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POSTNATAL AND PERINATAL RISK FACTORS IN CHILDREN BORN WITH FACE DISABILITIES

Mukhsinova Lola Anvarovna

Associate Professor of the Department of Therapeutic Dentistry of the Bukhara State Medical Institute

Summary: Tooth eruption is a physiological, step-by-step process that characterizes the eruption of deciduous teeth in children, followed by permanent teeth. A tooth eruption is a transition from a non-functional state in the bone tissue of the jaw to a functional state. The dynamics of this process is related to the formation of the root, periodontium. closely related to the development and growth of the craniofacial complex.
Keywords: Teeth eruption, anomalies, tooth roots, genetic syndromes.

Depending on the actual mechanism of delay in tooth eruption, impact and aneruptia are distinguished: impact (impact - collision) is a delay in the exit of the tooth due to the presence of a mechanical barrier. The cause of this pathology may be a lack of space in the tooth row against the background of the density of the teeth, the presence of a mucous barrier, high-density teeth, etc .; aneruption (aneruption - absence of eruption, lack of eruption) is the primary disruption of the ejaculation process of ankylosing spondylitis with complete or partial absence of this growth [1].

It is known that tooth roots appear in the fetus in the 6th week of life in the uterus. For another 1.5 months, the process of mineralization of bone tissue takes place. During this period (13th week of pregnancy), the fetus receives calcium, phosphorus, protein and other substances from the mother's body that are necessary for the teeth [2]. During this period, various diseases, malnutrition, a woman taking certain medications (e.g., antibiotics in the tetracycline group) cause anomalies in the number and shape of tooth crowns in the fetus, disrupting the strength and color of their enamel.

At birth, the crowns of the baby’s 20 deciduous teeth are located at the depth of the alveolar growth of the jaws, in a fully formed position. Their excretion process, in particular, consists in their increasing size and protrusion, in which they overcome the resistance of the bone tissue, the mucous membrane. At this time, the gums swell and become impressive [2.].

Teeth erupt in a certain sequence, the order of eruption of teeth is disturbed in some diseases: rickets; genetic syndromes; absence of tooth roots as a result of severe pregnancy; endocrine pathology [5].

Zaxarova M.N. and hammual. [7] believe that various factors influence the emergence of deciduous teeth. The genotype and constitution of a person play a key role in the process of tooth extraction, and the role of various environmental factors cannot be ruled out.

The authors believe that teeth in children from older families come out more timely than children from younger families. In the average child, teeth start erupting earlier than in boys, while in girls they erupt earlier than in boys, there is a direct correlation between the rate of premature birth and the timing of the eruption of deciduous teeth. The peculiarities of pregnancy in the mother also affect the physiological output of the teeth.

Disorders of tooth extraction and exchange processes can be observed in pituitary pathology in newborns, refusal of breastfeeding, frequent acute respiratory diseases, pneumonia, sepsis [19].

Yatsenko A.K. and hammual. [13.] According to the data, at the present stage, as before, the study of age-sex and regional characteristics of tooth extraction remains an important indicator of the state of biological maturity and health of children. It is necessary in the planning and implementation of measures to prevent the biological developmental disorders of the physiological and pathological aspects of tooth extraction and tooth formation in the pediatric population. Also Vatlin A.G., Chuchkov V.M. [2] agreed.

Arxipova Yu.A., Timchenko V.V. [14] found that 156 children born to HIV-positive women had teething periods in the first year of life. Perinatal HIV infection has been shown to cause delayed tooth extraction in children. In his research, Aldrovandi G.M. [13] and Jsanaka S. [6] obtained similar results.

The eruption of teeth serves as an indirect indicator of the proper development of the child. The eruption of teeth, which is a physiological process, is not considered a painful event and does not lead to pathological conditions. It is directly related to the state of health of the child, the timely growth of teeth in a certain order indicates the normal development of the child's body [1] Galonsky V.G. and hammual. [3] Krasnoyarsk sh. presented the results of a study of the process of extraction of temporary and permanent teeth in children in the area. In the form of age ranges, the sequence of teeth eruptions and average durations, transient biting were determined. The specific differences in the timing of temporary and permanent teeth eruption in boys and girls, as well as the regional specificity of these indicators in the contingent of children examined.

The difference between the sexes is important in the eruption of permanent teeth. Asymmetrical eruption of the upper incisors was observed in all children. Feraru I.V., who studied Romanian children. et al. [15] obtained similar results. Bimbas E.S. and hammual. [8.] Ekaterinburg sh. determined the timing of the eruption of permanent teeth in early replacement teeth in children of primary school age. Certain differences have been identified with the standard eruption times of teeth, indicating the need to identify them in each region.

Ayupova F.S. [17.] studied the sequence of eruption of pile teeth and premolars in 216 children aged 7–12 years. Transient dental caries in children in the main group was accompanied by permanent tooth and root location disorders, deformation of the tooth arches, disruption of the sequence and timing of permanent dentures and premolars. In her other research, Ayupova F.S. [18.] A study of the medical records of 998 children aged 3–10 years who applied for orthodontic treatment between 2003 and 2012. In Krasnodar Krai, the prevalence of secondary adenta in children seeking orthodontic care was found to be 31.27%. In the structure of the temporary teeth removed prematurely, the incisors, the first molars, the lower molars, and their specificity to each other predominated.

Denisenko D.V., Yanovskiy L.M. [3.] analyzed modern aspects of the study of the age of permanent teeth eruption in children in different regions. The authors proposed single criteria for evaluating the process of permanent tooth extraction.

Starchenko I.I. [10.] based on morphological studies gave a comparative description of the root of the first and second milk molar teeth in humans at 10–12 weeks of development in the uterus. During the study period, the early stage of the period of formation and differentiation of tooth roots in the roots of the first milk molar teeth was observed. In the early stages of

odontogenesis, it is hypothesized that there is a direct correlation between the degree of root maturity of deciduous teeth and the timing of the emergence of corresponding deciduous teeth.

Iordanishvili A.K. and hammual. [9.] provides data on dental examination of the jaws and study of cone-beam computed tomography of 93 men aged 18–27 years to study the anatomical-topometric characteristics of the upper and lower jaws in the eruption or retention of wisdom teeth. The study revealed the peculiarities of the anatomical structure of the jaw alveolar tumor in the protrusion and retention of the molars, below, in the area of the bulge in the retromolar area.

Proper and timely formation of teeth is of great importance for the normal development of the child's body. Disruption of tooth extraction can lead to the formation of malocclusion in children [30; 56-b., 2; 24-b.].

Terexova T.N. [11.] The norms of function are formed together during the period of tooth formation, the possible formation disorders, the influence of harmful habits on the formation of the facial-jaw area. He suggested ways to eliminate harmful habits and lead to the proper development of the dental system in children, to normalize the function of this system and to prevent pathologies in the development of permanent dental anomalies and deformations.

Vodolatskiy M.P., Vodolatskiy V.M. Stavropol sh. A dental examination of 2,676 preschool and school-age children aged 4–17 years studied the nature of dental disorders in children and adolescents.

Inoyatov A.Sh., Muxsinova L.A. (2020) studied the deviation dynamics of the upper and lower jaw dental arches and apical base in children aged 3–6 years and presented a morphological characteristic of the dental jaw system, in which 2 phases were distinguished - stable and labile before the tooth exchange.

A number of deviations can occur in the structure of teeth, their location and development for various reasons [12.]: absence of tooth root, incorrect placement of the tooth axis (horizontal and curved), resulting in it protruding beyond the arch of the tooth row or remaining in the jaw bone layer, malformation of the tooth itself - size, shape, condition, color, lack of enamel coating.

Reasons for delay in tooth extraction [2.]: adentia (the process of formation of tooth roots in the fetus under the influence of various factors is disrupted) and retention (failure of teeth). Adentia can be caused by inflammation around the roots of deciduous teeth and damage to the roots of permanent teeth as a result of the destructive process. Congenital adenta of many teeth leads to a violation of the condition of the teeth and the functional loading of some of them, the development of alveolar growth, lack of tooth height, aesthetic deviations.

Dentoalveolar anomalies are endogenous and exogenous. Endogenous causes of detoalveolar anomalies include two groups, hereditary factors and endocrine factors. Children pass from parents to tooth structures and various signs. Also, the combination of genetic genes may be different. Sometimes this causes dentoalveolar anomalies. In addition, the genetic hereditary defect of the facial skeleton (congenital defect of the hard palate, Shershevsky's disease, diostoses, hereditary diseases of the development of tooth enamel dentin) has a special place. Anomalies of the size of the jaw are also hereditary (macrognathia - enlargement of the jaw, micrognathia - underdevelopment of the jaw).

The endocrine system plays an important role in a child’s growth. Disorders of the endocrine system affect the jaw-tooth system. For example, hypothyroidism (decreased thyroid function) is observed delay in the development and formation of teeth and jaws (delayed tooth, enamel hypoplasia ...). Congenital hyperthyroidism has a major impact on the facial-jaw skeleton and its development. With the acceleration of thyroid function, the middle and lower part of the face retreats in formation, which is associated with a delay in the growth of the jaw. However,

dysfunction of the masticatory muscles is observed. Exogenous causes of dentoalveolar anomalies vary. It is observed in the perinatal period and after childbirth. During fetal development, the environment that surrounds a pregnant woman plays a very important role - ecology, fluoride in drinking water, the amount of essential vitamins and minerals in food and the consumption of any medications. All this leads to impaired tooth development in the fetus. Toxicity, smoking, stressful situations, and viral illnesses have also been observed to cause dentoalveolar anomalies.

Pathologies of the facial skeleton can be caused by external environmental factors after childbirth.

- artificial feeding of the child.
- Diseases of childhood (rickets).
- Deficiency of vitamins and minerals in water and food.
-difficulty breathing through the nose.
-Bad habits that can be encountered in a child
-functional insufficiency of chewing and facial muscles.

Among the endogenous risk factors for the occurrence of dentoalveolar anomalies, the genetic account is 25%, and endocrine factors (hypo and hyperthyroidism, hypocalcytism, growth hormone deficiency) are approximately the same.

Causes of dentoalveolar anomalies after birth include shortness of breath from the mouth, short curls of the upper lip, bad habits (breastfeeding during the formation of teeth).

Attention is paid to the following to ensure the correct formation of the child's teeth.

-breastfeeding for up to one year.
-follow the diet prescribed by a pediatrician.

To date, there is no single methodological approach to the detection and registration of dentoalveolar anomalies, and the criteria for the final prognosis, goals and effectiveness of prevention have not been sufficiently defined. In this regard, there are no measures to reduce this pathology.

The above factors inevitably lead to an increase in a number of pathologies, anomalies and defects in the development of teeth, jaws and occlusions, which we actually encounter in forty to fifty percent of the population. Other factors - changes in diet, consumption of sweets, decreased tooth resistance due to lack of fluorides, etc. make a human tooth a hostage to unfavorable conditions for its development and function. In the Far North, there is a very unfavorable set of natural, biological and social factors that have a drastic impact on children’s health, including dental disease. [16.] There is almost no fluoride in the water and very few calcium salts. Due to the short polar summer climate, the level of natural isolation is generally insufficient, leading to rickets, impaired tooth and jaw function.

The aim of the study was to determine the relationship between perinatal and postnatal risk factors in tooth extraction and tooth formation in children born with labial and palate congenital malformations.

Research materials and methods.

150 children were recruited for this work, 40 of them were healthy children and were taken from the preschool for a dental examination with the consent of their parents. It is based on clinical and laboratory examination and treatment of 110 children with facial defects in the Bukhara Regional Children's Multidisciplinary Medical Center, Department of Oral and

Maxillofacial Surgery. This study is based on the results of individual clinical-laboratory and equipment observations.

Criteria for admission of patients to the study:

- Presence of clinical diagnosis of facial defects;
- Consent of parents to their children's participation in the study;
- Boys and girls under 6 years old;

Criteria for exclusion of patients from the study:

- Children with serious illnesses.

All 150 children examined were divided into 2 groups: comparison group 1 consisted of 40 healthy children (26.7%) and the main group consisted of 110 children (73.3%) with upper lip and palate defects (Figure 2.1). see).

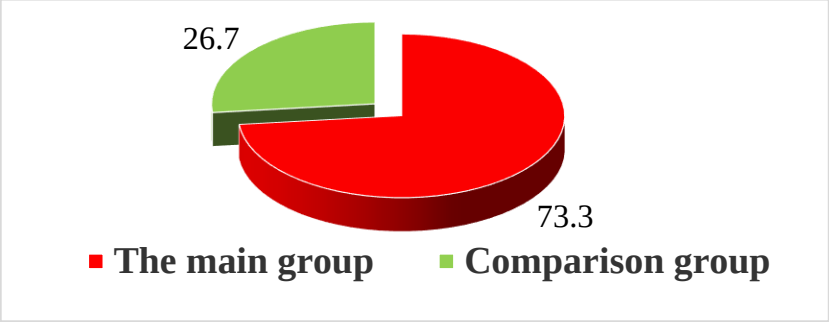

Figure 1. Distribution of examined children by groups

Under the influence of negative environmental factors, there is a decrease in the activity of the immune system, which leads to mutation pressure, lowers the health index in the population and increases the number of newborns with facial defects. All this together affects the formation of normal teeth and the timing of tooth extraction.

Our main goal is to identify risk factors that affect normal tooth formation and tooth extraction times in children with facial defects. In their formation, it is important to search for the most informative risk factors that allow to predict the likelihood of pathology in children born with facial defects and to plan preventive measures. The leading cause may be the influence of many factors in different combinations. It is possible that the initial state of health of the parents, the negative impact of the environment, infections, genetic predisposition can contribute to the formation of congenital malformations in children.

Research results. In the main group of children, unilateral limited cleft lip and palate was 32 (29.1%), hard and soft palate - 25 (22.7%), unilateral cleft lip - 27 (29.7%), soft palate defects - 11 (10.0%), hard palate defects - 13 (11.8%), atypical facial defects - 2 (1.8%).

Patient A. has a complete bilateral defect of the upper lip and leads to nasal deformity, as well as a bilateral defect of the upper jaw alveolar tumor with protrusion of the bone between the jaws, a complete bilateral defect of the hard palate with a complete bilateral defect of the upper jaw, upper jaw palate not combined with tumors. This pathology leads to dysfunction and, as expected, the degree of expression of the dysfunction depends on the severity of the congenital defect. From the first day, the child was breastfed artificially because the suction function was severely impaired (see Figure 3.2, Figure 3.3).

Impaired suction and swallowing functions are observed from the first days after birth. In a child with a palate defect, the oral cavity is fused with the nasal cavity, making it impossible to

create airtightness in the oral cavity during suction. The child is unable to breastfeed, and during artificial feeding, a lot of congestion and aspiration of liquid food was observed.

When analyzing the age of the mother of the children, the risk factor of 36 to 40 years of age was the risk factor (RR = 3.40) (see Table 1).

Table 1

The age of the mother of the children examined, with facial defects

Young	The main group, n=110		Control group, n=40		RR	P
	abs	%	abs	%		
20 up to the age of	20	18,2	6	15,0	0,90	>0,05
21-25	26	23,6	15	37,5	0,75	>0,05
26-30	30	27,3	12	30,0	0,84	>0,05
31-35	20	18,2	5	12,5	1,44	>0,05
36-40	14	12,7	2	5,0	3,40	>0,05

Analysis of the data in Table 2 showed that the occupation of the mother of 22 children in the main group (20.0%, RR = 1.95) was irrelevant (see Table 2).

Table 2

The profession of the mother of children with facial defects, examined

Profession	The main group, n=110		Control group, n=40		RR	P
	abs	%	abs	%		
Worker (harmful production)	22	20,0	5	12,5	1,95	>0,05
Servant	16	14,5	11	27,5	0,65	<0,05
Student	15	13,6	3	7,5	1,22	>0,05
Housewife	34	30,9	14	35,0	0,79	>0,05
Winter. boss worker	23	20,9	7	17,5	0,80	>0,05

One of the most relevant areas of research on the formation of correct dentition and the timing of tooth extraction in children born with facial defects is to determine the effect of antenatal and perinatal factors.

Conclusion

1. In children born with unilateral limited cleft lip and palate, the central incisors were 9.0 (R <0.001) later than in healthy children, and in children with complete hard and soft palate, the incisors were 7.4 (R <0.001) per month, in children born with unilateral complete deformity of the upper lip - 7.9 (R <0.001) per month, in children born with soft palate - 3.1 (R <0.001) per

month, in children with limited cleft lip - 5.2 (R <0.001) months, in children with atypical defects the central incisors appeared 9.9 (R <0.001) months late.

2. The formation of teeth in children with congenital malformations of the upper lip and palate was observed as follows: Orthognathic teeth, essentially correct teeth, formed in 2 children (1.8%, R <0.001) with congenital facial defects, mesial teeth - 70 people (63, 7%, R <0.001), open bite - 28 people (25.5%, R <0.001), deep bite - 4 people (3.6%, R <0.001), cross bite - 6 people (5.4%) , R <0.001) was recorded in the child.

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