Treatment of Wedge-Shaped Dental Defects with the Combined Use of Hydroxyapatite and Fluoride-Containing Drugs and Measures for their Prevention in Undergrowth

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The relevance of the topic. The structure of wedge-shaped dental defects is getting younger every year. Today, a wedge-shaped tooth defect occurs at the age of 20 years, and sometimes in adolescents. Previously, it was believed that this is a pathology of people over forty years old [2.4.6.8].

Local (exogenous) and general (endogenous) factors affect the occurrence of wedge-shaped dental defects. The intake of acid-containing products and medicines, the use of abrasive toothpastes and hard toothbrushes or their irrational use are local factors. Common factors include somatic pathologies, mainly endocrine diseases [1.3.5.7].

There are also a number of predisposing factors and possible causes of the development of wedge-shaped dental defects, such as local violation of oral hygiene, pathology of periodontal disease, concomitant dental diseases, etc [9.10.11.12].

The current methods of prevention and treatment of wedge-shaped dental defects are symptomatic and pathogenetic in nature, aimed at increasing mineralization and strengthening the hard tissues of the teeth, as well as at removing the phenomena of sensitivity in this disease. All this indicates the need for additional research to improve the methods of prevention and treatment of wedge-shaped dental defects. For the most part, the mineral part of the hard tissues of human and animal teeth consists of apatites, and the similarity of hydroxyapatite used recently with the hard tissues of teeth is undeniable. On this basis, the use of hydroxyapatite-containing preparations for the prevention and treatment of wedge-shaped dental defects can be considered theoretically justified [13.14.15].

From the above data, it can be considered justified to use the combined use of fluoro- and hydroxyapatite-containing drugs for the prevention and treatment of wedge-shaped dental defects.

The purpose of the study is the effectiveness of prevention and complex treatment of wedge-shaped dental defects by the combined use of hydroxyapatite and fluoride-containing drugs.

Research objectives:
1. To determine the prevalence and causes of wedge-shaped dental defects in young people.
2. To evaluate the processes of de - and remineralization in patients with wedge-shaped dental defects on the basis of test indicators and indices showing the state of hard dental tissues.
3. To develop effective methods for the prevention and treatment of wedge-shaped dental defects based on the combined effect of hydroxyapatite and fluoride - containing drugs on the hard tissues of the teeth.

Research materials: Adolescents with the disease of wedge-shaped dental defects will be examined.

Research methods:
- Clinical and dental research methods
Static research methods

There is a wider range of measures for pathogenetically justified increase in the resistance of tooth tissues to the action of cariesogenic factors. These include general and local fluoridation and exposure to other remineralizing agents, as well as biologically active substances. At the current level of development of dental care for children, prevention is impossible without planning, without managing the development of health.

Planning of preventive measures is possible at the national, group and individual levels. Examples of national preventive measures are: - fluoridation of drinking water in areas with a low content of fluoride in drinking water; - production of therapeutic and preventive oral care products; - inclusion of issues of hygienic education aimed at improving the sanitary and medical literacy of the younger generation in the programs of raising children at school, as well as a number of measures aimed at protecting the health of mothers and children; - improving the work and life of the population, creating various children's institutions, including specialized ones (for children with congenital pathology of the face and maxillofacial region). National prevention is planned on the basis of WHO recommendations, data from the CSO and scientific studies of the main dental institutions and scientific councils of the AMN, summarizing data on the population level for the country as a whole. As group measures, the following can be used: - teaching children of various ages hygienic dental care (in kindergartens, schools, etc.); - introduction of exercises in respiratory gymnastics to the cycle of physical culture classes in preschool institutions and at school, for the formation of correct posture and head position; - appointment of endogenous caries prevention products in the form of dietary supplements, calcium preparations, fluoride, fluoride-containing tablets, etc. Medical personnel participating in the program for the prevention of dental diseases: - the main link leading preventive work in dentistry should be hygienists, secondary medical personnel; - the organizations of the dental service and dentists are assigned organizational, supervisory, advisory, managing functions; - it is necessary to train secondary medical personnel focused on preventive work. The functional responsibilities of the heads of the dental service on the problems of prevention in dentistry include: - organization of prevention of major dental diseases in the region, service area; 8-organization of training, selection and placement of personnel for prevention; - organization and implementation of new effective forms of preventive dental care for the population; - organization of control, accounting, reporting of dental institutions for prevention; - solving problems of prevention of dental diseases together with the governing bodies, the administration of institutions. Heads of dental departments for the prevention of dental diseases have the following functional responsibilities: - organization of preventive work in the dental department and at the sites, including during clinical admission; - organization and conduct of training of doctors and secondary medical workers in preventive work in the service area; - organization of workplaces for the prevention of dental diseases in children's institutions, etc. - monitoring, accounting and reporting of the work of dentists for the prevention of dental diseases; - organization of rational forms and technologies of preventive care in the department and at workplaces, placement of personnel; - organization and implementation of advanced methods of preventive care in departments and precincts.

The effectiveness of the use of hydroxyapatite - and fluoride-containing drugs during the complex remineralizing therapy of wedge-shaped dental defects will be proved.

A new method of remineralizing therapy and prevention of wedge-shaped dental defects will be developed using hydroxyapatite-containing preparations in the form of therapeutic pads and fluoride-containing preparations by electrophoresis, deep fluoridation and as part of toothpastes used in the practice of dentists in the treatment of this pathology.

The functions of a dentist for preventive work include: - organization and, if necessary, carrying out all types of preventive dental care at the workplace and institutions; - knowledge of the following types of work: determination of CPU, CPU, CP, CPP, GI, PMA, training in oral
hygiene, the ability to control the effectiveness of hygiene measures, select toothpastes, brushes, rinses, fluoro-varnish, as well as means that affect the resistance and mineral metabolism of the body, use active and passive forms of san-lumen. works; - training of secondary medical personnel in prevention, monitoring their work; - accounting and reporting of preventive work. The functional responsibilities of the secondary medical staff include: training in oral hygiene, monitoring oral hygiene, selecting a toothbrush, conducting conversations, speeches, compiling leaflets, conducting preventive procedures (applying fluorides, gels, rinsing with solutions of fluoride preparations). The functional duties of the secondary medical staff of a non-stomatological profile (a kindergarten nurse, a school nurse) consist in teaching oral hygiene, monitoring its effectiveness, conducting interviews, preventive procedures. Training of heads of the dental service, heads of departments and dentists on the prevention of dental diseases is carried out at the central and local bases. It is advisable to provide primary training of dentists by conducting seminars, training courses at the workplace with the participation of employees of the departments of the Faculty of Dentistry. Secondary medical personnel can be trained both collectively and individually on the basis of institutions where there is experience of such work.

The heads of non-stomatological health authorities should know the goals and objectives of prevention in dentistry, its organizational aspects to provide support and assistance in their implementation. Individual prevention differs not in methods and means, but in the individual choice of these means and methods, as well as the individual frequency of their use in accordance with the level of health or the nature of risk factors. When conducting secondary prevention, an individual choice of methods, means and the frequency of preventive measures is carried out in accordance with the activity of the course of the pathological process. Planning of individual prevention is more possible at the level of the district doctor responsible for the health of children at the preschool school site. The creation of prevention programs and their implementation should be based on the data of epidemiological studies, the state of dental care for children, human resources when using the principles of targeted planning, etc. From the perspective of national planning, the tasks of epidemiological research are to determine the prevalence and severity of diseases or their combination in the population of the region or the country as a whole.

**Conclusion.** For example, the generalization of the experience of fluoridation of drinking water in various countries has shown that this measure of caries prevention is appropriate only for areas with high or very high intensity of damage. In areas with a low intensity of caries, its prevention is not a task of national importance. Preventive measures are planned for other diseases, for example, periodontal diseases, which are the most intensive for this region (according to epidemiological studies). To develop prevention programs for group exposure, epidemiological studies should be conducted in more depth, taking into account the age-related features of the development of pathology.

**LIST OF LITERATURE**


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