

Intensity Prevalence and Hygienic State of the Oral Cavity in Preschool Children Living in the Southern Regions of the Republic of Uzbekistan

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Abstract

Early childhood caries was and remains one of the most pressing and acute problems of modern dentistry. The increasing intensity and prevalence of early childhood caries in young children is an increasing medical, social and economic problem [6,9]. Caries prevention includes a whole range of measures. The use of special therapeutic and prophylactic agents as a necessary element of maintaining rational individual hygiene is a prerequisite in the complex of these measures [11,12]. This, in turn, contributes to a significant reduction in the incidence of dental caries [4,10]. Prevention of dental caries includes a whole range of measures aimed at its prevention. A necessary condition in the complex of these measures is a rational individual oral hygiene, which includes the use of special therapeutic and prophylactic agents [10]. Properly organized high-quality oral hygiene can significantly reduce the incidence of dental caries [4,10].

Index terms—

1 Introduction

According to the latest developments of the world's leading dentists, training in rational oral hygiene and teeth cleaning should be carried out in stages, starting from the age of 3. Parents should be involved in this work, since at this age child are too young to understand the need for oral care. It has been established that it is precisely the skills acquired at this age that become especially strong, assimilated for the whole life [1,2,5]. In addition, at this age, the foundations of personality formation are laid. The recommended stages of teaching a child to rationalize cleaning of teeth, gums and tongue are explained by the fact that up to 3 years of age, carious cavities are more often formed in places of the enamel that is viciously developed in the antenatal period: on the labial and chewing surfaces of the tooth, and from 4 years old, if the child does not learned to brush his teeth, remove food from the interdental spaces, then carious cavities appear on the lateral surfaces of the teeth, which are poorly formed and poorly hold fillings. Therefore, prevention of caries prevention of this localization should be started before 4 years [7,8].

2 a) Purpose of the research

The aim of the research is to study the intensity, prevalence and hygienic state of the oral cavity in preschool children living in the southern regions of the Republic of Uzbekistan.

3 II.

4 Materials and Methods

For the study, we examined 280 children aged 3 to 6 years. Attending preschool educational institutions of Kashkadarya and Surkhandarya regions. Preschool children from various districts of the Kashkadarya region (240 children, 129 boys and 111 girls) were included in the main group; children (40 children; 23 boys and 17 girls) of the Mountain region of the Boysun district of the Surkhandarya region were involved as a control group, this region, according to ecologists is the most ecologically favorable southern region of the republic.

During the examination period, all children were practically healthy and were not registered under observation of related specialists. Children were examined using a standard set of dental instruments in natural light. All data were entered in a special questionnaire card, with the help of preschool educators, parents were questioned to obtain complete information about the child. During the examination, the generally accepted sequence was followed: external examination, assessment of the location of the teeth, dentition, assessment of oral hygiene, study of dental hard tissues.

Hygienic history: when, how many times a day, what and how the child brushes his teeth. As a result of the conducted examinations of children, it was found that all children needed special individual training in hygienic skills and careful, regular quality control of hygienic oral care. The intensity of caries was determined by the average value of the indices CPR + cfc of the teeth of the cavities (T.F. Vinogradova, 1988). To assess the hygienic state of the oral cavity, the hygiene index was determined by the method of Yu.A. Fedorov and V.V. Volodkina. (1972). To assess the severity of gingivitis (and subsequently to register the dynamics of the process), the papillary-marginalalveolar index (PMA) was used.

Statistical research methods included methods of variation statistics (determination of the arithmetic mean value -M, and their mean standard error -m, Student's significance criterion -t). The data were processed using the Statistica software package. The prevalence of caries is not significantly different in both areas. However, the intensity index in the main group was 2 times higher than in the control group ($R < 0.001$). In comparative characteristics, it was shown that the hygienic state according to the Fedorov-Volodkina index, the oral cavity of children and the values of the PMA index were also higher in relation to the control group. In children of the main group, the average value of the Hygiene Index (HI) was 2.29, which corresponded to an unsatisfactory state, in children of the control group, the index value was 1.75, which corresponded to satisfactory.

To find out the hygiene habits of preschoolers living in the southern regions, a survey was conducted on the study of dental hygiene, during which the questionnaires were distributed to parents of children of the younger age group and filled out by questioning older children. Based on the questionnaire survey, it was found that the children of the control group did not brush their teeth twice a day, most of them brushed their teeth once a day and 2-3 times a week. Fortunately, there were no children in this group who did not wash at all. In the main group, children who wash twice a day make up 10%, those who wash once -43%, those who wash 2-3 times a week -25%, and children who do not wash at all -about 3%. Thus, the results obtained in the mode of the present study test the significant role of hygienic health status based on dental diseases. These data require further in-depth study of causal relationships in the occurrence of major dental diseases in this contingent of children.

III.

5 Conclusions

1. The prevalence and intensity of dental caries in children of the main group is 2 times ($R < 0.001$) higher than in the comparison group 2. The index of oral hygiene in children of the main group was 2.29 ± 0.05 and was significantly higher in relation to the control and corresponded to unsatisfactory. 3. On the basis of questionnaires, they indicate a low level of hygiene skills among children living in the southern regions, only 10% of children regularly brush their teeth and 3% of children do not brush their teeth at all. 4. Comprehensive dental prophylaxis in this contingent of children should be carried out with the inclusion of measures aimed at increasing the hygienic knowledge of parents and improving the hygienic state of the oral cavity in preschool children.



Figure 1: Figure 1 :

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Figure 2: Figure 2 :

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Index	Control (n=40)	Maingroup (n=240)	R
CPR + cf (cf)	2,4+0,3	4,84+0,19	<0,001
PMA	15,04+1,01	19,08+0,67	<0,001
HI	1,75+0,1	2,29+0,05	<0,001
Prevalenceofdentalcaries	85%	90,6%	

Figure 3: Table 1 :

.1 Conflict of Interests and Contribution of Authors

The authors declare the absence of obvious and potential conflicts of interest related to the publication of this article and report on the contribution of each author.

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