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**Тhe state of parodont tissues’ diseases in children of Transcarpathian region.**

**Resume**: the investigation of the dental status of Uzhhorod children and inhabitants of two regions of Transcarpathian has been conducted. The result of the investigation have demonstrated that in comparison with the regional center the intensity of inflammation diseases of parodont is on the highest level.

**Keywords**: parodont, prevalence, intensity, dental morbidity.

**Introduction.** Paradont diseases represent actual problem, which brings not only medical but also social value [1,2]. This is primarily due to the prevalence and intensity of the disease in all age groups of our population. [3]

Investigation of the stomatological morbidity structure of the population from different regions of Ukraine indicate a high prevalence of inflammatory periodontal diseases, which varies significantly depending on the age of the patients [4,5,6].

Periodontal disease among younger age group (5-6 years) range from 4,2-92,1%. The research has shown that signs of periodontal inflammation have already been in first grade pupils. Average frequencies of gingivitis in 7 years old children range from 14,3 to 27,4%. Prevalence of periodontal defeat in older people is 100% [6]. At the elder age, periodontal disease is the cause of tooth loss, causing a variety of changes in the temporomandibular joint, disfunctions of chewing and speech.

Periodontal disease has a higher prevalence in older age groups (15, 35-44, 65 and older) than in younger (5-6 years old, 12 years) [7,8 ]. This fact can be observed as the result of cumulative damage which is brought to tissues throughout life, not just as a cause of age-related manifestations of periodontal diseases due to aging. Also, many of the complications associated with periodontal disease are more common and more severe in the middle age.

Assessment of the risk and the subsequent development of periodontal diseases in patients can and should significantly influence the correct assessment of the periodontal tissues, diagnosis of disease, treatment choices for the future, a plan of treatment, management of the patient and further monitoring of the disease [9,10].

**The aim of research.** To explore by methodological recommendations of WHO, the incidence of periodontal tissues in the child population in the Transcarpathian region in the researched age groups.

**The materials and methods of research.** According to the WHO’s recommendations for the study of dental disease, during the epidemiological survey, sample of people examined in one area must be not less than 20 people (age groups: children 5-6 years old, 12 years old, adolescents 15 years, adults 35-44 and 65-74 years).

The object of the study were 382 children from Uzhhorod and two regions of Transcarpathia (Perechyn, V.Bereznyanskyy districts) aged 6 to 15 years. Out of them 6 years old children, 123 ( 32,2%), adolescents '12 -128 (33,5 %) and 15 years old -131 (34,3 %). There had to be 125-130 people in each age group. The investigation was performed at school’s dental studies. During the research the prevalence and intensity of inflammatory periodontal diseases and oral hygiene status had been investigated.

The evaluation of the given results was carried out in three age groups: children 6, 12, teenagers 15 years. In order to evaluate the prevalence and intensity of inflammatory periodontal diseases was used an index - CPITN, proposed by WHO to unify methodological approach to the study of the prevalence and intensity of periodontal diseases. Hygienic oral health was assessed in 6 years old children using an index of Fedorova-Volodkinoy, and in 12 and 15 years old teenagers - Green-Vermillion’s index.

Statistical analysis of the data was performed on a PC using the «Microsoft Excel» and «Statistica 6.0» on the basis of averages and their errors, Student's test. The difference was considered credible at P <0.05.

**Results and discussion.** The results of hygienic health of mouth cavity in examined children are presented in Table 1

Table 1. The results of hygienic health of mouth cavity in examined children of Transcarpathian region

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Surveyed areas  n | Age groups | | | |
| Index Fedorova-Volodkinoi | Іndex Green-Vermillionа | | |
| 6 years | 12 years | 15 years | Р < |
| Uzhgorod  (n=127)41+43+43 | 1,98 ± 0,03 | 1,85±0,02 | 1,19±0,02 | 0,05 |
| Perechyn  district (n=126)40+42+44 | 2,16 ± 0,02 | 2,28±0,02 | 1,22±0,02 | 0,05 |
| V. Bereznyanskyy  district (n=129)42+43+44 | 3,37 ± 0,02 | 2,88±0,02 | 2,07±0,03 | 0,05 |

The results showed that only the health of mouth cavity in Uzhgorod children can be described as satisfactory. However, 6 years old children from Perechyn and V.Bereznyanskyy districts have unsatisfactory level of mouth’s cavity hygiene, since the average value of hygiene index Fedorova- Volodkinoyi constituted 2,16-3,37 points (normal 1,1-1,5 points). On average in examined children from districts hygienic oral health was significantly worse than that of the city inhabitants. In all age groups except 6 years old children, oral hygiene was poor, as was indicated by the index – Green-Vermilion - more than 2 points ( at a rate of 0 - 0.6). Oral hygienic condition in 6 years old children was very bad. Mean hygiene index Fedorova-Volodkinoyi was more than 3 points.

The difference in the hygienic condition of the oral cavity in children from Uzhhorod and districts not only confirms the fact that they have poor sanitation knowledge, but also suggests that preventive work, which have been conducted among children is insufficient.

In assessing the prevalence of inflammatory periodontal diseases we determined the number of individuals with one or other signs of damage. There was the number of patients whose symptoms has not been determined. The intensity of the lesions of periodontal is determined by the number of healthy sextant and excluded.

In tab.2 (statistically significant p < 0.05) The prevalence and intensity of inflammatory periodontal diseases in examined children from Uzhgorod and districts are obtained. The analysis shows that in 6 years children signs of inflammation in periodontal tissues are absent from 78 % to 92%. This age group is the most healthy. In all other age groups, the percentage of persons with no signs of inflammation in periodontal tissues range from 6% to 24%. Table 2. Indicators of prevalence and intensity of inflammatory periodontal diseases in examined groups residents of the Transcarpathian region.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Examined  areas | Age groups  (years) | Prevalence (%) | | | | | Intensity | |
| Healthy | % of healthy people with signs of periodontal | | | |
| In the whole group | Bleeding | Plaque | Pocket of 3-5 mm | Number of healthy sextant | Number of excluded  sextant |
| Uzhgorod | 6 - 41  12-43  15-43 | 92  24  14 | 8  76  86 | 8  44  34 | 0  32  52 | 0  0  0 | 5,92  4,88  4,44 | 0  0  0 |
| Perechyn  district | 6-40  12-42  15-44 | 84  22  10 | 16  78  90 | 16  46  38 | 0  32  52 | 0  0  0 | 4,62  3,44  2,4 | 0  0  1,0 |
| V.Bereznyansyy District | 6 - 42  12-43  15-44 | 78  16  6 | 22  84  94 | 22  48  42 | 0  36  52 | 0  0  0 | 5,44  3,9 2,9 | 0  0  1,25 |

For teenagers '15 prevalence of symptoms such as bleeding gums and the presence of plaque, according to the WHO criteria, was low and middle respectively. Half of the examined adolescents '15 were found with dental plaque.

Thus, the study found that children from Uzhhorod has medium and high prevalence and intensity of inflammatory periodontal diseases, which increases with age.

A survey of two districts showed that comparatively with the regional center the prevalence and intensity of inflammatory periodontal diseases is higher (tab.2). Even in 6 years old children the prevalence of periodontal inflammation symptoms range from 8% to 22%. Adolescents '15 incidence of symptoms of bleeding gums by WHO criteria, assessed as medium, and high prevalence of tartar. More than half of examined teens '15 found dental plaque -52 %. Comparison of the data with similar regional center for children are in favor of the latter. This is also confirmed by the values ​​of intensity of inflammatory periodontal diseases. The number of healthy sextant in children from districts average is less than children of the city.

**Conclusions.** After some initial analysis of the data evaluation of the prevalence and intensity of inflammatory periodontal diseases we can conclude that the situation in districts is worse than in residents from regional center due to a number of factors, including lower hygiene knowledge of population, inadequate oral care, poor dental care that is provided, the distance from the districts of the city. There may also be other factors that perpetuate this situation.

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