practically healthy children (67.5%). It has been found that overweight and obese children are more likely to develop vitamin D deficiency. The researchers note that the likelihood of developing hypovitaminosis D is influenced by the time of year, taking dietary supplements containing vitamin D, the level of milk consumption, the financial status of the family and the amount of time spent in front of the TV / computer. The level of physical activity had no effect on the risk of developing hypovitaminosis D in overweight or obese children. According to Gavrilenko M. A., the state of oral hygiene in children with blood clotting pathology is unsatisfactory; the prevalence of caries in all age groups is high. This indicator is highest in children aged 2-4 years. A high rate of dental anomalies was noted in connection with the early removal of temporary and permanent teeth in children with the indicated pathology, as well as the presence of chronic inflammatory periodontal tissue

diseases in these children. Among various ecologically caused diseases, diseases of the cardiovascular system occupy a special place, since the negative impact of the urbanized and man-made environment is a trigger in the development of individual nosologies of the cardiovascular system. In recent years, there has been a progressive increase in the number of these diseases in children, since the child's body, which is in the stage of growth and development, is most susceptible to environmental factors.

Reliable correlations of cardiac activity and hemodynamics were found in a state of physical rest, after physical exertion and in the recovery period. Zinc was more significant for the cardiovascular system than copper, which found a correlation only with the duration of the cardiac cycle. Adverse environmental factors reduce the level of somatic health of children, and also contribute to an increase in the intensity of the development of dental pathology. At the same time, the presence of general somatic diseases in children who live in ecologically polluted regions has a pronounced effect on the development of dental diseases, which leads to decompensation, primarily in primary school age during the period of temporary occlusion. The works of some researchers present the results of the cariesogenic effect of heavy metals such as iron, zinc, cobalt and cadmium, which accelerate the processes of glycolysis in the body and are calcium antagonists. Clinical studies have shown that permanent teeth in 7-year-old children under conditions of excessive exposure to heavy metals have high rates of caries prevalence, which exceed 35%. Prevalence rates of more than 76% are among 12-year-olds. At the same time, the intensity of caries was not marked by high indicators. Over the past three decades, there has been a tendency for the growth of dental and maxillary abnormalities in children, which is due to the action of persistent pathogenetic mechanisms that maintain a consistently high level of prevalence in the population. These mechanisms are associated with environmental, genetic factors, and the deterioration of the health of women and children: the high frequency of complicated pregnancy and childbirth, the growth of chronic diseases, the relative increase in the frequency of congenital and hereditary pathology. Establishing the relationship between the pathology of the musculoskeletal system and the incidence of teeth, it is shown that the prevalence of dental caries and malocclusion in children with pathology of the musculoskeletal system is significantly higher than in somatically healthy children. It was found that in children with diseases of the musculoskeletal system, dental damage is manifested by multiple caries with high intensity and an increased erasability index against the background of deterioration of the processes of self-cleaning of the oral cavity. An important medical and social problem is the high prevalence of periodontal diseases,

a tendency to progress with the formation of a complex of pathological changes that lead to the loss of the dental retention function of the periodontium and the dental apparatus as a whole.

Thus, analyzing numerous studies on the above problem, it can be argued that dental pathology is somatogenic in nature and therefore it is necessary to radically change the principles of prevention in dentistry, which should be based on somatogenic genesis. The development of a system for the prevention of dental diseases in children in accordance with the principles of scientific validity, interdisciplinary interaction, dynamic patient monitoring for personalized prevention and treatment is of particular relevance [14].

Literatura:

1. Хайитова, М. Д. (2023). Особенности Возникновение И Течение Кариеса Зубов. Research Journal of Trauma and Disability Studies, 2(12), 356-363.
2. Ахмедова, М. (2020). НАРУШЕНИЯ ЭНДОТЕЛИАЛЬНОЙ ФУНКЦИИ ПРИ РАЗВИТИИ АФТОЗНОГО СТОМАТИТА. Достижения науки и образования, (18 (72)), 65-69
3. 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.
4. Халимова, Ю. С., & Шокиров, Б. С. (2022). МОРФОФУНКЦИОНАЛЬНЫЕ ООБЕННОСТИ ВНУТРЕННИХ ОРГАНОВ ПРИ ХРОНИЧЕСКОМ АЛКОГОЛИЗМЕ. Scientific progress, 3(2), 782-789.
5. Halimova, Y. S. (2023). Morphological Aspects of Rat Ovaries When Exposed to Caffeine Containing Drink. BEST JOURNAL OF INNOVATION IN SCIENCE, RESEARCH AND DEVELOPMENT, 2(6), 294-300.
6. Халимова, Ю. С. (2021). MORPHOFUNCTIONAL ASPECTS OF THE HUMAN BODY IN THE ABUSE OF ENERGY DRINKS. Новый день в медицине, 5(37), 208-210.
7. Olimjonovna, K. O. (2023). AYOLLARDA REPRODUKTIV TIZIM FAOLIYATINING O'ZGARISHIDA GIPOTERIOZ BILAN BIRGA KECHISHI. Ta'lim innovatsiyasi va integratsiyasi, 10(3), 174-179.
8. Саидова, Л. Б., & Комилжонова, О. О. Патологическое течение гипотиреоза в климактерическом период в йододеффицитной зоне

Узбекистана. In International Conference Science and Education/Uluslararasi konferans bilim ve eg'itim//-2021-15may-49b.

9. Халимова, Ю. С. (2022). МОРФОФУНКЦИОНАЛЬНЫЕ ОСОБЕННОСТИ ЯИЧНИКОВ КРЫС ПРИ ВОЗДЕЙСТВИИ КОФЕИН СОДЕРЖАЩИХ НАПИТОК. Gospodarka i Innowacje., 23, 368-374.

10. Ergasheva Gulshan Toxirovna. (2023). QANDLI DIABET 2-TUR VA SEMIZLIKNING O'ZARO BOG'LIQLIK SABABLARINI O'RGANISH . Ta'lim Innovatsiyasi Va Integratsiyasi, 10(3), 168–173.

11. Ergasheva Gulshan Tokhirovna. (2023). Study of clinical characteristics of patients with type 2 diabetes mellitus in middle and old age. Journal of Science in Medicine and Life, 1(4), 16–19.

12. Saidova, L. B., & Ergashev, G. T. (2022). Improvement of rehabilitation and rehabilitation criteria for patients with type 2 diabetes.

13. Ergasheva, G. (2023). METHODS TO PREVENT SIDE EFFECTS OF DIABETES MELLITUS IN SICK PATIENTS WITH TYPE 2 DIABETES. International Bulletin of Medical Sciences and Clinical Research, 3(10), 104-108.

14. Salokhiddinovna, X. Y. (2023). INFLUENCE OF EXTERNAL FACTORS ON THE MALE REPRODUCTIVE SYSTEM. EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE, 3(10), 6-13.

15. Halimova, Y. S., Shokirov, B. S., & Khasanova, D. A. (2023). Reproduction and Viability of Female Rat Offspring When Exposed To Ethanol. Procedia of Engineering and Medical Sciences, 32-35.

16. Salokhiddinovna, H. Y. (2023). Morphological Features of the Human Body in Energy Drink Abuse. EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION, 3(5), 51-53.

17. Халимова, Ю. С., & Шокиров, Б. С. (2022). СОВРЕМЕННЫЕ ДАННЫЕ О МОРФО-ФУНКЦИОНАЛЬНЫХ АСПЕКТОВ ЧЕЛОВЕЧЕСКОГО ОРГАНИЗМА ПРИ ЗЛОУПОТРЕБЛЕНИЕ ЭНЕРГЕТИЧЕСКИМИ НАПИТКАМИ. PEDAGOGS jurnali, 4(1), 154-161.

18. Rakhmatova, D. B., & Zikrillaev, F. A. (2022). DETERMINE THE VALUE OF RISK FACTORS FOR MYOCARDIAL INFARCTION. FAN, TA'LIM, MADANIYAT VA INNOVATSIYA, 1(4), 23-28.

19. ГТ, Э., & Саидова, Л. Б. (2022). СОВЕРШЕНСТВОВАНИЕ РЕАБИЛИТАЦИОННО-ВОССТАНОВИТЕЛЬНЫХ КРИТЕРИЕВ БОЛЬНЫХ

С СД-2 ТИПА. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 2(12), 206-209.

20. Toxirovna, E. G. (2023). O'RTA VA KEKSA YOSHLI BEMORLARDA 2-TUR QANDLI DIABET KECHISHINING KLINIKO-MORFOLOGIK XUSUSIYATLARI. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 33(1), 164-166.

21. Эргашева, Г. Т. (2023). Изучение Клинических Особенностей Больных Сахарным Диабетом 2 Типа Среднего И Пожилого Возраста. Central Asian Journal of Medical and Natural Science, 4(6), 274-276.

22. Halimova, Y. S. (2023). Morphofunctional Aspects of Internal Organs in Chronic Alcoholism. AMALIY VA TIBBIYOT FANLARI ILMIY JURNALI, 2(5), 83-87.

23. Shokirov, B. S. (2021). Halimova Yu. S. Antibiotic-induced rat gut microbiota dysbiosis and salmonella resistance Society and innovations.

24. Халимова, Ю. С., & Шокиров, Б. С. (2021). Репродуктивность и жизнеспособность потомства самок крыс при различной длительности воздействия этанола. In Актуальные вопросы современной медицинской науки и здравоохранения: Материалы VI Международной научно-практической конференции молодых учёных и студентов, посвященной году науки и технологий,(Екатеринбург, 8-9 апреля 2021): в 3-х т.. Федеральное государственное бюджетное образовательное учреждение высшего образования «Уральский государственный медицинский университет» Министерства здравоохранения Российской Федерации.

25. Khalimova, Y. S. BS Shokirov Morphological changes of internal organs in chronic alcoholism. Middle European scientific bulletin, 12-2021.

26. Шокиров, Б. С., & Халимова, Ю. С. (2022). ДИСБИОЗ ВЫЗВАННЫЙ АНИБИОТИКАМИ КИШЕЧНОЙ МИКРОБИОТЫ КРЫС И УСТОЙЧИВОСТЬ К САЛМОНЕЛЛАМ. Scientific progress, 3(2), 766-772.

27. Salokhiddinovna, X. Y. (2023). Clinical Features of the Course of Vitamin D Deficiency in Women of Reproductive Age. EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION, 3(11), 28-31.

28. Шокиров, Б., & Халимова, Ю. (2021). Антибиотик-индуцированный дисбиоз микробиоты кишечника крыс и резистентность к сальмонеллам. Общество и инновации, 2(4/S), 93-100.

29. Salokhiddinovna, X. Y. (2023). MORPHOLOGICAL CHANGES IN PATHOLOGICAL FORMS OF ERYTHROCYTES. EUROPEAN JOURNAL OF MODERN MEDICINE AND PRACTICE, 3(11), 20-24.

30. Saloxiddinovna, X. Y. (2023). ERITROTSITLAR PATOLOGIK SHAKLLARINING MORFOLOGIK O'ZGARISHLARI. ОБРАЗОВАНИЕ НАУКА И ИННОВАЦИОННЫЕ ИДЕИ В МИРЕ, 33(1), 167-172.

31. Шокиров, Б., & Халимова, Ю. (2021). Antibiotic-induced rat gut microbiota dysbiosis and salmonella resistance. Общество и инновации, 2(4/S), 93-100.

32. Шокиров, Б. С., & Халимова, Ю. С. (2021). Пищеварительная функция кишечника после коррекции экспериментального дисбактериоза у крыс бифидобактериями. In Актуальные вопросы современной медицинской науки и здравоохранения: Материалы VI Международной научно-практической конференции молодых учёных и студентов, посвященной году науки и технологий,(Екатеринбург, 8-9 апреля 2021): в 3-х т.. Федеральное государственное бюджетное образовательное учреждение высшего образования «Уральский государственный медицинский университет» Министерства здравоохранения Российской Федерации.

33. Salokhiddinovna, X. Y. (2023). Anemia of Chronic Diseases. Research Journal of Trauma and Disability Studies, 2(12), 364-372.

34. Nutfilloevich, H. K., & Akhrorovna, K. D. (2023). COMPARATIVE CLASSIFICATION OF LIVER MORPHOMETRIC PARAMETERS IN THE LIVER AND IN EXPERIMENTAL CHRONIC ALCOHOLISM. International Journal of Cognitive Neuroscience and Psychology, 1(1), 23-29.

35. Nutfilloevich, H. K., & Akhrorovna, K. D. (2023). COMPARATIVE CLASSIFICATION OF LIVER MORPHOMETRIC PARAMETERS IN THE LIVER AND IN EXPERIMENTAL CHRONIC ALCOHOLISM. International Journal of Cognitive Neuroscience and Psychology, 1(1), 23-29.

36. Латипов, И. И., & Хамроев, Х. Н. (2023). Улучшение Результат Диагностике Ультразвуковой Допплерографии Синдрома Хронической Абдоминальной Ишемии. Central Asian Journal of Medical and Natural Science, 4(4), 522-525.

37. Salokhiddinovna, X. Y. (2023). MALLORY WEISS SYNDROME IN DIFFUSE LIVER LESIONS. Journal of Science in Medicine and Life, 1(4), 11-15.

38. Salohiddinovna, X. Y. (2023). SURUNKALI KASALLIKLARDA UCHRAYDIGAN ANEMIYALAR MORFO-FUNKSIONAL XUSUSIYATLARI. Ta'lim innovatsiyasi va integratsiyasi, 10(3), 180-188.

39. Ergasheva Gulshan Toxirovna. (2023). QANDLI DIABET 2-TUR VA SEMIZLIKNING O'ZARO BOG'LIQLIK SABABLARINI O'RGANISH . Ta'lim Innovatsiyasi Va Integratsiyasi, 10(3), 168–173.

40. Ergasheva Gulshan Tokhirovna. (2023). Study of clinical characteristics of patients with type 2 diabetes mellitus in middle and old age. Journal of Science in Medicine and Life, 1(4), 16–19.

41. Уроков, Ш. Т., & Хамроев, Х. Н. (2018). Клинико-диагностические аспекты механической желтухи, сочетающейся с хроническими диффузными заболеваниями печени (обзор литературы). Достижения науки и образования, (12 (34)), 56-64.

42. Хамроев, Х. Н., & Уроков, Ш. Т. (2019). ВЛИЯНИЕ ДИФФУЗНЫХ ЗАБОЛЕВАНИЙ ПЕЧЕНИ НА ТЕЧЕНИЕ И ПРОГНОЗ МЕХАНИЧЕСКОЙ ЖЕЛТУХИ. Новый день в медицине, (3), 275-278.

43. Хамроев, Х. Н., & Ганжиев, Ф. Х. (2023). Динамика структурно-функциональных нарушение печени крыс при экспериментальном алгоколние циррозе. Pr oblemsofmodernsurgery, 6.

44. Narzulaeva, U. (2023). PATHOGENETIC MECHANISMS OF MICROCIRCULATION DISORDERS. International Bulletin of Medical Sciences and Clinical Research, 3(10), 60-65.