Indicators and Treatment of Dental Caries in Children with Disabilities

Xolova N. F., Xabibova N. N.

Bukhara State Medical Institute

Relevance. The problem of increasing the effectiveness of determining the purpose of dental caries in children with cerebral palsy and improving treatment methods is currently considered as of great importance in maintaining the health of the younger generation, as well as in profiling diseases [2,4,6,8]. Dental diseases are among the most common diseases among other diseases, and caries and its complications occupy a leading place in children with cerebral palsy. Cerebral palsy in children is detected in about 1000 people out of 3-5 babies born. According to the results of dental examinations, the prevalence of dental caries and its complications in children with cerebral palsy ranges from 80% to 85% [1,3,5,7,9]. Therefore, the main attention in the world is paid to the development of new highly effective methods for the prevention of childhood caries. According to the World Health Organization (WHO), the number of severe complications caused by the disease of 3-4 teeth in three-year-olds increases on average. Severe and complex complication of caries is caused by the development of acute and chronic odontogenic inflammatory process in temporary teeth. In the world, there are many endogenous and exogenous methods for the prevention of dental caries, on the basis of their application, the newly emerging carious disease was reduced to 30-40% [10,11,13,16]. The organization of an effective system of caries profiling in children is one of the urgent problems facing the employees of the field.

A number of scientific studies are being conducted around the world aimed at developing a clinical framework that profiles the early diagnosis and treatment of dental caries in children. In this regard, it is necessary to formulate a comparative basis of dental diseases in children of different age groups, as well as dental caries, as well as medical and social aspects of the course, diagnosis, treatment and prevention of dental caries in schoolchildren [12,14,15].

Purpose of the study. It consists in improving the effectiveness of dental caries Komplex prophylaxis and treatment in children with cerebral palsy.

Objectives of the study: to study the prevalence of dental disease and dental caries in children with cerebral palsy;
determination of some biochemical parameters of oral fluid in the diagnosis, treatment and prevention of dental caries in children with cerebral palsy;
evaluation of physical and chemical parameters of oral fluid in children with cerebral palsy;
analysis and development of a profile algorithm for early diagnosis, treatment and prevention of dental caries in children with cerebral palsy;
it consists in studying the clinical effectiveness of the drugs Kalmazin and Roks in the treatment of dental diseases and dental caries in children with cerebral palsy.

Methods of the study.

As a result of poor oral hygiene in children with cerebral palsy, an environment is created for the development of various dental diseases in the oral cavity. Dental pelicle (biofilm) is a polymorphic formation. Carisogen factors can be different in intensity and nature, different in their interaction contribute to the occurrence of caries, but the leading factor is the microflora of
the oral cavity. It can develop both in the oral cavity of microorganisms, in the presence of an excessive amount of carbohydrates in food, and in contact with the enamel of teeth of carbohydrates and microorganisms. The consumption of carbohydrates leads to the formation of acid. When the pH level of the liquid in the oral cavity is below 6.2, the saliva from a large amount of hydroxyapatite becomes unsaturated, so it turns from mineralized to demineralized liquid (destruction of hard dental tissue). The formation of organic acids is associated with the long-term enzymatic activity of microorganisms. Prolonged exposure to organic acids on the tissues is observed with poor oral hygiene, plaque forms on the enamel. The acidic environment under it develops as a result of the enzymatic activity of a large number of microorganisms that can well absorb carbohydrates that enter the oral cavity. Thus, the body cavity is formed under the plaque, which is acidic compared to pH 5.5, where it produces dense acid. With good rinsing of the mouth and teeth, low sugar intake, local changes in pH are quickly affected. But where access to saliva is restricted by frequent consumption of sugary foods, the process of demineralization may prevail over the process of remineralization. This means that the intake of carbohydrates can be a decisive factor in changing the pH and disrupting the mineralization processes, which leads to caries.

The direct cause of the progressive demineralization of the hard tissues of the tooth (caries) is organic acids, the formation of which is associated with the long-term enzymatic activity of microorganisms. The occurrence of caries is the final stage of the interaction of a number of carious factors. In epidemiological studies, with the development of a large number of plaques and caries in children, it was found that they are elevated, interrelated. The nature and state of the oral microflora is determined by the main properties and composition of saliva: the presence of stagnant and non-stagnant flora, viscosity, PH, ionic potential, mineral components, organic composition (amino acids, polysaccharides, vitamins, purines, pyrimidines).

At the same time, the author provides information about the effectiveness of the proposed scheme of clinical examination of children with CP. Thus, the problem of optimizing dental care for children suffering from cerebral palsy is one of the important tasks of pediatric dentistry.

To determine the general dental status of children with cerebral palsy

The results of studies to determine the dental status of children undergoing various age categories of examinations with cerebral palsy showed that the jaws develop correctly in 26 children (22.8%). According to age categories, this pathology was divided into the following. The total number of children diagnosed with cerebral palsy is 317, including children with dental diseases and caries-114 etdi. All our dental examinations were divided into 34 (29.8%) sick children, 59 hyperkinetic (51.7%) sick children, atonic – aesthetic 21 (18.5%) children in the hemiparesis groups, and sick children who underwent dental examinations and received treatment. As a control group, patients with oral caries aged 6-18 years were selected, 40 children who were not diagnosed with cerebral palsy took part in the study. In the remaining children, the jaws were poorly developed in the controlled children (n = 88, 77.2%), and no pathological abnormalities were observed during the examination.

A total of 20 children (17.5%) who underwent the examination were found to have an incorrect tooth, usually it was noted in children from 6 to 10 years - in 16 cases (47%). In all other cases, their toothache was correct in 53% of cases (n=18).

In subsequent places, the number of identified nosological units was such as stomatitis (24.5%, n=28), oral candidiasis (0.6%, n=8). In addition, we combined other injuries that we encountered in exceptional cases into a separate group – "others" (0.8%, n=10). It should be noted that only in 12 children (10.5%) who underwent the examination, we found no signs of damage to the oral mucosa. When assessing the dental condition of children with cerebral palsy, which was studied, the general condition of the teeth, caries lesions of the teeth of children who were examined, and their intensity indicators were used and applied to assess.

The general condition of the children's teeth was evaluated according to the scale proposed by
"good condition" - in the presence of pathological changes visible during the examination of the teeth and no signs of damage, when the functions of the teeth are fully preserved;

"satisfactory condition" - cases before the appearance of visible pathology, when there are imperceptible signs of tooth damage, when the tooth function is fully preserved;

"unsatisfactory condition" - in the presence of visible pathological conditions, pronounced symptoms of tooth damage, partial preservation of tooth functions.

Thus, with increasing age in children with cerebral palsy was found that temporal change of teeth to permanent occurred in full accordance with the physiology of the youngest children tested, but with the younger growth of children dental health gradually deteriorated. The increase in the "satisfactory" and "unsatisfactory" condition of the teeth was due to a decrease in the number and percentage of teeth in "good condition" in children. It is recommended to use such norms established by the legislation when planning the financing of medical and preventive measures, allocating a full-time staff of dentists to school internships, and using children from this contingent for medical examinations.

In addition, health care organizers and dental specialists should take into account that the study was conducted in an area with a low frequency of dental diseases in children with cerebral palsy.

**Conclusions.**

When studying the biochemical parameters of the oral fluid content in children with cerebral palsy, there is an increase in the amount of magnesium (1.33 ± 0.39 mmol/L), an increase in TBA - active products (0.42 ± 0.20 mmol/L), a decrease in the amount of magnesium(1.94±0.63 mmol/L) and protein(1.18±0.54 g/l) in contrast to 0.17 ± 0.20 mmol/L), calcium (2.23±0.41 mmol/L) and protein (1.73±0.67 G/L), appropriate(p <0.05). The phosphorus values in both groups were within the standard values (5.27 ± 1.52 and 4.62 ± 1.96 mmol / L). When studying the physical and chemical properties of oral fluid in children with cerebral palsy, an increase in kinematic viscosity (1.26 ± 0.49), a decrease in the cleavage of oral fluid (0.27 ± 0.05 ml/ min) and a decrease in pH of oral fluid (6.47 ± 0.38) were observed. In the comparison group, the indicators of kinematic viscosity (1.02 ± 0.10), oral fluid velocity (0.39 ± 0.06 ml/min) and pH of oral fluid (7.05 ± 0.14) (P <0.05) were normalized.

**REFERENCES.**


7. Khabibova, N. N. (2021). Examination of patients with different forms RFL MMOC Sobirov Sh. S.


