

оригінальністю та своєчасністю самостійних рішень та способів їх здійснення у важких умовах тренування та змагань.

Залежно від особливостей прояву вольових зусиль можна будувати висновки про рівні розвитку вольових якостей волейболістів [2].

Отже, у волейболі, який вважається одним з найбільш популярних видів спорту у світі з початку його виникнення, вміння володіти своїм психічним станом є запорукою успішного виступу у змаганнях різного рівня, тому важливо вміти застосовувати прийоми особистісної саморегуляції в спортивній діяльності.

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SPECIAL FEATURES OF PERMANENT TEETH CARIES PROPHYLACTIC IN CHILDREN WITH DIABETES MELLITUS

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Annotation. The method of preventing permanent teeth caries in children with diabetes includes professional teeth cleaning, teaching the rules of oral hygiene, namely, BIOMED CALCIMAX toothpaste and mouthwash "Biorepair" 2 times a day, the use of dental cream applications "Tooth Mousse", prescribing means for individual oral hygiene, the dietary supplement "Rotavit Calcium" 1 sachet per day during meals, the probiotic "Baktoblis" 1 tablet per day.

Key words: caries, tooth, children, diabetes.

Diabetes mellitus is an endocrine disease characterized by a chronic increase of glucose in blood due to an absolute or relative deficiency of the pancreatic hormone insulin. The first signs and symptoms of diabetes mellitus can appear in the oral cavity, so you need to pay special attention to changes in the oral cavity, this can also contribute to the detection of early stages of endocrine disease, as well as the correct assessment of local manifestations of general pathology and the choice of treatment methods [1].

Decreased salivation (dry mouth) in persons with diabetes mellitus leads to disruption of tooth enamel remineralization

processes. The number of bacteria in dental plaque grows and secrete acids that easily penetrate the enamel and contribute to the demineralization processes of the hard tooth tissues. Multiple caries is accompanied by the destruction of enamel on all surfaces, especially on the vestibular, proximal surfaces and in the fissures, and in the cervical area of the front teeth [2].

The aim of the research work. To improve the prevention of permanent teeth caries in children with type 1 diabetes mellitus, who live in regions with high fluoride content in drinking water, by developing a treatment plan and prevention complex.

This task was solved by creating a method for the prevention of permanent teeth caries in children with diabetes mellitus, which includes professional teeth cleaning, teaching the rules of oral hygiene, the use of dental cream applications "Tooth Mousse" (GC, Japan), prescribing means for individual oral hygiene such as BIOMED CALCIMAX toothpaste (STS HOLDING GROUP LTD, Bulgaria) 2 times a day, prescribing the dietary supplement "Rotavit Calcium" (Slavia Pharm S.R.L., Romania) 1 sachet per day during meals, the probiotic "Bactoblis" (Bluestone-Pharma, Switzerland) 1 tablet per day.

The proposed method of preventing permanent teeth caries of in children with type 1 diabetes mellitus, who lives in regions with high fluoride content in drinking water is carried out as follows: the professional oral hygiene is made, and children are taught the rules of individual oral hygiene. To increase the functional resistance of enamel, applications of dental cream "Tooth Mousse" (GC, Japan) are used. In the morning, after brushing the teeth, a portion of the above mentioned cream is applied to the teeth of the upper and lower jaw with a cotton swab or a dry, clean finger and distributed over all the teeth. Keep the cream in the mouth for 2-3 minutes, then spit it out. The mouth cavity is not rinsed. It is recommended to refrain from eating and drinking for 2 hours. In addition, to regulate the metabolism of calcium and phosphorus, the dietary supplement "Rotavit Calcium" (Slavia Pharm S.R.L., Romania) is prescribed, 1 sachet per day during meals. Before using it is necessary to dissolve the contents of the sachet in a glass (200 ml) of drinking water. The probiotic "Bactoblis" (Bluestone-Pharma, Switzerland) is recommended for 1 tablet per day, preferably in the evening before going to bed, after brushing the teeth. For individual oral hygiene, BIOMED CALCIMAX toothpaste (STS HOLDING GROUP LTD, Bulgaria) and "Biorepair" rinse (Coswell S.P.A., Italy) are used 2 times a day, in the morning and in the evening. The duration of the course is 1 month, which is repeated twice a year [3].

The use of the proposed means is due to their ability to influence various stages of the pathogenesis of permanent teeth caries in children with type 1 diabetes mellitus who live in regions with high fluoride content in drinking water. Dental cream "Tooth Mousse" (GC,

Japan) contains CPP-ACP (casein phosphopeptide - amorphous calcium phosphate) and is produced from milk proteins. In the oral cavity, CPP-ACP molecules bind to enamel hydroxyapatite crystals, forming bioavailable calcium phosphate.

"Rotavit Calcium" (Slavia Pharm S.R.L., Romania) is recommended as a dietary supplement, as an additional source of calcium (calcium carbonate) and vitamin D3 (cholecalciferol), to regulate the exchange of calcium and phosphorus in the body. It promotes bone formation and mineralization tooth enamel, normal functioning of the nervous and muscular systems.

"Baktoblis" (Bluestone-Pharma, Switzerland) contains a specific strain of *Streptococcus Salivarius* BLIS K12, which is one of the most well-known probiotics for oral health. It was established that the K12 strain of *Streptococcus Salivarius* secretes antimicrobial molecules BLIS (bacteriocin-like inhibitory substances). BLIS K12 is an oral probiotic that first displaces pathogenic bacteria, and then releases 2 antimicrobial proteins Salivaricins A and B. They limit the growth of numerous types of pathogenic bacteria and maintain the level of beneficial bacteria in the oral cavity for a long time.

BIOMED CALCIMAX toothpaste (STS HOLDING GROUP LTD, Bulgaria) contains calcium hydroxyapatite and L-Arginine, which strengthen and restore tooth enamel, reducing tooth sensitivity. The complex of deep-sea algae and pink clay provides anti-inflammatory properties and stimulates the blood circulation of the gums. Natural antiseptics - plantain juice and polyphenols, have an antibacterial and anti-inflammatory effect. Contains vitamins E, K, PP, carotene. Thyme essential oil prevents fatigue, and its aroma adds strength. It does not contain fluorine, chlorhexidine, triclosan and other strong antiseptics, SLS / SLES, parabens, aggressive bleaching and abrasive components, synthetic dyes and flavours, synthetic preservatives, gluten, saccharin, ethoxylated products, petroleum products.

Rinse "Biorepair" (Coswell S.P.A., Italy) contains bioactive nano-hydroxyapatite in the patented formula MicroRepair (liquid enamel), which effectively restores the damaged structure of enamel and dentin, penetrating hard-to-reach places. It remineralizes tooth enamel, protects against caries. The composition of the rinse is safe because it does not contain alcohol, chlorhexidine, triclosan, titanium dioxide, fluorine and parabens.

The example of use. Patient S., 15 years old. Clinical diagnosis: type 1 diabetes mellitus, severe form, stage of sub compensation. He has been sick for 4 years. He is constantly on insulin therapy. During the preventive examination, it was established that the DMF index is 4. The Green-Vermillion index is 1.7, which is considered high and indicates unsatisfactory oral hygiene. TER (Okushko V.R., Kosareva L.I., 1983) is equal to 7 points, which indicates a decrease in the structural and functional resistance of enamel and a high degree of

risk of caries. The patient was prescribed our preventive complex, which includes: professional teeth cleaning and training in the rules of oral hygiene; applications of dental cream "Tooth Mousse" (GC, Japan); dietary supplement "Rotavit Calcium" (Slavia Pharm S.R.L., Romania); absorption of "Bactoblis" tablets in the oral cavity; brushing teeth with BIOMED CALCIMAX toothpaste (STS HOLDING GROUP LTD, Bulgaria) and using "Biorepair" rinse (Coswell S.P.A., Italy). The duration of the course is 1 month, it should be repeated twice a year.

One year later, after 2 courses of the preventive complex in this patient, the intensity of the carious process did not increase according to the DMF index. The Green-Vermillion index decreased to 0.6, which indicates a good hygienic condition of the oral cavity. TER was 3 points, which indicates high resistance of teeth to caries.

Conclusions. The proposed method reflects the clinical effectiveness of caries prevention, which is confirmed by the stability of the caries process indices, the improvement of the state of oral hygiene, the increase of the structural and functional resistance of enamel and the resistance of teeth to caries. That is why it can be recommended for optimizing the prevention of caries of permanent teeth in children with type 1 diabetes mellitus who lives in regions with high fluoride content in drinking water.

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ОСОБЛИВОСТІ УРАЖЕННЯ ТКАНИН ПАРОДОНТУ У ШКОЛЯРІВ, ЯКІ ПРОЖИВАЮТЬ В УМОВАХ ВПЛИВУ ДІЇ НЕСПРИЯТЛИВИХ ЧИННИКІВ НАВКОЛИШНЬОГО СЕРЕДОВИЩА

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**CHARACTERISTICS OF PERIODONTAL TISSUE DAMAGE IN
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