

Tactics of Orthodontic Treatment of Children and Preventive Methods of Developing Caries

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Relevance of research. In recent years, the country has undergone significant changes in the field of orthodontics. If earlier solvable apparatus were used in 90% of cases, at present they are only used in 16% of observations. Today, 84% of patients receive treatment on the floor using non – removable-hardened apparatus. Therefore, in the course of orthodontic treatment, the problem of prophylaxis of dental caries and periodont diseases has become serious. The practical significance of the issue is expressed by the prevalence of dental caries and periodont tissue diseases in the population. It has also been proven that improperly administered orthodontic treatment leads to similar changes. Among the additional methods for the diagnosis of the early stages of the caries process, an intensifier in the demineralization of enamel, a call for fluorescence of tooth hard tissues, modern apparatus are worth noting. It is known that fluorescence occurs when a beam with a wavelength falls on a fluorescing material, then it is constantly shifted in the direction of the red spectrum, radiating light with a different length of the wave. In connection with intact and caries, the damaged enamel is fluoresced after absorbing rays of different lengths of waves. It has been shown that the modern arsenal of diagnostic apparatus is able to effectively assess the initial stage of enamel demineralization using laser fluorescence and quantitative beam induced laser fluorescence. To prevent such complications, various remedies have been proposed that contain calcium and fluorine. However, they did not always have the desired effect, since unsatisfactory oral hygiene was observed in 65-67% of patients who underwent the examination, while local fluoridation, due to the rapid loss of fluoride calcium crystals, had insufficient effect [1.3.5.7.9.11.13].

A deep fluoridation method with typhenfluorides has been proposed to prevent and treat tooth hard tissue damage, in which they have been found to secrete fluorine at high concentration over a long period of time, allowing reliable remineralization. Currently, many of the principled aspects of prevention in the process of orthodontic treatment have not yet fully found their solution. There is no data on the use of deep fluoridation in orthodontics. In the course of orthodontic treatment, the issues of assessing the effectiveness of dental enamel resistance and remineralizing agents using Cappas have not been sufficiently disclosed. Therefore, the perfection of preventive measures in the process of orthodontic treatment is an urgent task. At the primary examination, professional hygiene was carried out with the selection of individual means and methods of oral hygiene, and a complex of treatment-preventive measures was recommended: a) to carry out endogenous prophylaxis by reducing the frequency of carbohydrate intake, denying their consumption between meals whenever possible, making it a habit to chew the oral cavity after each meal. It is necessary to increase the self-cleaning of the oral cavity by eating vegetables and fruits, which leads to the release of a large amount of saliva, which reduces the viscosity of the saliva and wash away food residues from the oral cavity. It is strictly forbidden to eat solid products - biscuits, caramels, chips, ice cream and carbonated drinks. It is recommended to consume products that are rich in micro - and Macroelements, vitamins, amino acids and protein.

b) perform exogenous prophylaxis by carrying out training in professional oral hygiene and individual hygiene procedures every 3 months during a scheduled visit 3 times before the installation of an orthodontic device and during orthodontic treatment. For quality oral care during orthodontic treatment, it is recommended to use curative-prophylactic toothpastes, which have anti-caries, anti-inflammatory, antimicrobial and anti-carash effects. v) " R.O.C.S. Application of exogenous drug prophylaxis of dental caries using the drug" Medical Minerals " and kappa. For clients with identified signs of caries, tooth processing is necessary 2 times with an interval of two weeks every 3 months and

2 times with an interval of 7 days during orthodontic treatment before fixing the braces. For children without caries, it is advisable to cover the prophylaxis of its development with the drug only at the time of orthodontic treatment after 2 weeks every 6 months. g) endogenous drug prophylaxis of dental caries should be carried out with the mineral-vitamin drug "oligovit" and the drug "Immunal", which has an immunostimulating effect. The drug "Oligovit" and "Immunal" are recommended to customers without symptoms of caries, respectively, to drink 1 time per year for 1 month from 1 dragee per day and 1 time per year for 5 Weeks 3 drops per day. Customers who have been diagnosed with caries symptoms need to recommend "oligovit" 2 times a year for 1.5 months from 1 dragee per day, "Immunal" - 3 times from 15 drops 2 times a year for 6 weeks.

In the A1 control group (N=26; children with EOT), teeth were examined with clinical and light-inducing fluorescence without the use of prophylactic agents in dynamics. Only ordinary hygiene of the oral cavity was carried out. To clients in the V1 Group (N=20; children with EOT) for preventive purposes, twice every 6 months with an interval of 14 days, and every 6 months with a repeated course "R.O.C.S. Medical Minerals". The cream was rubbed with the help of a kappa and fixed. In the group A2 (Control, n=77; children with a cat), simple hygiene of the oral cavity was carried out. Prophylactic agents were not used. In the V2 Group (N=78; children with Kot), two times with an interval of 14 days in order to increase the functional resistance of the enamel, and with a repeated course every 6 months, and 2 times every 3 months after 7 days for prophylaxis in the process of orthodontic treatment "R.O.C.S. Medical Minerals" was used. The cream was rubbed with the help of a kappa and fixed. R for enamel remineralization. O.C.S. Medical Minerals gel. Gel caries is recommended for the purpose of prophylaxis of the process and is effective in primary caries. A special plenka is formed, which contains minerals (calcium, phosphorus and magnesium), which form crystals of enamel hydroxyapatite. There is also microflora normalizing xylite (anti-caries effect). Hardened pasients applied the gel using a brush after cleaning, limiting nutrition for 30 minutes [2.4.6.8.10.12.14].

Gel has had great effect when applied in Cappas (standard polyurethane). They also recommended repeating the treatment as much as possible between meals during the day. Customers with EOT have been advised to apply the gel thinly to the kappa-elainer on the cleaned teeth and fix it on the teeth (Figure 1).



Figure 1. Preparation of kappa for applique and R.O.C.S. Medical Minerals gel application

The product can be applied constantly, as it is safe, which is especially important for customers who have been on orthodontic treatment for a long time. Thus, taking into account the prognosis, the

approach to the choice of measures is individualized, in clients who are in treatment with Kot and EOT, the complex of preventive measures of treatment is adapted to the specialization of the intensity, structure and severity of dental diseases. Before orthodontic treatment in children, it was found that inadequate oral hygiene, prevention of dental diseases and desire to take care of the oral cavity were necessary. Practical oral care skills were good in 12% of children at high risk of developing dental caries, and unsatisfactory in 67%. In the final phase of the study, the hygienic condition was found to be satisfactory on the OHI-s index in preventive groups, and unsatisfactory on the RNR index from 1.83 ± 0.14 to around 2.21 ± 0.36 . In orthodontic treatment dynamics, the underlying legitimacy of tooth hard tissue demineralization processes, manifested by increased enamel wavelength around the breccias, and the transition from green spectrum to red. The incidence of dental solid tissue light induced fluorescence was 2 times higher, with caries occurring in the A1 and A2 control groups compared to children in the V1 and V2 main groups. Against the background of a decrease in calcium indicators and a normative level of RN, high indicators of phosphorus were detected in children undergoing orthodontic treatment.

Conclusion. "R.O.C.S. Medical Minerals" and the use of Cappa, as well as sanitary-promotional work, the conduct of individual and professional oral hygiene allowed to increase the resistance of tooth hard tissues after 18 months after orthodontic treatment, stabilization of the development of primary caries, as evidenced by a clinical assessment using light-induced fluorescence. The developed complex of modern preventive measures makes it possible to increase the quality of providing orthodontic assistance to prevent the development of the main forms of dental disease in children and their complications.

LITERATURE USED.

1. **Fozilov Uktam Abdurazakovich.** Evaluation of the Efficiency of Remineralizing Agents in Treatment with Removable and Fixed Orthodontic Technique in Children. // American Journal of Medicine and Medical Sciences -2021. №11(2).: DOI: 10.5923/j.ajmms.20211102.14 P.134-136(14.00.00.№2)
2. **Fozilov Uktam Abdurazakovich.** Development of innovative diagnostic and prophylactic dental obturators aimed at preventing the development of caries and its complications in the orthodontic treatment of patients // Web of Scientist international scientific research journal. ISSN: 2776-0979 -vol. 2, Issue 9, Sep. 2021.- P. 18-23(**Impact Factor:** 7.565)
3. **Fozilov Uktam Abdurazakovich.** The role and importance of obturators in the optimization of the treatment of dental caries // European Journal of Research Development and Sustainability (EJRDS) Available Online at: <https://www.scholarzest.com> -vol. 2 No. 6, June -2021 ISSN: 2660-5570. -P.84-86 (**Impact Factor:** 7.455)
4. **Fozilov Uktam Abdurazakovich.** Clinical-diagnostical characteristics of development of caries in children in orthodontic treatment with disclosed and restricted equipment // Central asian journal of medical and natural sciences. – Jan-Feb 2021. Vol. 02, issue 01. | ISSN: 2660-4159 -P. 15-19 (**Impact Factor:** 6.754)
5. **Uktam Abdurazakovich Fozilov.** Diagnosis and prevention of caries development in orthodontic treatment. // World Bulletin of Social Sciences (WBSS) Available Online at: <https://www.scholarexpress.net>. - October- 2021 Vol. 3, ISSN: 2749-361X -P. 97-104 (**Impact Factor:** 7.545)
6. **Uktam Abdurazakovich Fozilov.** Prevention of caries development during orthodontic treatment. // World Bulletin of Social Sciences (WBSS) Available Online at: <https://www.scholarexpress.net> .- October- 2021. vol. 3, ISSN: 2749-361X -P. 61-66 (**Impact Factor:** 7.545)
7. **Fozilov Uktam Abdurazakovich.** Improvement of Early Diagnosis and Orthodontic Treatment in Children with Dental Anomalies and Deformations. // American Journal of Medicine and Medical Sciences .-2022, №12(5): 554-557 DOI: 10.5923/j.ajmms.20221205.20. - P. 555-557

8. **Fozilov Uktam Abdurazzokovich., Olimov Sidik Sharifovich.** Early Detection, Treatment And Rehabilitation Management Of Dental And Maxillary Anomalies And Deformation In Children Of Early Age // Journal of Pharmaceutical Negative Results 2022-ISSN: Print -0976-9234. -vol. 13 SPECIAL ISSUE 09 (2022) 11-06. P.1168-1172 (Scopus)
9. **Фозиллов Уктам Абдураззокович.** Анатомические и функциональные особенности языка, приводящие к нарушению речи, у пациентов с расщелиной губы и нёба. // Журнал медицина и инновации 3 (7) Август, 2022 г. С. 234-242(14.00.00;№22)
10. **Fozilov U.A.** Development of a step-by-step treatment algorithm for children with cleft lip and cleft palate, creation of optimum methods of speech development.// New day in medicine.11 (49) 2022. P. 201- 206(14.00.00;№22)
11. **Фозиллов У.А., Олимов С.Ш.** Дентоалвеоляр аномалиялари ва деформацияси бўлган болаларда кузатиладиган иккиламчи касалланиш ҳолати статистикасини таҳлил қилиш. // Хоразм Маъмун академияси ахборотномаси: илмий журнал.-№6/2 (102), Хоразм Маъмун академияси, -2023. –Б.276 -280 (14.00.00;№22).
12. **Fozilov Uktam Abdurazzoqovich.** Modern Methods Of Treating Severe Pathologies Through The Diagnosis Of Tooth-Jawformations In Early-Aged Children. // Journal of Advanced Zoology ISSN: 0253-7214. -vol 44 Issue S-5 Year 2023.- P. 293-300 (Scopus)
13. **Fozilov U.A, Olimov S.Sh.** Improving The Treatment of Abnormal Bite Caused by Severe Damage To The Jaw. // Journal of Advanced Zoology ISSN: 0253-7214 -vol 44 Issue S-5 Year 2023 - P.370-378 (Scopus)
14. **Фозиллов У.А., Олимов С.Ш.** Раннее выявление, лечение аномалий и деформаций зубов и верхней челюсти у детей раннего возраста // Stomatologiya. – 2022. – №. 4 (89). – С. 53-57. (14.00.00; № 12)