



Risk Factors for Tooth-Jaw Disorders in Children

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Relevance. The only reason for their development for the appearance of tooth anomaly and deformities cannot be Endo - or exogenous factors, which indicates the multifactorial basis of the disease. It is important to note that some of the identified risk factors are integrative in nature and are the result of a combination of many previous causes.

To date, no systematic and comprehensive analysis of the factors that increase the frequency of prevalence and likelihood of development of lip and palate birth defects has been carried out in ecologically unfavorable regions of the Republic. In children, problems with immunoregulation tactics in the pre-and postoperative periods have not yet found a solution. Studies on the tactics of adding immunoregulatory treatment for the purpose of preventive measures to prevent LTTN and their development resulting from the action of various teratogenic factors are not sufficient [8]. The current low level of dental health of children presupposes the need for early identification of risk factors for dental – jaw disorders in preschool children.

The reason for the increase in the spread of tooth - jawmalia and deformities in children is the presence of stable factors that contribute to the formation of pathology and maintain its stable level among the population. Up to 16 Real risk factors have been identified for the appearance of tooth - jawmalias and deformities. Only by eliminating the most important factors that affect the appearance of tooth - jaws and deformities can their spread be reduced. The formation of this pathology can be influenced by a large number of antenatal and postnatal risk factors.

The probability of the causative factor being affected, and in no case its implicit effect) is reflected in the now accepted very successful term "risk factor". The term does not indicate the absolute power of this cause, but only the possible effect that it receives a quantitative trait under certain conditions. This is determined by the frequency of events whose quantitative properties are repeated [1.3.5].

The causes of tooth - jaw disorders and deformities are different. According to management capabilities, all risk factors are divided into three groups: "controlled", "difficult to control", "uncontrollable". Most of the risk factors can be controlled, i.e. timely elimination or weakening of their effect prevents the formation of tooth – jaw disorders.

"Controlled" Risk Factors for the formation of tooth - jaw disorders and deformities include:

low fluoride content in drinking water;

decreased immunological reactivity of the body (frequent colds, rickets, etc.); early artificial feeding;

sleep, wake up and get up wrong at the table; the predominance of soft foods in the diet; impaired breathing, swallowing, chewing; irrational use of nipples - pacifiers;

bad habits (sucking fingers, things, tongue, lips, etc.). "Difficult to control" risk factors include chronic and acute maternal diseases during pregnancy;

toxicosis of pregnant women, threat of abortion, anemia, premature and postpartum birth; complications in childbirth;

factors such as asphyxia, malnutrition, hemolytic disease, allergic and Infectious Diseases of the child, etc. "uncontrollable" factors include heredity that we cannot influence [2.4.6.8].

They studied in detail the process of pregnancy in mothers with tooth - jaw disorders and deformities. Studies have found that in more than 55% of children with tooth - jaw disorders and deformities, the mother's pregnancy was accompanied by complications in the first and second half. The highest was in pregnancy, which was complicated by preeclampsia, anemia and the threat of abortion.

A survey was conducted among 787 children aged 5-16 years in order to identify and sort out the risk factors for the formation of tooth - jaws and deformities in different groups of Nations. The study found that artificial feeding ranked highest among "Managed" Risk Factors for children. Mestizo is the highest among "Controlled" Risk Factors for children with pathology of tooth eruption and alteration. The predominance of soft foods in the diet for children 6 months is the highest among the "Controlled" Risk Factors.

The risk factors that have the greatest impact on the appearance of tooth - anomaly and deformities are the antenatal period: a short period after the previous birth in the mother, complications of pregnancy and childbirth. In children aged 1.5 to 15 years with a severe Antenatal history, the risk of developing bite pathologies increases by 3.7 times, enamel hypoplasia - by 1.8 times, the development of caries in temporary teeth - by 1.3 times. In the Postnatal period, the risk of developing pathologies of the gums and deformities, deformities and hard tooth tissues increases by more than 2 times, with artificial feeding, poor sucking habits, in children who are often sick - by 1.5 times. In areas with high levels of atmospheric air pollution and high fluorine concentration in drinking water, the likelihood of developing anomalies increases by 2.2 times [7.9.11.13].

Indicates the pathogenetic importance of the amount of cytokines in children with congenital palate defects in the development of congenital pathologies of the face-jaw. Healthy children of this age as well as a patient with a congenital palate defect determine the feasibility of a comparative assessment of the amount of cytokines in children [8.10].

According to many authors, it combines respiratory diseases and functional disorders in the tooth - jaw system into a single pathogenetic chain. The main causes of dyspnea through the nose are enlarged adenoids, deviation of the nasal cavity, hypertrophy of the lower turbinates, and chronic rhinitis. The upper jaw arc, the inner side of the tongue, narrows, stretches and protrudes forward under the influence of the lunge, chewing muscles. The negative pressure created in the oral cavity contributes to the formation of the upper ("Gothic") palate, shifts to the lower jaw. As a rule, typical deformity develops - a distal occlusion that overlaps with a deep incision. Other forms of dentoalveolar anomalies are less common. Thus, in 38 of all patients examined, a violation of respiratory function was detected - pathological processes in the nasopharynx are considered. In 22 of the 138 children examined, speech and articulation disorders were found, often accompanied by contraction of the frenulum of the tongue, upper or lower lip, and a small vestibule of the oral cavity in the lower jaw [11.13.14].

Upon pre -orthodontic treatment examination of patients with dental-jawomalias, all were found to breathe through the nose, while 29 were found to have durus disorders. Worthy of such a factor as the premature loss of teeth long before the physiological changes associated with the removal of temporary teeth damaged by caries and its complications. Premature removal of any of the temporary teeth disrupts the structure of the teeth, which leads to a change in the function of the teeth, which is initially flexible in nature, which later becomes an etiological factor in the appearance of tooth - anomaly [9.11].

Scientific sources have found occlusion disorders in 68.65% of those examined when a survey of 1,144 children between the ages of 3 and 15 with an early loss of temporary teeth was conducted.

Natural feeding plays a very important role in the formation of orthognathic bites. Improper artificial feeding is one of the reasons for the development of tooth - jaw disorders. Currently, the number of children moving to early artificial and mixed feeding is increasing. According to the World Health

Organization, artificial feeding occurs in 13.0% of children at 1 month of age, 45.0% of children at 4 months of age, and 62.0% of children are transferred to full artificial feeding from 6 months of age [12].

Of the causative factors for the appearance of tooth - anomaly, bad habits - 82.9%, pathology of soft tissues around the teeth - 14.2%, and lack of timely prosthetics - 7.6%. 31.0 percent of the children under investigation showed signs of infant swallowing, 29.7 percent of children had misrecorded motor reactions, 15.5 percent had oral breathing, 4.3 percent had speech disorders, and 2.4 percent had signs of impairment.

Scientific sources have found that the risk of developing false occlusion in children under one year of age was found in 20% of children; in 3-year-olds, 40% were diagnosed with malocclusion due to non-rational use of the pacifier and poor habit [14].

As a result of the effect of chemically aggressive substances on the body, the balance of oxidative processes in the oral cavity, the spectrum of peptides in the oral fluid is disrupted, the intensity of anaerobic oxidation increases, which is an indicator of a decrease in protective mechanisms and reflects the harmful effects of ecotoxicants on the body, and also creates conditions. Thus, environmental factors indirectly affect tooth hard tissues, including are considered dependent on the variable characteristics and composition of saliva [11].

An analysis of the results of the clinical examination showed that regardless of the average absorbed dose of ionizing radiation in the children under investigation, the false occlusion rate is much higher and ranges from 47.27% to 54.0% in children aged 8-10 years. 34.62% to 41.87% - observed in children aged 12-14 [2].

When children infected with radioactive radiation were examined, the prevalence of tooth - jawomalia was found to be 1.8 times higher in the group of children born after the Chernobyl accident than in the control group.

According to the literature, fluoride has a significant impact on the spread of dental - jawomalia. It has been found that the least prevalence of anomalies has been reported in areas with optimal fluorine content in drinking water, and in areas with higher peak levels. According to other authors, in regions with low fluorine content, the frequency of dentoalveolar anomalies has been found to be 2 times higher than in endemic fluorosis foci [6].

In addition, the amount of fluoride affects the severity of their clinical picture, and not the spread of tooth - anomaly.

Conclusion. An epidemiological investigation was conducted among 440 schoolchildren born and living in two provinces, differing in the amount of fluoride in drinking water. The fluorine content in one region is 0.3-0.5 mg/l, in another region more than 1.5 mg/l. An analysis of the data obtained showed that in all age groups from 7 to 16-19 years, the prevalence of tooth - anomaly was 52.64% and 47.81%, respectively. Thus, the prevalence of risk factors and impaired function in children during temporary occlusion is $47.37 \pm 3.18\%$, and the frequency of risk, along with an increase in the number of dental - anomaly in early mixed bites. Factors increase to $54.24 \pm 1.93\%$. The frequency of Risk Factors in late removable and permanent bites decreases to 27.10% and 25.93%, respectively.

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