

DENTAL STATUS IN CHILDREN WITH CHRONIC RENAL FAILURE IN HEMODIALYSIS*Chuikin Sergey Vasilievich**Department of Pediatric Dentistry and Orthodontics,
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Abstract. Chronic renal failure (CRF) is a severe somatic disease leading to disability. Especially difficult is CRF in childhood. In a growing organism, pronounced metabolic, immune processes, intoxication processes occur. The gradual loss of kidney function, a prolonged state of uremia is accompanied by the occurrence of changes in various organs and systems of the child's body, including the oral cavity. The purpose of this study was to study the dental status in children with chronic renal failure on hemodialysis. According to the results of the study, pathological changes in the oral cavity in patients with chronic renal failure undergoing hemodialysis were identified, which indicate the need for the development of corrective therapeutic and preventive measures in order to optimize the prevention and treatment of dental diseases.

Key words: chronic renal insufficiency, hemodialysis, stomatological status.

Introduction Chronic renal failure (CRF) is a severe somatic disease leading to disability. Especially difficult is CRF in childhood. In a growing organism, pronounced metabolic, immune processes, intoxication processes occur. A gradual loss of kidney function is accompanied by the occurrence of changes in various organs and systems of the body, including from the dentofacial system [1; 3; 7]. The high susceptibility to various dental diseases [2-9], the features of their clinical course depending on the functional state of the kidneys, the influence of pharmacokinetics and hemodialysis procedures were a prerequisite for studying the features of dental status in terminally ill children with chronic renal failure. O.A. Moskalenko [10-15] while studying the condition of the oral cavity in patients with chronic renal failure revealed a rather high prevalence of dental diseases in patients with this pathology - 96.6%. So, the prevalence of caries in patients with chronic renal failure was 92.4%, receiving hemodialysis - 91.2%; the intensity of caries in patients with chronic renal failure was higher than in healthy people, KPU = 5.40. The mucous membrane of the oral cavity and periodontal tissue are a sensitive reflexogenic zone. Therefore, violations of the sensory and reflex functions of the oral cavity can be expected under various pathological conditions of the body [16-19]. From them one can judge the severity of shifts in the neurodynamics of the centers that regulate the activity of the organs of the oral cavity, taste and salivation function. In patients with chronic renal failure, the physiological desquamation of the filiform papillae is inhibited, so the tongue is often dry, "overlaid" [5]. In connection with the release by the salivary glands of a large amount of urea, which under the influence of saliva enzymes passes into ammonia, halitosis is constantly observed. A frequent subjective symptom of a mucosal lesion is its burning, soreness. Possible occurrence of candidiasis of the oral cavity, the development of herpetic stomatitis. The cause of the appearance of viral and fungal infection, obviously, is a decrease in both general and local factors of nonspecific protection, as well as intoxication inherent in renal failure [1]. So, according to the literature, it follows that patients with chronic renal failure have quite significant changes in the oral cavity. The main

mechanism for the occurrence of these changes is the accumulation of nitrogenous products in the body, impaired mineral metabolism, and periodontal hemodynamics.

Objective. Study of dental status in children with chronic renal failure undergoing hemodialysis.

Materials and research methods. The work presents the results of a survey of 52 children with chronic renal failure in the terminal stage who are on outpatient programmed hemodialysis at the Center for hemodialysis and kidney transplantation of the Republican Children's Clinical Hospital in Ufa, aged 15–18 years, the main group 1; Group 2 consisted of 30 children with chronic renal failure in the compensation stage. The control group included 30 children of the same age without kidney disease and other chronic diseases. Hemodialysis was performed on an artificial kidney apparatus Fresenius 4008H, 5008S, 5008 with dialyzers F4-F7, FX40; FX60 under standard conditions using a bicarbonate solution. The dialysis program in patients was individual, taking into account the "dry weight", weight gain in the interdialysis period and other parameters, was 9 hours a week for 2 sessions. Kt / v was -1.3-2. Children were included in the study with the informed consent of each of them and their parents. The study conducted a study of dental status. To assess the dental status, the state of the oral mucosa and tongue was determined. To assess the condition of the teeth, indicators recommended by the WHO expert committee were used. Statistical data processing was performed using computer programs Microsoft Excel and the application package Biostat Primer for Windows McGraw-Hill.

Results and discussion. When examining the oral cavity in children with chronic renal failure treated with hemodialysis, we took into account the subjective sensations of children in the oral cavity. Children with chronic renal failure undergoing hemodialysis (group 1) in some cases complained of xerostomia: dry red border of the lips in $73.1 \pm 6.2\%$ of cases, in group 2 of children in $46.7 \pm 9.1\%$ of cases ($p < 0.05$, differences are not significant); gum bleeding in group 1 occurred in $30.8 \pm 6.4\%$ of cases, in group 2 in $23.3 \pm 7.7\%$ of cases ($p > 0.05$, differences were not significant), in the control group 6.7 ± 3 , 4% of cases ($p < 0.05$, the

differences are not significant), in the control group there were no complaints of a burning sensation in the oral cavity and an unpleasant taste in the mouth. Children with ESRD who are on hemodialysis noted increased tooth sensitivity from thermal and chemical stimuli. So, hyperesthesia in this group was noted by 23 children - $44.2 \pm 6.9\%$, in the 2nd group of children the frequency of dental hyperesthesia was $10.0 \pm 5.5\%$ ($p < 0.05$, the difference was not significant); language overlay in 1 group of children - in $78.8 \pm 5.7\%$ of cases, in 2 group of children - in $73.3 \pm 8.08\%$ of cases ($p > 0.05$, the difference is not significant), in the control group the phenomenon of hyperkeratosis, puffiness and tightness of the tongue were not observed. We have studied the prevalence and intensity of dental caries in children with chronic renal failure who are on hemodialysis treatment. The prevalence and intensity of caries in various groups of examined children are presented in table 1. When analyzing the data of the table, it can be seen that the prevalence of caries in children with chronic renal failure on hemodialysis was (group 1) $88.5 \pm 4.4\%$ of cases, in 2 group of children - 86.7 ± 6.4 ($p > 0.05$, the difference is not significant), in the control group the prevalence of caries was $83.3 \pm 6.8\%$ of cases ($p < 0.05$, the difference is not significant). The intensity of dental caries in children with chronic renal failure on hemodialysis was 4.21 ± 0.24 ; in the 2nd group of children it was 3.92 ± 0.1 ($p > 0.05$, the difference was not significant), in the control group - 3.4 ± 0.28 , the difference was significant ($p < 0.05$). Hygiene of the oral cavity was evaluated by the Green - Vermilion index. The average plaque in children with ESRD undergoing hemodialysis treatment was 2.2 ± 0.06 ; it was assessed as a poor level of hygiene; in the 2nd group of children - in 1.54 ± 0.06 ($p < 0.05$, the difference is not significant), the result in the control group was $56.7 \pm 9.1\%$ of cases ($p < 0.05$, the difference was significant), in the control group the indicator was 1.27 ± 0.02 ($p < 0.05$, the difference was significant).

Findings. High prevalence of dental diseases in children with chronic renal failure undergoing hemodialysis, frequent complaints of xerostomia of dry red border of the lips, oral mucosa, burning sensation in the mouth and unpleasant taste in the mouth were revealed. Changes in the oral cavity depend on the functional state of the kidneys, the effects of pharmacokinetics and the hemodialysis procedure. The results obtained in the study of the dental status in children with chronic renal failure undergoing hemodialysis can increase the effectiveness of the development of therapeutic and preventive measures in this group of patients and indicate the need for the development of therapeutic and preventive measures in order to increase the effectiveness of comprehensive prevention and treatment of dental diseases.

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THE RESULTS OF A SURVEY OF PARENTS ON THE PREVENTION OF DENTAL DISEASES IN CHILDREN WITH CONGENITAL CLEFT LIP AND PALATE

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Abstract. The article presents data from a survey of 160 parents of children with cleft lip and palate to assess the level of awareness of the prevention of dental diseases. An insufficient level of parents' awareness on the prevention of dental diseases in children with congenital cleft lip and palate has been established, which indicates the need to improve the work on health education and hygienic education.

Keywords: children, parents, questioning, cleft lip and palate, prevention.

Relevance. Currently, there is a tendency towards an increase in the birth rate of children with congenital malformations of the maxillofacial region. The most common and severe malformation of the maxillofacial region is congenital cleft of the upper lip and palate (VRGN) and accounts for up to 16.4% of the total number of all congenital malformations. [1-10] The birth rate of children with this defect in the Republic of Bashkortostan is 1: 554 newborns, in Ufa - 1: 454 (Chuykin S.V. et al., 2016). Along with the increase in the number of births of children with this pathology, an increase in somatic and dental morbidity is noted. The dental status of such children is also often burdened. Dental morbidity is caused by the presence of the main pathology, in which functions important for a person (functions of the articulatory apparatus, formation of respiration and correct speech) are impaired (Tsyplakova M.S. et al., 2016). [10-15] The lack of sustainable hygiene skills in preschool children reduces the effectiveness of preventive measures for dental caries and periodontal diseases (Kuzmina E.M. et al., 2015). Poor sanitary culture adversely affects the effectiveness of preventive measures (Hamadeeva A.M. et al., 2016). [16-19]

The goal is to evaluate the awareness of parents of children with congenital cleft lip and palate and their motivation for the prevention and treatment of dental diseases.

Materials and methods. We conducted a survey of 160 parents of children with preschool children with advances in primary care. The questionnaire used was developed at the Department of Pediatric Dentistry and Orthodontics with a course of IDPO FSBEI HE "Bashkir State Medical University" of the Ministry of Health of Russia. The questionnaire included 20 questions regarding the causes of the development of dental diseases, the frequency of brushing, the features of oral hygiene in children with ARH, the reasons for going to the dentist, and methods of prevention and treatment of dental diseases.

Results and conclusions. Oral hygiene is a basic method for the prevention of dental diseases. We appreciated the awareness of parents about how old a child should brush their teeth. Only 32 (20.0%) of the respondents answered that teeth should be brushed from the moment of teething. 60 (37.5%) - believe that teeth should be brushed from the age of 2, 45 (28.1%) - from 3 years of age, and 23 (14.4%) of the parents surveyed said that they should be brushed from 4 years and older.

The vast majority of parents - 150 (93.75%) indicated that their children use a children's toothbrush and toothpaste to care for the oral cavity, 10 (6.25%) answered that they use only a toothbrush. 82 (51.25%) of the respondents replied that oral care in children was carried out twice a day, 56 (35.0%) replied that once a