

вище дані, були показники при травматичної та змішаної формах ятрогенного синуситу 26,0% та 23,7%, відповідно ( $p < 0,05$ ). Частота гіпозохогенної слизової оболонки (ексудация) була значно нижчою в групі з травматичною формою ятрогенного синуситу ( $4,8 \pm 4,6\%$  випадків), вищою в інфекційно-алергічній формі ( $26,6 \pm 11,3\%$ ). Ізохогенна слизова оболонка є ультразвуковим індексом незміненої мембрани Шнайдера, значно частіше ( $p < 0,05$ ) була виявлена у групі з медикаментозною (лікарською) формою ятрогенного синуситу ( $63,6 \pm 14,5\%$  випадків), що є значно вище ( $p < 0,05$ ), ніж у інших дослідницьких групах.

**Ключові слова:** ятрогенія, стоматогенна ятрогенія, ятрогенний верхньощелепний синусит, систематизація ятрогенії, ультразвукове дослідження, диференційна діагностика.

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этиопатогенезе болезни. Значительно ниже, чем указанные выше данные были показатели травматических и смешанных форм ятрогенного синусита: 26,0% и 23,7%, соответственно ( $p < 0,05$ ). Частота гипозохогенной слизистой оболочки (экссудация) была значительно ниже в группе с травматической формой ятрогенного синусита ( $4,8 \pm 4,6\%$  случаев), выше в инфекционно-аллергической форме ( $26,6 \pm 11,3\%$ ). Изохогенная слизистая оболочка значительно чаще ( $p < 0,05$ ) была обнаружена в группе медикаментозной (лекарственной) формы ятрогенного синусита ( $63,6 \pm 14,5\%$  случаев), что значительно выше ( $p < 0,05$ ), чем в других исследовательских группах.

**Ключевые слова:** ятрогенія, стоматогенний ятрогенія, ятрогенний верхньощелепний синусит, систематизація ятрогенії, ультразвукове дослідження, диференціальна діагностика.

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## DENTISTS VIEW ON FETAL MACROSOMIA

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The article is devoted to the study of the dental status features, including the terms of the deciduous tooth eruption, in the children of Kharkiv population (Kharkiv city, Ukraine) who were born with macrosomia, taking into account accelerated intrauterine growth, intrauterine obesity or balanced intrauterine growth acceleration and the body weight gain. Dental status analysis in newborns and infants born with macrosomia (Main group) and normosomia (Reference group) was carried out. The total of 173 children (102 boys and 71 girls) born in 2014-2017 were examined. It was shown that dental disorders were found in the both groups at birth - in 53.8% of newborns in the macrosomic group and in 24.6% of newborns in the group of normosomes. Abnormalities of soft tissues were associated with fetal macrosomia. In the macrosomic group, in children with the balanced intrauterine increase in body weight and body length, the process of deciduous tooth eruption was more harmonious. Delayed terms of deciduous tooth eruption were observed in children born with macrosomia with enlarged intrauterine body length and relatively low body weight. Children born with macrosomia and intrauterine obesity and girls with intrauterine acceleration in combination with obesity tend to premature tooth eruption. Macrosomic children with large intrauterine body length and a relatively low body weight demonstrated the highest percentage of the violation in tooth eruption sequence and the highest percentage of the bilateral asymmetry.

**Key words:** fetal macrosomia, infancy, terms of deciduous tooth eruption, oral cavity.

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At present, the hypothesis of fetal programming of the child's health has become a paradigm [8]. The intrauterine programming of the craniofacial complex status is not an exception [7]. On the background of a general increase in the average body weight among the population of economically developed countries, the number of children born with macrosomia is growing [4]. Fetal macrosomia is determined when the weight of the infant at birth is greater than or equal to 4.000 g [12].

In different years, several modifications of classification for macrosomic newborns were suggested. One commonly used is a classification based on the harmonious coefficient of the child's intrauterine development. Studies of immediate and long-term macrosomia consequences that affect an infant's health have a long history [14, 15]. The presence of features in the dental status in children born macrosomic was also confirmed by our own researches [6, 7]. There is a small number of works by foreign scholars devoted to the association of fetal macrosomia and dental disorders in ontogenesis. Almost all of them relate to the problem of caries in children and adolescents [9, 10]. Information available in the literature on the dental status in the first year life infants born with macrosomia, particularly, about the tooth eruption terms, is quite limited and contradictory.

Due to the multi-aspect nature of factors influencing the tooth eruption processes [3, 16], deviations from the generally accepted norms of deciduous and permanent tooth eruption, both the premature and the delayed eruption deviations, is not uncommon. The scientific literature distinguishes between biological and chronological delay of tooth eruption. The biological delay of tooth eruption is fixed when the eruption did not occur in the presence of 2/3 or more of the formed tooth root. The degree of the tooth root system

formation is determined by X-ray examination, which is unacceptable during the first year of child's life. The chronological deciduous tooth eruption delay is considered to be the eruption that occurred later than  $2 \times SD$  (2 standard deviations) from the regional tooth eruption norms [5]. Information on deviations from the generally accepted tooth eruption terms is the basis for development of prevention programs and treatment timing for maxillofacial area disorders. The above facts give grounds to consider the studies on the tooth eruption terms in infants born with macrosomia to be relevant.

**The purpose** of the project was to study features of the dental status in newborns and infants during their first year of life, and particularly the terms of deciduous tooth eruption as one of the markers for dental or systemic pathology, in persons of the Kharkiv population who were born large for the gestational age (macrosomia) taking into account accelerated intrauterine increase in body length; intrauterine obesity; or harmonious acceleration of body weight gain and the body length growth.

**Materials and methods.** The study was carried out on the basis of the Kharkiv Municipal Perinatal Centre, the Department of Fetal Genetics, Obstetrics and Medicine of the Kharkiv Medical Academy of Postgraduate Education (KhMAPO), the University Dental Center of Kharkiv National Medical University (KNMU) and the Department of Therapeutic Dentistry of the KNMU.

Newborn and Infant Dental Record Sheet was used to determine the dental status of newborns and infants. [1] The lingual frenum was classified according to F.Ya. Horoshilkina's classification, the shape, density, and peculiarities of the superior labial maxillary, and the mandibular labial frenum were estimated by the L. Kotlow's assessment [11].

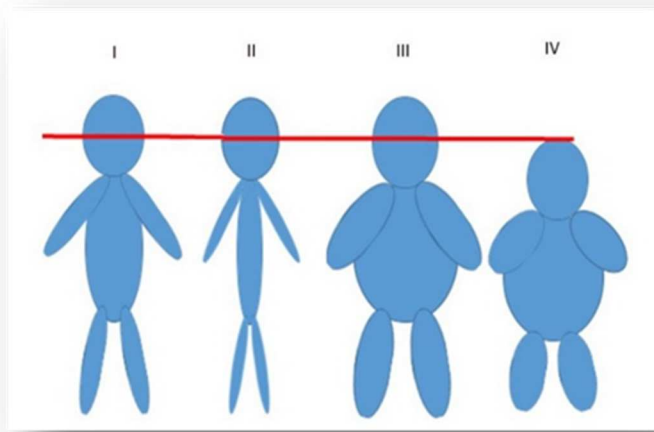


Fig. 1. Schematic representation of the newborns in macrosomic subgroups taking into account the harmonious coefficient by V.I. Hryshchenko et al., where subgroup I – newborns with the balanced acceleration of both growth and weight gain; subgroup II - newborns with increased body length and relatively low body weight; subgroup III - newborns that have a large body length and large weight (with intrauterine acceleration against the background of obesity); subgroup IV - newborns with average body length and pronounced obesity.

boys and 6 girls). Subgroup III was represented by 18 (10 boys and 8 girls). Subgroup IV included 17 children (7 boys and 10 girls). Sixty-nine children (39 boys and 30 girls) who had average height-weight parameters at birth (normosomia), constituted the Reference group.

Repeated examinations were carried out for the same children aged 4 to 20 months. The study involved 85 (52 boys and 33 girls) of macrosomic infants at birth and 55 (31 boys and 24 girls) infants from the Reference group. At repeated surveys, we assessed the degree of the dentofacial system development, based on the chronological norms of deciduous tooth eruption [5].

Assessment of the studied parameters mean values was performed using the MS Excel 2016 software. The hypothesis about the difference between the mean values of the parameters in small groups was checked using non-parametric statistics according to the Mann-Whitney criterion applying the Statistica 6.0 package.

The percentage of cases of delay or premature teeth eruption in all groups and subgroups with confidence intervals with the error probability  $p < 0.05$  was estimated for the binomial distribution law of the random variable.

**Results of the study and their discussion.** Table 1 shows the average height-weight parameters involved in the study infants at birth, and at their reaching the age of 1 year.

As expected, it is seen from table 1 that at the birth, macrosomic children in all subgroups, on average, have a reliable and significant (over 30%) prevalence in body weight in comparison with the

In total, we have studied 173 children's medical records, the total of 173 infants (102 boys and 71 girls) were examined, aged from one to two years old, who were born in 2014-2017. One hundred four children (63 boys and 41 girls) who were born with macrosomia, i.e. their height-weight parameters were above 90 percentiles, represented the Main group. To determine the features of the dental status and the of tooth eruption terms, all children of the Main group were divided into 4 subgroups (fig. 1), taking into account the harmonious coefficient by V.I. Hryshchenko et al.

The total of 51 (34 boys and 17 girls) were assigned to subgroup I. Subgroup II included 18 children (12

normosomic. A significant advantage over the normosomes in the averaged body length occurs only for the macrosomic children of the first three subgroups. At the age of one, there are no significant differences between the averaged values of the body mass index in macrosomic and normosomic children. This state of affairs may be explained by the fact that during the pregnancy, the so-called "maternal" factors are effecting the fetus, and after birth, the infant's developmental rate depends more on genetically determined preconditions. In infants born with excessively high body mass indices, the so-called "growth down" occurs during the 18 months after birth, and in children having insufficient (or, as in our case, relatively insufficient) body weight at birth, there occurs a "growth up" [13].

Table 1

**Mathematical expectation of the child's weight, length and body mass index at birth and at the age of one year for children with both fetal macrosomia and normosomia at birth**

Groups and subgroups	Reference	Subgroup I	Subgroup II	Subgroup III	Subgroup IV
Body weight at birth, kg	3.367	4.265*	4.306*	4.593*	4.190*
boys	3.290	(p=0.000001)	(p=0.000001)	(p=0.000001)	(p=0.000003)
girls		4.262*	4.293*	4.357*	4.041*
		(p=0.000001)	(p=0.00013)	(p=0.000017)	(p=0.0013)
Body length at birth, cm	52.51	56.42*	58.67*	55.60*	52.71
boys	52.20	(p=0.000001)	(p=0.000001)	(p=0.00016)	52.30
girls		56.44*	59.17*	54.75*	
		(p=0.000001)	(p=0.00013)	(p=0.00034)	
Body mass index at birth,	23.32	23.73*	21.32*	26.65*	28.60*
boys	23.18	(p=0.039)	(p=0.00063)	(p=0.00016)	(p=0.0011)
Girls		23.69	20.74*	26.54*	28.30*
			(p=0.0022)	(p=0.000071)	(p=0.0023)
Body weight at the age of 1 year, kg	10.86	11.41	11.69	11.66	10.95
boys	10.08	10.89*	11.45*	10.30	10.59
girls		(p=0.029)	(p=0.029)		
Body length at the age of 1 year, cm	78.67	78.62	78.10	80.00	80.25
boys	76.20	78.88*	80.50*	76.67	76.78
girls		(p=0.026)	(p=0.027)		
Body mass index at the age of 1 year	22.49	23.68	24.75	23.02	22.37
boys	22.88	22.40	22.02	23.27	23.58
girls					

\* – The difference between macrosomic children (Main group) and normosomic children (Reference group) of one and the same gender is significant (within the 0.95 confidence interval).

In the primary examination, the pathology of the craniofacial complex was detected in fifty-six (53.8%) of the Main group infants and in seventeen (24.6%) of the Reference group. Summarized data on the presence of pathology with account of the child's gender are presented in table 2.

We have found significant differences in the dental status in macrosomic newborns from that of normosomic. Moreover, the percentage of soft tissue anomalies is significantly higher for macrosomic infants at birth compared to normosomic. Girls in Subgroups I, II, IV and boys in Subgroup II had a significantly higher percentage of cases of ankyloglossia. As for girls from Subgroup I and boys from Subgroup II, there were significant differences from the Reference group for the percentage of the upper lip frenulum abnormalities.

In the repeated examinations, there was also a high percentage of dense, low-attached frena of the upper lip in the Main group (fig. 2).

In the medical community, there is currently no consensus on the need to consider it a pathology, but the observation of the infants' dental status in the dynamics, in our opinion, confirms the need for an earlier surgical management in order to prevent the development of dental disorders in ontogenesis.

Attention is also paid to the presence of hypoplastically-modified, small in size crown portion of the frontal teeth in children born with macrosomia (fig. 2). At repeated examinations in Main group of infants in 10 (%) children the tortoanomaly of the frontal lower teeth was fixed (fig. 3). This fact is interesting, because these children did not have ankyloglossia. In our opinion, such a disorder may be the result of some local factors and testify to the underdevelopment of the jaws' frontal segment.

Let us consider peculiarities of the deciduous teeth eruption in infants of different subgroups born with macrosomia. From our earlier retrospective-statistical studies on extensive factual material [8] it is known that, on average, the first tooth eruption in the Reference group (normosomia) started earlier.

Infants with normal height-weight parameters at birth had on average more teeth at the age of one than those from the Main group.

Table 2

**Summarize data on the presence of the of the craniofacial complex pathology for children with both fetal macrosomia and normosomia at birth**

Group or subgroup, gender (number)	Reference		Main		Subgroup I		Subgroup II		Subgroup III		Subgroup IV	
	Boys (39)	Girls (30)	Boys (63)	Girls (41)	Boys (34)	Girls (17)	Boys (12)	Girls (6)	Boys (10)	Girls (8)	Boys (7)	Girls (10)
Number of birth ear and face defects; their %	0; 0% 0% - 9.0%	1; 3.3% 0.8% - 11.6%	4; 6.3% 2.6% - 13.3%	1; 2.9% 0.7% - 10.0%	2; 5.9% 1.9% - 15.3%	1; 5.9% 1.5% - 19.5%	1; 8.3% 2.1% - 26.5%	0; 0% 0% - 45.9%	1; 10% 2.5% - 30.8%	0; 0% 0% - 36.9%	0; 0% 0% - 60.2%	0; 0% 0% - 30.8%
Number of ankyloglossia cases; their %	6; 15.4% 7.5 - 27.4%	5; 16.7% 7.7% - 30.7%	21; 33.3% 23.3% - 44.7%	21; 51.2%* 37.4% - 64.9%	10; 29.4% 17.4% - 44.4%	9; 52.9%* 32.9% - 72.2%	6; 50.0%* 27.7 - 72.3%	2; 33.3% 11.8% - 64.1%	3; 30.0% 12.2% - 55.6%	5; 62.5%* 34.9% - 84.3%	2; 28.6% 9.9% - 57.9%	5; 50.0% 26.2% - 73.8%
Number of the upper lip frenulum anomalies; their %	2, 5.1% 1.6% - 13.5%	3, 10.0% 3.8% - 22.1%	15, 23.8%* 15.3% - 34.5%	17, 41.5%* 28.5% - 55.5%	8, 23.5% 12.9% - 37.9%	9, 52.9%* 32.9% - 72.2%	5, 41.7%* 21.1% - 65.1%	2, 33.3% 11.8% - 64.1%	2, 20.0% 6.7% - 44.5%	3, 37.5% 15.7% - 65.1%	0; 0% 0.6% - 60.2%	3; 30.0% 12.2% - 55.6%
Number of Gothic palate cases; their %	3; 7.7% 2.9% - 17.3%	5; 16.7% 7.7% - 30.7%	5; 7.9% 3.6% - 15.5%	7; 17.1% 8.8% - 29.2%	4; 11.8% 5.0% - 23.7%	2; 11.8% 3.8% - 28.7%	1; 8.3% 2.1% - 26.5%	1; 16.7% 4.3% - 45.9%	0; 0% 0% - 30.8%	1; 12.5% 3.2% - 36.9%	0; 0% 0% - 60.2%	3; 30.0% 12.2% - 55.6%
Number of the maxillary anomalies cases; their %	0; 0% 0% - 9.0%	3; 10.0% 3.8% - 22.1%	2; 3.2% 1.0% - 8.5%	0; 0% 0% - 8.6%	2; 5.9% 1.9% - 15.3%	0; 0% 0% - 19.5%	0; 0% 0% - 26.5%	0; 0% 0% - 45.9%	0; 0% 0% - 30.8%	0; 0% 0% - 36.9%	0; 0% 0% - 60.2%	0; 0% 0% - 30.8%
Number of cysts in the oral cavity or natal teeth; their %	0; 0% 0% - 9.0%	0; 0% 0% - 11.6%	5; 7.9% 3.6% - 15.5%	2; 4.9% 1.5% - 12.9%	4; 11.8% 5.0% - 23.7%	0; 0% 0% - 19.5%	0; 0% 0% - 26.5%	0; 0% 0% - 45.9%	1; 10% 2.5% - 30.8%	2; 25.0% 8.5% - 52.7%	0; 0% 0% - 60.2%	0; 0% 0% - 30.8%

\* – The difference between macrosomic children (Main group) and normosomic children (Reference group) of one and the same gender is significant (within the 0.95 confidence interval).

Table 3 presents the mathematical expectation of the child's age at the time of the first tooth eruption, the averaged values of the number of teeth at the age of 1 year in children of different groups and subgroups.



Fig. 2. Photographic representation of the oral cavity frontal area of child O. (girl) at the age of one year and nine months, macrosomia, subgroup II. There is a hypoplastically-modified form of the 51, 52, 61, 62 teeth, type IV (Kotlow L.) of the upper lip frenulum.



Fig. 3. Photographic representation of the oral cavity frontal area of child B. (girl) at the age of one year and two months, macrosomia, subgroup II. There is a tortoanomaly of the tooth 71 (counterclockwise) and tooth 81 (clockwise).

In the present study, on the average, tooth eruption began later in children in Subgroups I, II and in boys in Subgroup III, although this assertion was only valid for girls from Subgroup II. The mean values of the number of teeth at the age of one for boys with macrosomia were insignificantly lower in comparison with the normosomes of the same gender, for girls the whole picture was the opposite, although in girls in Subgroup II a significant decrease of this index was observed.

Table 3

**Mathematical expectation of the child's age at the time of the first tooth eruption and the number of teeth at the age of 1 year for children with both fetal macrosomia and normosomia at birth**

Groups and subgroups	Reference boys girls	Main boys girls	Subgroup I boys girls	Subgroup II boys girls	Subgroup III boys girls	Subgroup IV boys girls
Mean terms of the first tooth eruption, months	6.56 6.67	6.6 7.3	6.85 6.97	6.73 9.50* (p=0.014)	7.19 6.71	5.78 6.70
Mean number of teeth at the age of 1 year, pcs	7.58 6.96	7.17 7.06	6.38 7.59	7.55 4.00* (p=0.015)	6.75 7.14	7.43 7.50

\* – The difference between macrosomic children (Main group) and normosomic children (Reference group) of one and the same gender is significant (within the 0.95 confidence interval).

The predominant nature of teeth eruption can also be estimated by the number of cases of extreme deviation from the regional tooth eruption norms. Summarized data on the number of cases of premature or delayed tooth eruption in the study participants are presented in table 4.

Thus, in 29 infants (63.0%) of Subgroup I (with a large body length and harmonious development), the eruption of first deciduous tooth falls in the period between 5 and 9 months of child's life. A significantly less percentage of delayed tooth eruption was single out in this Subgroup than in Subgroups II and III. The average periods of the first tooth eruption and the number of teeth at the age of one were comparable to the values obtained for the normosomic children of the same gender. Extreme values of delayed or premature tooth eruption in this group of infants were not detected. There were 5 children or 10.9% (3 boys and 2 girls) having bilateral asymmetry and violation in tooth eruption sequence in this Subgroup.

Table 4

**Summarized data of premature and delayed tooth eruption cases for 1 year old children with both fetal macrosomia and normosomia at birth**

Groups and subgroups	Number of girls with delayed teeth eruption; their %	Number of boys with delayed teeth eruption; their %	Number of girls with premature teeth eruption; their %	Number of boys with premature teeth eruption; their %	Number of girls having 2 or less teeth at the age of 1 year; their %	Number of boys having 2 or less teeth at the age of 1 year; their %	Number of girls having 11 or more teeth at the age of 1 year; their %	Number of boys having 11 or more teeth at the age of 1 year; their %
Reference (31 boys, 24 girls)	0; 0% 0% - 14.2%	2; 6.5% 2.0% - 16.7%	0; 0% 0% - 14.2%	1; 3.2% 0.8% - 11.2%	0; 0% 0% - 14.2%	0; 0% 0% - 11.2%	0; 0% 0% - 14.2%	1; 3.2% 0.8% - 11.2%
Main (57 boys, 39 girls)	10; 25.6% * 15.0% - 39.3% *	9; 15.8% 8.7% - 25.8%	9; 23.1% 13.0% - 36.5%	9; 15.8% 8.7% - 25.8%	5; 12.8% 5.9% - 24.2%	4; 7.0% 2.9% - 14.6%	5; 12.8% 5.9% - 24.2%	3; 5.3% 1.9% - 12.1%
Subgroup I (29 boys, 17 girls)	3; 17.6% 6.8% - 36.4%	5; 9.6% 4.4% - 18.5%	3; 17.6% 6.8% - 36.4%	3; 5.8% 2.1% - 13.2%	0; 0% 0% - 19.5%	3; 5.8% 2.1% - 13.2%	2; 11.8% 3.8% - 28.7%	0; 0% 0% - 6.8%
Subgroup II (11 boys, 5 girls)	4; 80.0% * 47.8% - 94.7% *	1; 9.1% 2.3% - 28.5%	0; 0% 0% - 52.2%	2; 18.2% 6.0% - 41.3%	2; 60.0% * 28.4% - 85.3% *	1; 9.1% 2.3% - 28.5%	0; 0% 0% - 52.2%	1; 9.1% 2.3% - 28.5%
Subgroup III (10 boys, 7 girls)	2; 28.6% 9.9% - 57.9%	3; 30.0% 12.2% - 55.6%	2; 28.6% 9.9% - 57.9%	1; 10.0% 2.5% - 30.8%	2; 28.6% 9.9% - 57.9%	0; 0% 0% - 30.8%	2; 28.6% 9.9% - 57.9%	1; 10.0% 2.5% - 30.8%
Subgroup IV (7 boys, 10 girls)	1; 10% 2.5% - 30.8%	0; 0% 0% - 41.0%	4; 40.0% * 18.7% - 65.2% *	4; 57.1% * 29.0% - 81.6%	1; 10% 2.5% - 30.8%	0; 0% 0% - 41.0%	1; 10% 2.5% - 30.8%	1; 25.0% 6.8% - 60.2%

\* – The difference between macrosomic children (Main group) and normosomic children (Reference group) of one and the same gender is significant (within the 0.95 confidence interval).

In 9 children (56.3%) of Subgroup II (large body length with a relatively low body weight), the deciduous tooth eruption started at the interval between 5 and 9 months of child's life. The average period of tooth eruption and the average number of teeth at the age of one year were lower than those in the Reference group infants, for girls this difference is reliable. Girls in this Subgroup also have a reliably higher percentage of delayed tooth eruption and a significantly lower average number of teeth at the age of one year. There were 4 infants, or 25.0% (3 boys and one girl), having bilateral asymmetry and violation in tooth eruption sequence.

In subgroup III (acceleration in combination with obesity), also in 9 children, or 50%, tooth eruption started at the interval between 5 and 9 months of child's life. Analyzing the data from tables 3 and 4, it can be stated that the boys in this Subgroup tend to delay the tooth eruption; girls tend to accelerate the eruption rate. There were 2 infants, or 13.3% (a boy and a girl), having bilateral asymmetry and violation in tooth eruption sequence in Subgroup III.

In 10 infants (58.8%) of Subgroup IV (average values of body length in combination with obesity) the deciduous tooth eruption started at the interval between 5 and 9 months of child's life. In infants of both genders, there was a tendency for the earlier tooth eruption compared to the normosomes. There were no asymmetry and violation in tooth eruption sequence in Subgroup IV.

Thus, the process of deciduous tooth eruption passes more harmoniously in children of Subgroup I, which have a large body length and harmonious development. The greatest differences in terms of tooth eruption were in the infants of Subgroups II and III. Nevertheless, when children had reached the age of one year it turned out that children from Subgroup II (with a relatively low body weight), on average, kept slowing pace of tooth eruption. In addition, in children of Subgroup II, the highest percentage of bilateral asymmetry and violation in tooth eruption sequence was found among all participants of the study.

It would be advisable to say that the majority (67%) of infants with the delayed tooth eruption have parents born macrosomic, and vice versa, the overwhelming majority (83%) of children with premature teeth eruption had no relatives, which were born macrosomic.

### Conclusions

1. Our study proves to the fact that the peculiarities of the intrauterine period contribute to violations in the morphogenesis of the teeth and tissues surrounding them. Cases of predominant intrauterine obesity, intrauterine increase in body length, or harmonious acceleration of weight gain and increase in body length in the sample of children born with macrosomia have their own peculiarities in the dental status and, in particular, in terms of the deciduous tooth eruption during infancy.

2. Tall, harmoniously developed macrosomic at birth children had a higher percentage of soft tissue anomalies in comparison with normosomes, and at the age of one year, had the indices characterizing the tooth eruption process close to those in the Reference group.

3. Macrosomic boys with increased body length and relatively low body weight at birth had a reliably increased percentage of soft tissue anomalies, girls in this Subgroup had a reliably higher percentage of the delayed tooth eruption cases compared to normosomes of the same gender.

4. Macrosomic girls with intrauterine acceleration in combination with obesity at birth, compared to the normosomes, had a reliably higher percentage of ankyloglossia. The processes of the deciduous tooth eruption in this Subgroup were characterized by the largest variety in values; the girls had a tendency to premature eruption, boys had tendency to its delay.

5. Girls with intrauterine obesity and average body length at birth, compared to normosomes of the same gender, had a higher percentage of ankyloglossia. In infants of this Subgroup, the largest percentage of premature teeth eruption cases was recorded.

Prospects for further research lie in accumulation of the factual material in order to supplement the information about the peculiarities of the macrosomic children dental status, as well as increasing the reliability of the obtained numerical assessments.

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## Реферати

### ПОГЛЯД СТОМАТОЛОГА НА ПРОБЛЕМУ КРУПНОГО ПЛОДУ Гармаш О.В.

Стаття присвячена вивченню особливостей стоматологічного статусу, в тому числі термінів прорізування тимчасових зубів, дітей харківської популяції (м. Харків, Україна), які народилися з макросомією, з урахуванням прискореного внутрішньоутробного росту, внутрішньоутробного ожиріння або збалансованого внутрішньоутробного прискорення росту і збільшення маси тіла. Проведено аналіз стоматологічного статусу у новонароджених і дітей, які народилися з макросомією (основна група) та нормосомією (група порівняння). Обстежено 173 дитини (102 хлопчика та 71 дівчинка), які народилися в 2014 - 2017 роках. Показано, що при народженні стоматологічні порушення були виявлені в обох групах – у 53,8% новонароджених в групі макросомів і у 24,6% новонароджених в групі нормосомів. Аномалії м'яких тканин асоційовані з макросомією плода. У групі макросомів у дітей зі збалансованим внутрішньоутробним збільшенням маси і довжини тіла процес прорізування тимчасових зубів протікає більш гармонійно. Затримку строків прорізування тимчасових зубів мають діти, які народилися з макросомією із великою внутрішньоутробною довжиною тіла і відносно зниженою масою тіла. Діти, які народилися з макросомією із внутрішньоутробним ожирінням та дівчатка, з внутрішньоутробною акселерацією на фоні ожиріння мають тенденцію до прискореного прорізування зубів. У дітей-макросомів із великою внутрішньоутробною довжиною тіла і відносно зниженою масою тіла була виявлена найбільша процентна кількість порушень послідовності та парності прорізування зубів.

**Ключові слова:** макросомія плода, грудний вік, терміни прорізування тимчасових зубів, ротова порожнина.

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### ВЗГЛЯД СТОМАТОЛОГА НА ПРОБЛЕМУ КРУПНОГО ПЛОДА Гармаш О.В.

Стаття посвящена изучению особенностей стоматологического статуса, в том числе сроков прорезывания временных зубов, детей харьковской популяции (г. Харьков, Украина), родившихся с макросомией, с учетом ускоренного внутриутробного роста, внутриутробного ожирения или сбалансированного внутриутробно ускорения роста и увеличения массы тела. Проведен анализ стоматологического статуса у новорожденных и детей, родившихся с макросомией (основная группа), и нормосомией (группа сравнения). Обследовано 173 ребенка (102 мальчика и 71 девочка), родившихся в 2014 - 2017 годах. Показано, что при рождении стоматологические нарушения были обнаружены в обеих группах детей – у 53,8% новорожденных в группе макросомов и у 24,6% новорожденных в группе нормосомов. Исследование показало более высокую распространенность аномалий челюстно-лицевой области у детей, родившихся с макросомией. Аномалии мягких тканей ассоциированы с макросомией плода. В группе макросомов у детей со сбалансированным внутриутробным увеличением массы и длины тела процесс прорезывания временных зубов протекает более гармонично. Задержку сроков прорезывания временных зубов имеют дети с большой внутриутробной длиной тела и относительно сниженной массой тела. Дети с внутриутробным ожирением и девочки с внутриутробной акселерацией на фоне ожирения имеют тенденцию к ускоренному прорезыванию зубов. У детей с большой внутриутробной длиной тела и относительно сниженной массой тела было обнаружено наибольшее процентное количество нарушений последовательности и парности прорезывания зубов.

**Ключевые слова:** макросомия плода, грудной возраст, сроки прорезывания временных зубов, ротовая полость.

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