

THE EFFECT OF DIET ON ORAL HEALTH IN CHILDREN

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Abstract: The quality and chemical composition of food products have a huge impact on human health, in particular on oral health. This article compares the condition of the hard tissues of the teeth, the level of hygiene and the health of the gums in children with different nutrition systems. The study involved 98 children aged 6-12 years, who were divided into two groups depending on the principles of nutrition in their families. The level of oral health was assessed by the following indices: the intensity of caries, the Fedorov-Volodkina hygiene index and the PMA index. As a result of our research, we came to the conclusion that the level of hygiene, enamel caries resistance and gum condition in children from families whose parents adhere to the principles of proper nutrition is much better.

Keywords: nutrition, dental health, caries intensity, Fedorov-Volodkina hygiene index, PMA index.

Аннотация: Качество и химический состав пищевых продуктов оказывают огромное влияние на здоровье человека, в частности, на здоровье полости рта. В данной статье проводится сравнение состояния твердых тканей зубов, уровня гигиены и здоровья десен у детей с разной системой питания. В исследовании приняли участие 98 детей в возрасте 6-12 лет, которые были разделены на две группы в зависимости от принципов питания в их семьях. Уровень здоровья полости рта оценивали по следующим показателям: интенсивность кариеса, индекс гигиены Федорова-Володкиной и индекс РМА. В результате проведенных исследований мы пришли к выводу, что уровень гигиены, кариесрезистентность эмали, состояние десен у детей из семей, родители которых придерживаются принципов правильного питания, значительно лучше.

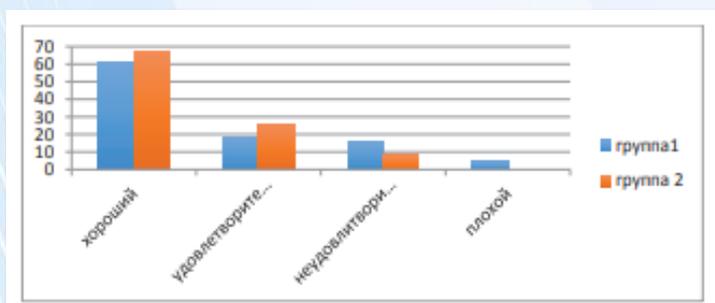
Ключевые слова: питание, здоровье зубов, интенсивность кариеса, гигиенический индекс Федорова-Володкиной, индекс РМА.

Relevance: The factors contributing to the occurrence of carious lesions of the teeth are diverse [2]. In modern society, there are unfavorable trends related to nutrition, a modern person includes a lot of carbohydrates in his diet that have a high caries potential, and children are no exception [1,4,14]. The condition of the hard tissues of the teeth, gums, the rate of plaque formation, and the stimulation of salivation depend on the nature of food [3,5]. Therefore, the problem of studying the effect of carbohydrate foods on oral health is relevant.

Purpose: To determine the level of hygiene, the tendency to caries and gum inflammation in children with different diets.

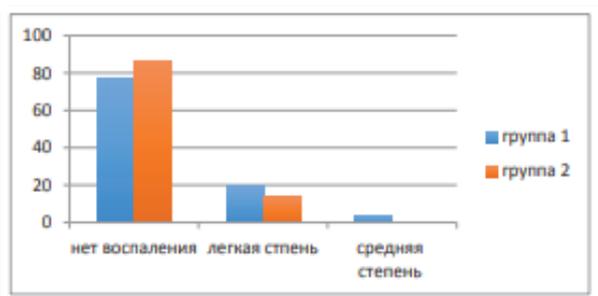
Materials and methods of research: The study involved 98 children aged 6-12 years: group 1 is 49 children from families where parents do not adhere to the principles of proper nutrition (control group); group 2 is 49 children whose parents adhere to the principles of proper nutrition and vaccinate their children (observation group). The condition of the oral cavity tissues was assessed using the PMA index (papillary - marginal - alveolar), which makes it possible to assess the inflammatory process in the gum. To assess the incidence of dental caries, we used indicators of the prevalence and intensity of caries - KPU + kp (cariou, sealed, removed).

Research results. When analyzing the data of the Fedorov - Volodkina hygiene index, it was found that in children from group 2 (observation group), a good hygiene index corresponding to 1.1-1.5 points was determined in 66.6% of children, a satisfactory hygiene index, respectively, 1.6-2.0 points was established in 25% of children, an unsatisfactory hygiene index corresponding to 2.1-2.5 points was observed in 8.3% of the subjects. Poor and very poor oral hygiene index, corresponding to 2.6 - 3.4, and 3.5-5.0 points, were not detected in representatives of this group. As for the indicators of the Fedorov - Volodkina index in children from group 1 (control group), they differ somewhat: indicators indicating a good state of oral hygiene were determined in 61% of cases, 18.8% had a satisfactory indicator of oral hygiene, unsatisfactory hygienic condition was observed in 15.3%, poor condition was noted in 4.9% of children, a very poor level of hygiene in this group of children was not detected.



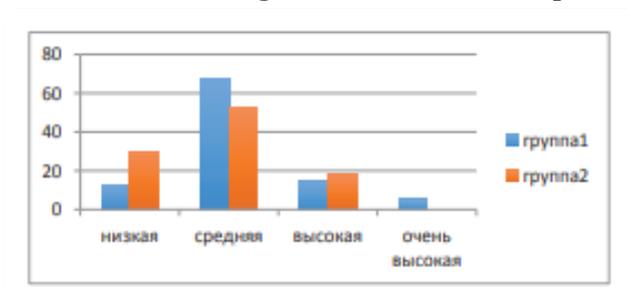
Drawing. 1 Comparison of the hygiene index in children 1 and 2.

When analyzing the data on the PMA index, the following results were obtained: 86.3% of children from group 2 (observation group) had no gum inflammation, the remaining 13.7% had minor inflammation (up to 20% of the total number of teeth), which, according to the evaluation criterion, corresponds to a mild degree of gingivitis. A slightly different picture was observed in children of group 1 (control group): the absence of an inflammatory process in the gum tissues was observed in 76.8% of children, 19.3% of the subjects from this group had a mild degree of gingivitis, 3.9% of children had an average degree of gingivitis severity.



Drawing. 2 Comparison of gingival inflammation in children of groups 1 and 2.

The indicators of the prevalence and intensity of caries were as follows: in children of the 2nd group (observation group), the prevalence of caries was 47.9%, which indicates an average level. The intensity was as follows: a low caries intensity index (1.2 - 2.6) was set at 30.1%, average intensity indicators were recorded in 52.1%, caries intensity index 4.5 - 6.5, which corresponds to a high level of lesion, was observed in 17.8% of children. Analyzing the results of the 1st group (control group), there is a tendency to increase the prevalence and intensity of caries compared to the 2nd group. The prevalence of dental caries in this group was 64 % . Regarding the intensity, the indicators are as follows: low intensity of caries was detected in 12.7%, the average level was 67.2%, a high intensity indicator was observed in 14.5% of children, 5.4% were children who had an intensity index of 6, 6 and higher, which correspondsto a very high level.



Drawing. 3. Comparison of caries intensity among children of groups 1 and 2.

Conclusion. The PMA index shows that the condition of the gum tissues in children from group 2 is slightly better compared to group 1, and as one of the factors, this is influenced by the diet. A five-time meal, taking into account the 2nd breakfast (fruit) and afternoon snack (cottage cheese, 0 20 40 60 80 100 there is no inflammation mild stpen medium degree group 1 group 2 0 20 40 60 80 low medium high very high group1 group2 142 cheesecakes), by children whose parents adhere to the principles of proper nutrition, helps to eliminate "snacking", during which the diet of children from families with a conventional food system, there were products harmful to teeth, such as sweet carbonated drinks, a variety of sticky sweets, etc. According to the research results, the indicators of the

intensity and prevalence of caries indicate an increase in the incidence rate in children of the 1st group compared with the 2nd.

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TAYANCH HARAKAT IA'ZOLARIDA NUQSONIBO'LGAN BOLALARNING OG'IZBO'SHLIG'I BIOLOGIYASI

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Maktab yoshidagi bolalar salomatligining yomonlashish iirsiyat, ijtimoiy-ekologik, ta'lim va tibbiy-tashkiliy muammolar, atrof-muhitomillari bilan kuchaygan turli xil kelib chiqadigan omillarning kompleks ta'sir natijasidir. Mushak-skelet tizimining patologiyasi va tishlarning paydo bo'lishi o'rtasida aniq bog'liqlik o'rnatildi. Tayanch-harakat tizimi patologiyasi bo'lgan bolalarda tish kariyesi va deformatsiyasining tarqalishi somatik jihatdan sog'lom bolalarga qaraganda ancha yuqori. Maktab o'quvchilarini kompleks tibbiy ko'rikdan