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## **PREVENTION OF DENTAL CARIES IN CHILDREN**

**Abstract:** Early prevention of dental caries in children plays an important role in maintaining dental health. The article substantiates the need for early prevention of dental caries in children. The most effective methods of preventing the development of caries include the beginning of hygienic care and compliance with the dentist's recommendations from the moment the first teeth erupt. It is shown that the use of remineralizing therapy is very effective in the treatment of initial forms of caries.

**Keywords:** caries prevention, remineralizing therapy, chalky stain.

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### **INTRODUCTION**

According to recent studies, there is a tendency for the prevalence and intensity of dental caries in children to increase [1]. It is alarming that the incidence of caries in young children (1 to 3 years old) has increased significantly (2.5-3 times). The prevalence of caries by the age of 4 in different regions ranges from 20 to 80%. [1, 2]. According to a number of authors, this is largely due to the increased incidence of pregnancy pathology, genetic predisposition to caries, and worsening environmental conditions, which results in a decrease in the overall resistance of the child's body [2, 3].

### **MATERIALS AND METHODS**

The period of physiological maturation (mineralization) of enamel can take from 2 to 5 years, and throughout the entire period of mineral maturation (especially during the first year after eruption), the child's teeth need careful and effective care. In early childhood caries, temporary teeth are affected almost immediately after their eruption. The first carious lesions are usually found on the vestibular surface of the upper incisors in the cervical region in the form of chalky areas (focal demineralization). These foci very quickly (in 2-3 months) acquire a light yellow color, then carious defects appear at this site. The carious process is characterized by rapid progression, spread in width (flat caries), multiple lesions of teeth in the order of their eruption (except for the lower incisors). The rare lesion of the lower incisors in this pathology is explained by better self-cleaning capabilities (due to the position of the tongue) and abundant washing with saliva [3]. In a study conducted with the participation of 35 children aged 1 to 3 years, we treated caries at the chalky spot stage using the gel "R.o.c.S. Medical Minerals". A clinical examination of the oral cavity was carried out according to a standard scheme with filling out an individual card, determining the value of the index kpuz, kpup. The intensity of demineralization in caries was assessed by staining chalky spots with a 2% solution of methylene blue on a 10-point Aksamit scale. To assess the hygienic state of the oral cavity, an index for assessing dental plaque in young children was used [4]. In addition, the presence or absence of catarrhal gingivitis was visually determined.

### **RESULTS AND DISCUSSION**

During the clinical examination of the patients' oral cavity one month after the prescribed complex of conservative treatment and preventive measures, we noted the absence of an increase

in new carious cavities and foci of demineralization; the existing chalky spots showed restoration of shine, and a positive symptom of probe sliding was observed.

Before the study, chalky spots were stained dark blue when stained with a 2% solution of methylene blue (from 6 to 9 points); after a month of preventive measures, chalky spots remained, but no staining occurred (0 points).

Among other positive changes, it should be noted the disappearance of signs of catarrhal gingivitis and a satisfactory hygienic condition of the oral cavity in all patients.

As a result of the treatment, restoration of the enamel structure of temporary teeth was noted in all examined children. Thus, the use of the remineralizing gel “R.o.c.S. Medical Minerals» for the treatment of caries in the chalky spot stage of primary teeth is an effective and safe method. As a result of using the gel, the enamel is saturated with calcium, which promotes remineralization of teeth and increases their resistance to cariogenic factors. In addition, the key to successful treatment of caries in the chalky spot stage is strict oral hygiene. The study demonstrated a high level of effectiveness of the proposed method and was highly appreciated by the parents of our patients. Increasing the level of awareness of parents about new methods of treatment and prevention of dental caries in children can contribute to an increase in the level of timely diagnosis of dental diseases in young children.

When diagnosing the initial stage of caries of temporary teeth - chalky spots - the doctor prescribes treatment. This stage of the carious process is characterized by demineralization of enamel without violating the integrity of the organic matrix of enamel. In such a situation, the process is reversible, since the enamel of children's teeth has a high capacity for remineralization, i.e. for the restoration of its own structure due to the penetration of necessary macro- and microelements from the outside [3].

## **CONCLUSION**

A visit to any doctor for a small child is associated with a certain amount of stress, and dental treatment is accompanied by instrumental and X-ray examination, the use of local anesthesia and a drill. All these activities frighten small patients and sometimes leave negative memories for life.

Prevention of dental caries in children is the key to dental health for life. Competent use of special children's oral hygiene products will help to form a child's motivation to brush their teeth from the first years of life. Playing with a bright and beautiful toothbrush, using tasty and safe toothpaste at an early age will turn into a stable healthy habit of monitoring the cleanliness and health of teeth.

The combination of remineralizing and antimicrobial action in the application gel "R.o.c.S. Medical Minerals" allows you to reduce the number of visits to the dentist in the treatment regimen we offer, which significantly facilitates its implementation in young children. Preserving healthy temporary teeth until physiological change will help avoid many problems with permanent teeth in the future.

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