



RESULTS OF ANTHROPOMETRIC STUDIES OF THE MAXILLOFACIAL REGION OF CHILDREN WITH HYPERTROPHY OF THE ADENOIDS

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Abstract

To assess the anthropometric parameters of the maxillofacial region of children 3-11 years old with different degrees of growth of the pharyngeal tonsils.

Key words: children, pharyngeal amygdala, anthropometry, maxillofacial region.

Introduction

To date, worldwide hypertrophy of the pharyngeal tonsil remains dominant in the problems of pediatric pathologies aged 3-12 years, the occurrence of which is on average 8.5 to 15%. The incidence of this pathology in age periods spreads at different rates, in 2-3% of children aged 3 years, in 6.5% - at the age of 5-6 years, in 12-13% - at the age of 10-12 years and in 25-35% - at the age of 18-20 years [7, pp.20-23].

The most common pathology of childhood is hypertrophy of the adenoids, which causes obstruction of the upper respiratory tract. According to foreign authors, often ill children and suffer from this pathology 32 to 43 times more than their peers. Gender differences in the prevalence of adenoid hypertrophy are of particular importance, in male children the frequency of occurrence of hypertrophy of the pharyngeal amygdala is 2 times lower. [35, p.59-62].

The growth and development of the facial part of the skull are influenced by the mechanisms of oral respiration and scientific disputes are still ongoing about this. [18, p.41-43].

A typical "adenoid face" is characteristic of children with impaired nasal breathing, which is difficult due to large adenoids [38, pp.127-134].

The adenoid face is characterized by the presence of an incompetent upper labial bone, a retion-located hyoid bone, a narrow upper dental arch, retropositional incisors of the lower jaw, an increased height of the anterior surface of the face, a narrow or V-shaped upper jaw, an increased angle of the plane of the lower jaw and a posterior rotating lower jaw compared to healthy control [38, pp.146-149].

In connection with chronic breathing through the mouth, the child begins to form changes in the nasomacillary part of the face. One of the common causes of



deficiencies in sound pronunciation is the pathology of the articular apparatus and dental arches. [5, p.92-96].

Difficulty breathing through the nose, the open position of the potova cavity clearly contributes to a change in the anatomical structures of the ENT organs and, as a result, children develop an oral type of breathing [15, pp.16-19].

Lethargy of the lips contributes to non-physiological speech and deterioration of pronunciation, which is caused by difficulty in nasal breathing and the formation of an "adenoid" type [86, pp.130-131; 143, p.114-123]. As a result, a decrease in the angle of the arch of the upper row of teeth in the upper and lower jaw develops. , is consistent about the occurrence of the pronunciation of irreversible disturbances of sounds [38, p.47-50; 86, p.130-131].

Materials and Methods

To carry out research on this dissertation work, children were involved who are on the "D" register with a diagnosis of "Hypertrophy of the adenoids" in polyclinics and applied for the treatment of this disease to the Department of Otorhinolaryngology and Maxillofacial Surgery of the Bukhara Regional Children's Hospital of Bukhara, Republic of Uzbekistan.

421 children with adenoids (218 boys, 203 girls) were studied. The age of the studied children varied from 3 to 11 years. For a more accurate characterization and comparative assessment of the morphometric parameters of children, 892 children were divided into 3 groups: 1 control group (practically healthy children), 2 group, children with hypertrophy of the pharyngeal tonsils, the latter were divided even by the degree of hypertrophy of the adenoids, 2a (I degree) and 2b (II degree) 2v (III degree)) (Fig.2.1).

Children suffering from hypertrophy of adenoids of grade I adenoids (group 2a - n = 47 children), hypertrophy of adenoids of the II degree (2b-group - n = 182 children), hypertrophy of adenoids of iii degree 2b-group - n = 192 children) (Table 2.2). Further, the sex and age composition of the examined children was distributed by age category. Age periodization of the examined children was carried out by year [Semenova L.K., 1991], according to which children before puberty should be studied by year, and not by age periods.

Anthropometric studies of children were carried out according to the methodological recommendations of Shomirzaev N.Kh. et al. [1998] , Negasheva M.A. [2017]. To measure the anthropometric indicators of the face of the studied children, a tazometer and a measuring tape were used.



Morphometry and the faces of the examined children were studied according to 10 indicators:

- the width between the kuls; the diameter of the lower jaw and; morphological in the yspot of the face; the physiognomic height of the face; the external orbital width a; between the orbital width a; nose height; nose width; the height of the mucous part of the lips; mouth width

Results of the study. A study of facial parameters in 3-year-old male children showed that the zygomatic diameter on average was 81.0 ± 0.11 mm, in females it was equal to an average of 7.70 ± 0.10 cm. The mandibular diameter of boys averaged 5.60 ± 0.10 cm, in girls it was equal to an average of 5.50 ± 0.10 cm. in male children, the morphological height of the face was on average - 16.0 ± 0.10 cm, in the female sex it was on average - 16.5 ± 0.10 cm. Physiognomic height of the face in boys was on average 10.0 ± 0.10 cm, in girls it averaged - 10.99 ± 0.10 cm. In male children, the nose height is on average 27.4 ± 0.70 cm, in females it averaged 26.5 ± 0.50 cm. The width of the nose of boys was equal to an average of 24.7 ± 0.40 cm, and in girls it averaged 21.9 ± 0.30 cm. The external orbital width in male children averaged 83.7 ± 0.30 cm, in females it was on average 79.3 ± 0.20 cm, and the interorbital width on average was 24.3 ± 0.30 cm and 20.7 ± 0.40 cm, respectively. In males, the height of the mucous part of the lips was equal to the average - 14.2 ± 0.30 cm, in the female sex it averaged - $15.7 = 1 \pm 0.30$ cm, the width of the mouth of boys was on average - 34.0 ± 0.50 cm, in girls it was on average - 31.1 ± 0.50 cm

Almost very similar results were obtained in 4-year-old children, in boys the zygomatic diameter was on average 7.80 ± 0.10 cm, and in girls it was equal to an average of 8.30 ± 0.10 cm, also the mandibular diameter in boys is on average - 5.60 ± 0.04 cm, in girls it is on average - 6.10 ± 0.10 cm, respectively. The morphological height of the face in boys is on average - 10.9 ± 0.10 cm, in girls on average - 11.8 ± 0.10 cm. The physiognomic height of the face in boys is on average 16.5 ± 0.10 cm, in girls on average - 16.4 ± 0.10 cm. Nose height in boys on average - 28.9 ± 0.70 cm. in girls on average 3.79 ± 0.11 cm, nose width in boys on average - 25.2 ± 0.40 cm, in girls on average - 22.5 ± 0.30 cm. External orbital width in boys on average - 84.8 ± 0.12 cm, in girls on average - 90.2 ± 0.70 cm Interorbital width in boys on average - 26.1 ± 0.50 cm, in girls on average - 21.9 ± 0.40 cm the height of the mucous part of the lips in boys on average - 16.3 ± 0.30 cm, in girls on average - 14.9 ± 0.20 cm, mouth width in boys on average - 27.6 ± 0.05 cm, in girls on average - $31,4 \pm 0,50$ cm

In 5-year-old male and female children, there were insignificant but reliable increases in size in relation to 3- and 4-year-old boys and girls ($P < 0.05$). Studies have shown





that the zygomatic diameter in male children is on average - 8.10 ± 0.10 cm, in female children an average of 8.30 ± 0.10 cm, the mandibular diameter in male children is an average of 5.80 ± 0.05 cm, in female children, an average of 6.30 ± 0.10 cm. The morphological height of the face in male children is on average 11.3 ± 0.10 cm, in female children on average - 11.9 ± 0.10 cm. The physiognomic height of the face in male children is on average 16.6 ± 0.10 cm, in female children on average - 16.5 ± 0.10 cm. Nose height in male children averages 31.8 ± 0.70 cm, in female children an average of 32.1 ± 0.80 cm. The width of the nose in male children is on average 27.4 ± 0.40 cm, in female children on average - 23.3 ± 0.30 cm. External orbital width in male children on average - 88.7 ± 0.20 cm, in female children on average - 87.9 ± 0.20 cm; interorbital width in male children on average - 30.3 ± 0.70 cm, in female children on average - 23.9 ± 0.11 cm; the height of the mucous part of the lips in male children on average - 18.5 ± 0.30 cm, in female children on average - 16.7 ± 0.30 cm; mouth width in male children on average - 37.1 ± 0.60 cm in female children on average - 34.0 ± 0.60 cm.

In 6-year-old male and female children, both facial parameters were significantly higher than the same indicators of 3- and 4-year-old children ($P < 0.05$) and 1 parameter significantly higher (except for the zygomatic diameter) in relation to 5-year-old boys and girls. The results were as follows: the zygomatic diameter in male children is on average - 8.50 ± 0.10 mm, in female children, on average - 8.6 ± 0.1 mm; the mandibular diameter in male children is on average 7.69 ± 0.10 mm, in female children on average - 6.5 ± 0.1 . The morphological height of the face in male children is on average - 6.20 ± 0.10 mm, in female children on average - 6.7 ± 0.0 mm. The physiognomic height of the face in male children is on average 11.0 ± 0.04 mm, in female children on average - 10.5 ± 0.0 mm. Nose height in male children averages 35.5 ± 0.70 mm, and in female children on average - 36.8 ± 0.8 mm. Nose width in male children on average - 29.7 ± 0.40 mm, in female children on average - 24.2 ± 0.3 mm. External orbital width in male children on average - 89.8 ± 0.30 mm, in female children on average - 91.6 ± 0.2 mm; interorbital width in male children on average - 32.2 ± 0.60 mm, in female children on average - 26.7 ± 0.5 mm; the height of the mucous part of the lips in male children on average - 19.8 ± 0.30 mm, in female children on average - 17.6 ± 0.2 mm; the width of the mouth in male children on average is 39.9 ± 0.70 mm, in female children on average - 38.1 ± 0.5 mm.



Table 3.6.1 Resource requirements Anthropometric indicators of the face of boys and girls 3-7 years old with hypertrophied pharyngeal tonsils

Age Floor	3 – flight		4 – flight		5 – flight		6 – flight		7 - flying	
	M	D	M	D	M	D	M	D	M	D
SD	7,9-8,5 8,1±0,0 2	6,0-9,0 7,7±0,15	7,0-8,5 7,8±0,1	7,3-9,1 8,3±0,1*	7,2-9,1 8,1±0,1*	7,4-9,4 8,3±0,1*	7,6-9,4 8,5±0,1*	7,5-9,2 8,6±0,1*	7,8-9,7 8,6±0,1*	7,8-9,6 8,7±0,1
NCD	4,9-6,6 5,6±0,1	4,3-7,4 5,5±0,1	4,9-6,1 5,6±0,0	4,4-7,1 6,1±0,1*	5,4-6,2 5,8±0,0	5,4-7,3 6,3±0,1*	5,5-7,2 6,2±0,1*	5,6-7,5 6,5±0,1	5,7-7,7 6,7±0,1*	6,2-7,2 6,7±0,0
MVL	15,1-17,3 16,0±0,1	15,8-17,3 16,5±0,1	9,8-11,9 10,9±0,1	10,7-12,9 11,8±0,1	9,9-12,6 11,3±0,1	10,8-13,0 11,9±0,1*	14,9-17,9 16,7±0,1	16,2-17,2 16,7±0,0	10,1-13,4 11,8±0,1	11,2-13,3 12,3±0,1
FVL	9,2-10,7 10,0±0,1	8,7-12,2 10,9±0,1	14,9-18,1 16,5±0,1*	14,8-18,0 16,4±0,1*	15,2-18,0 16,6±0,1	15,2-17,8 16,5±0,1	10,5-11,4 11,0±0,0	9,9-11,0 10,5±0,0	16,4-18,7 17,5±0,1*	16,7-19,3 18,0±0,1
EXT	19,2- 35,6 27,4±0,7	20,7-32,3 26,5±0,5	19,8-38,0 28,9±0,7*	20,7-39,7 30,2±0,8*	22,7-40,8 31,8±0,7*	22,4-41,8 32,1±0,8*	26,1-44,8 35,5±0,7*	26,7-46,9 36,8±0,8 *	26,8-45,7 36,3±0,8*	28,3-49,7 39,0±0,9
SCHN	19,7- 29,7 24,7±0, 4	18,4-25,4 21,9±0,3	19,9-30,4 25,2±0,4*	18,9-26,0 22,5±0,3*	22,3-32,4 27,4±0,4*	19,4-27,2 23,3±0,3*	25,2-34,2 29,7±0,4*	19,9-28,4 24,2±0,3 *	27,1-37,1 32,1±0,4*	21,3-32,3 26,8±0,4*
NGS	80,3- 87,1 83,7±0, 3	76,4-82,1 79,3±0,2	82,1-87,4 84,8±0,2*	81,3-99,0 90,2±0,7	86,2-91,2 88,7±0,2*	85,4-90,4 87,9±0,2	86,4-93,2 89,8±0,3*	89,3-93,8 91,6±0,2*	89,2-99,3 94,3±0,4*	91,0-98,9 95,0±0,3*
MGS	16,7-31,9 24,3±0, 6	15,2-26,2 20,7±0,4	19,8-32,4 26,1±0,5*	16,3-27,4 21,9±0,4*	21,3-39,2 30,3±0,7*	19,4-28,3 23,9±0,4*	24,2-40,1 32,2±0,6*	20,2-33,1 26,7±0,5*	26,7-47,5 37,1±0,8*	24,8-35,2 30,0±0,4*
VG	9,9-18,4 14,2±0,3	11,6-19,7 15,7±0,3	12,4-20,1 16,3±0,3*	11,9-17,8 14,9±0,2	14,6-22,4 18,5±0,3*	12,8-20,5 16,7±0,3*	15,9-23,7 19,8±0,3*	14,6-20,6 17,6±0,2*	19,8-24,6 22,2±0,2*	15,0-23,4 19,2±0,3*
SHG	28,0- 39,9 34,0±0, 5	24,7-37,4 31,1±0,5	27,6-27,6 27,6±0,0	24,8-37,9 31,4±0,5*	29,1-45,0 37,1±0,6*	25,9-42,1 34,0±0,6*	30,7-49,1 39,9±0,7*	31,7-44,4 38,1±0,5*	34,7-50,0 42,4±0,6*	32,0-45,9 39,0±0,6*

Note: *-confidence score (P < 0.05) compared to previous age.

The measurements showed that 7-year-old boys and girls had the same tendency of change as 6-year-old children. Studies of facial parameters in 7-year-old boys and girls have shown that the zygomatic diameter in boys is on average - 8.60±0.10 cm, in girls on average 8.70±0.10 cm, mandibular diameter in boys on average - 6.70±0.10 cm. in girls, the average is 6.70±0.04 cm. Morphological height of the face in boys is on average 11.8±0.10 cm. in girls on average - 12.3±0.10 cm. The physiognomic height of the face in boys is on average 17.6±0.10 cm. in girls on average - 18.0±0.10 cm. Nose height in boys is an average of 36.3±0.80 cm. in girls, an average of 39.0±0.90 cm. The width of the nose in boys on average - 32.1±0.40 cm. in girls on average - 26.8±0.40 cm. The external orbital width in boys on average is 94.3±0.40 cm, in girls on average - 95.0±0.30 cm, the interorbital width in boys on average - 37.1±0.80 cm, in girls on average - 30.0±0.12 cm, the height of the mucous part of the lips in boys on average - 22.2±0.20 cm, in girls on average - 19.2±0.30 cm, mouth width in boys on average - 42.4±0.60 cm in girls on average - 39.0±0.60 sm.



Age Floor	8 – flight		9– flight		10 – flight		11 – flying	
	M	D	M	D	M	D	M	D
SD	7,9-8,5 8,1±0,02	6,0-9,0 7,7±0,15	7,0-8,5 7,8±0,1	7,3-9,1 8,3±0,1*	7,2-9,1 8,1±0,1*	7,4-9,4 8,3±0,1*	7,6-9,4 8,5±0,1*	7,5-9,2 8,6±0,1*
NCD	4,9-6,6 5,6±0,1	4,3-7,4 5,5±0,1	4,9-6,1 5,6±0,0	4,4-7,1 6,1±0,1*	5,4-6,2 5,8±0,0	5,4-7,3 6,3±0,1*	5,5-7,2 6,2±0,1*	5,6-7,5 6,5±0,1
MVL	15,1-17,3 16,0±0,1	15,8-17,3 16,5±0,1	9,8-11,9 10,9±0,1	10,7-12,9 11,8±0,1	9,9-12,6 11,3±0,1	10,8-13,0 11,9±0,1*	14,9-17,9 16,7±0,1	16,2-17,2 16,7±0,0
FVL	9,2-10,7 10,0±0,1	8,7-12,2 10,9±0,1	14,9-18,1 16,5±0,1*	14,8-18,0 16,4±0,1*	15,2-18,0 16,6±0,1	15,2-17,8 16,5±0,1	10,5-11,4 11,0±0,0	9,9-11,0 10,5±0,0
EXT	19,2-35,6 27,4±0,7	20,7-32,3 26,5±0,5	19,8-38,0 28,9±0,7 *	20,7-39,7 30,2±0,8*	22,7-40,8 31,8±0,7*	22,4-41,8 32,1±0,8*	26,1-44,8 35,5±0,7*	26,7-46,9 36,8±0,8*
SCHN	19,7-29,7 24,7±0,4	18,4-25,4 21,9±0,3	19,9-30,4 25,2±0,4 *	18,9-26,0 22,5±0,3*	22,3-32,4 27,4±0,4*	19,4-27,2 23,3±0,3*	25,2-34,2 29,7±0,4*	19,9-28,4 24,2±0,3*
NGS	80,3-87,1 83,7±0,3	76,4-82,1 79,3±0,2	82,1-87,4 84,8±0,2 *	81,3-99,0 90,2±0,7	86,2-91,2 88,7±0,2*	85,4-90,4 87,9±0,2	86,4-93,2 89,8±0,3*	89,3-93,8 91,6±0,2*
MGS	16,7-31,9 24,3±0,6	15,2-26,2 20,7±0,4	19,8-32,4 26,1±0,5*	16,3-27,4 21,9±0,4*	21,3-39,2 30,3±0,7*	19,4-28,3 23,9±0,4*	24,2-40,1 32,2±0,6*	20,2-33,1 26,7±0,5*
VG	9,9-18,4 14,2±0,3	11,6-19,7 15,7±0,3	12,4-20,1 16,3±0,3*	11,9-17,8 14,9±0,2	14,6-22,4 18,5±0,3*	12,8-20,5 16,7±0,3*	15,9-23,7 19,8±0,3*	14,6-20,6 17,6±0,2*
SHG	28,0-39,9 34,0±0,5	24,7-37,4 31,1±0,5	27,6-27,6 27,6±0,0	24,8-37,9 31,4±0,5*	29,1-45,0 37,1±0,6*	25,9-42,1 34,0±0,6*	30,7-49,1 39,9±0,7*	31,7-44,4 38,1±0,5*

The measurements showed that 8-year-old boys and girls had the same tendency of change as 7-year-old children. Studies of facial parameters in 8-year-old boys have shown that the zygomatic diameter in boys is on average - 8.60±0.08 cm, in girls it is on average - 8.8±0.0 cm; mandibular diameter in boys is on average 7.00±0.03 cm, in girls on average - 7.1±0.0 cm. The morphological height of the face in boys on average is 12.3±0.10 cm, in girls on average - 12.4±0.1 cm. Physionomic height of the face in boys on average - 17.6±0.09 cm, in girls on average - 17.8±0.1 cm. Nose height in boys on average 38.7±0.82 cm, in girls on average - 39.0±0.7 cm. Nose width in boys on average - 33.9±0.36 cm, in girls on average - 29.3±0.3 cm. External orbital width in boys on average - 95.3±0.42 cm, in girls on average - 96.1±0.3 cm; interorbital width in boys on average - 38.9±0.80 cm, in girls on average - 40.3±0.2 cm; the height of the mucous part of the lips in boys on average - 22.9±0.20 cm, in girls on average - 21.3±0.5 cm; the width of the mouth in boys on average - 45.5±0.50 cm, in girls on average - 41.1±0.5 cm.

The trend of a gradual increase in facial size continued in 9-year-old healthy children. Studies of facial parameters in 9-year-old male and female children have shown that the cheek diameter in male children is on average - 8.81±0.08 cm, in female children



on average - 8.90 ± 0.04 cm; and the mandibular diameter ranged from 7.6 to 10.0 cm, in male children on average - 7.2 ± 0.03 cm, in female children on average - 7.10 ± 0.04 cm. Morphological height of the face in male children on average - 16.8 ± 0.04 cm, in female children on average - 17.1 ± 0.04 cm. Physionomic height of the face in male children on average - 11.3 ± 0.03 cm, in female children on average - 11.4 ± 0.04 cm. Nose height in male children on average 41.3 ± 0.76 cm, in female children on average 42.2 ± 0.90 cm. Nose width in male children on average - 35.5 ± 0.33 cm, in female children on average - 31.8 ± 0.30 cm. in female children, the average is 99.3 ± 0.20 cm; interorbital width in male children on average - 39.2 ± 0.80 cm, in female children on average - 41.8 ± 0.20 cm; the height of the mucous part of the lips in male children on average - 24.4 ± 0.24 cm, in female children on average - 23.8 ± 0.50 cm; the width of the mouth in male children on average - 52.30 ± 0.04 cm, in female children on average - 44.9 ± 0.40 cm.

The size of the face in 10-year-old boys and girls was almost at the level of 8- and 9-year-old male and female children, the results of which did not differ significantly ($P > 0.05$), reliable changes were noted compared with boys and girls 3-7 years old ($P < 0.05$). In 10-year-old boys, the zygomatic diameter was an average of 8.90 ± 0.04 cm, in girls on average - 9.00 ± 0.03 cm, and the mandibular diameter in boys was on average - 7.21 ± 0.03 cm, in girls on average - 7.29 ± 0.04 cm. Morphological height of the face in boys on average - 12.4 ± 0.1 cm, in girls on average - 12.5 ± 0.09 cm. Physionomic height of the face in boys on average - 17.9 ± 0.08 cm, in girls on average - 18.2 ± 0.09 cm. Nose height in boys on average 43.4 ± 0.76 cm, in girls on average - 44.2 ± 0.91 cm. Nose width in boys on average - 36.1 ± 0.38 cm, in girls on average - 35.1 ± 0.26 cm. The external orbital width in boys on average - 96.8 ± 0.11 cm, in girls on average - 101.4 ± 0.19 cm; interorbital width in boys on average - 40.0 ± 0.08 cm, in girls on average - 44.4 ± 0.24 cm; the height of the mucous part of the lips in boys on average - 26.1 ± 0.30 cm, in girls on average - 26.7 ± 0.52 cm; the width of the mouth in boys on average is 51.8 ± 0.36 cm, in girls the mouth on average is 46.5 ± 0.51 cm.

Facial parameters in 11-year-old boys and girls showed that the zygomatic diameter in male children averaged 8.91 ± 0.08 cm, in female children on average - 9.00 ± 0.04 cm, and the mandibular diameter in male children averaged 7.50 ± 0.07 cm, in female children an average of 7.40 ± 0.04 cm. The morphological height of the face in male children on average is 12.5 ± 0.11 cm, in female children on average - 12.8 ± 0.11 cm. Physionomic height of the face in male children on average - 18.3 ± 0.08 cm, in female children on average - 18.5 ± 0.08 cm. Nose height in male children on average 44.3 ± 0.78 cm, in female children on average 45.3 ± 0.72 cm. Nose width in male children on average - 37.3 ± 0.32 cm, in female children on average - 35.9 ± 0.23 cm.



External orbital width in male children on average - 101.3 ± 0.15 cm, in female children on average - 103.1 ± 0.20 cm; interorbital width in male children on average - 41.3 ± 0.71 cm, in female children on average - 45.9 ± 0.25 cm; the height of the mucous part of the lips in male children on average - 27.9 ± 0.20 cm, in female children on average - 27.4 ± 0.52 cm; the width of the mouth in male children on average - 53.1 ± 0.34 cm, in female children on average - 51.5 ± 0.58 cm.

Thus, the growth rate of the zygomatic diameter of the face of boys was 1.09 times, and in girls it was equal to 1.17 times, and the growth rate of this parameter in males is 2.35% (9 years) and in females it was 7.23% (4 years).

The growth rate of the mandibular diameter of boys increased and chilled by 1.33 times, and in girls it was 1.34 times, the increase was observed in boys at 6 years (7.46%), and in girls was observed at 4 years (9.67%).

The growth rate of morphological and physiological height of the face in boys is 0.78 and 1.84 times, and in girls it was 0.78 and 1.69 times, respectively. The highest growth rates for boys were 4.08 per cent at 8 years of age and 2.18 per cent at 11 years of age compared to the previous age, while the rates for girls were 2.72 per cent and 1.36 per cent at 11 years of age compared to children of the previous age.

In boys, the parameters of the nose (height and width) were taken away and calibrated by 1.62 and 1.51 times, and in girls it was equal to 1.71 and 1.64 times, the growth rate of nose height in males was observed at 9 years (6.53%) and in females at 6 years (7.47%). %).

A comparative estimate of the growth rate of children of both sexes is assessed in Figure 3.6.1.

The growth rate of the outward-orbital width in male children was 1.21 times, and in females it was 1.30 times. The growth rate of the outward-orbital width in boys at 7 years of age is 4.72% and in girls at 5 years of age 3.99% respectively.

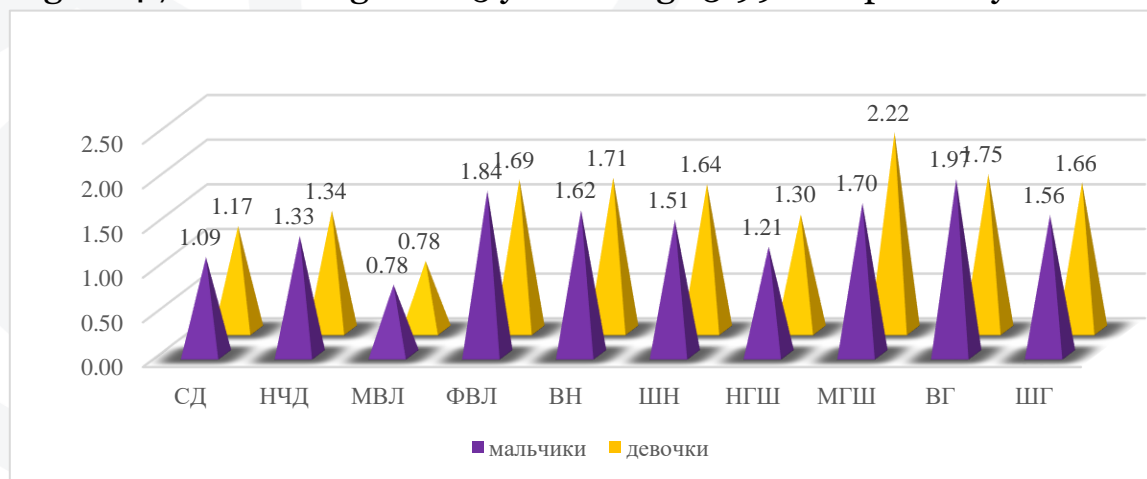


Figure 3.6.1



In boys, the interorbital width increased by 1.70 times, in girls by 2.22 times. In male children, the growth rate at 5 years was 5.91% and in female children at 4 years 8.39% respectively.

The growth rate of males, lip height and width, was 1.97 and 1.56 times, while in females it was 1.75 and 1.66 times, respectively. The growth rates for boys were observed at 10 years (6.69%) and 5 years (7.14%), in girls observed at 8 years (9.65%) and 11 years (9.71%).

Inference. 8. Cephalometric parameters change unevenly with age. In children with adenoids between the zygomatic and lower jaw diameters; the morphological height of the face and the width of the nose; the diameter of the lower jaw and the height of the nose ($g = 0.75-0.90$). This suggests that with all the variety of parameters there is a direct correlation between the violation and development of craniofacial parameters of children with adenoids from the aesthetic beauty of the child's face.

Literature

1. Akbarov, A. N., & Jumaev, A. K. (2019). The choice of materials depending on the topography of partial dentition defects. *ACADEMICIA: An International Multidisciplinary Research Journal*, 9(12), 46-49.
2. Akbarov, A. N., & Jumayev, A. (2020). Hygienic condition of prostheses in patients with partially removable dental prostheses. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 14351-14357.
3. Aliev N.H. Clinical and functional methods of assessment and diagnosis of the pathological condition of the temporomandibular joint // *Тиббиётда янги кун – Бухоро*, 1(33) 2021. Январь-Март. 375-380 бет.
4. Alimova N. P. Anthropometric parameters of the head and maxillofacial region in children with adenoids // *International Engineering Journal for Research & Development*. – 2020. – Т. 5. – №. ISCCPCD. – С. 2-2.
5. Alimova N.P. Anthropometric Parameters and Facial Analysis in Adolescents // *International Research Development and Scientific Excellence in Academic Life /2021/85-86*
6. Baymuradov Ravshan Radjabovich, & Teshayev Shukhrat Jumayevich. (2021). Characteristics of Anatomical Parameters of Rat Testes in Normal Conditions and Under Irradiation in the Age Aspect. *International Journal of Trend in Scientific Research and Development*, March, 106-108.
7. Baymuradov, R. R. (2020). Teshayev Sh. J. Morphological parameters of rat testes in normal and under the influence of chronic radiation disease. *American Journal of Medicine and Medical Sciences*. – 2020. – 10 (1) – P, 9-12.





8. Kamalova, S. M. (2021, January). Changes in the parameters of the physical development of 9-year-old children with scoliosis. In Archive of Conferences (pp. 5-6).
9. Kamalova, S. M., & Teshaev, S. J. Comparative Characteristics of Morphometric Parameters of Children with Scoliosis. *measurements*, 14, 15
10. Khabilov, N. L., & Nusratov, U. G. (2019). Features dental care for patients with type 2 type depending on disturbance of Kidney function. *Asian Journal of Multidimensional Research (AJMR)*, 8(10), 18-24.
11. Muzaffarova, K. S. (2021). Morphometric changes in the parameters of physical development of children with scoliosis. *Academicia: an international multidisciplinary research journal*, 11(2), 359-361.
12. Nigora, A. (2021). Morphofunctional properties of the thymus and changes in the effect of biostimulants in radiation sickness. *Zhamiyatvainnovatsionalar Special Issue-3*, 2181-1415.
13. Nusratov, U. G. (2020). Analysis of oral health and quality of life of groups of patients with type 2 diabetes and chronic kidney disease. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 14385-14393.
14. Zhumaev, A. K. (2020). Partial defects of dental rows results of the questionnaire and clinical assessment of the condition of removable prostheses. *Middle European Scientific Bulletin*, 6, 94-97.
15. Zhumaev, A. K. Of Partial Defects of the Dental Rows of Dynamic Study of the State of the Mucosa of the Oral Cavity in the New Conditions of Functioning. *International Journal on Integrated Education*, 3(12), 61-63.
16. Асадова, Н. (2021). Морфофункциональные свойства тимуса и изменение при лучевой болезни под воздействием биостимулятора. *Общество и инновации*, 2(3/S), 486-493.
17. Асадова, Н.К. (2021). Морфофункциональные изменения тимуса под влиянием различных факторов внешней среды. *Барқарорлик ва Етакчи Тадқиқотлар онлайн илмий журнали*, 1 (6), 762-773.
18. Баймурадов, Р. (2021). Анатомические и физические параметры развития крыс и их семенников после облучения. *Общество и инновации*, 2(2/S), 504-509.
19. Баймурадов, Р. Р. (2021). Морфофункциональное состояние семенников при остром и хроническом радиационного облучении (обзор литературы). *Биология и интегративная медицина*, (4 (51)), 4-23.





20. К. С., О. (2022). Возрастное Развитие Верхнечелюстной Пазухи В Постнатальном Онтогенезе (Обзор Литературы). Центральноазиатский журнал медицинских и естественных наук, 3 (1), 143-149.
21. Кристина Ополовникова, Елена Харибова Сравнительная возрастная характеристика околоносовых пазух в постнатальном онтогенезе (обзор литературы) // ОИИ. 2021. №6/S. URL: <https://cyberleninka.ru/article/n/sravnitelnaya-voznrastnaya-harakteristika-okolonosovyh-pazuh-v-postnatalnom-ontogeneze-obzor-literatury> (дата обращения: 17.09.2022).
22. Kamolov, K. Y. (2022). Morphological features of the lung in alcoholism. *European journal of modern medicine and practice*, 2(3), 12-15.
23. H.Yo. Kamolov. (2022). Morphological features of the lung and bronchial tree in chronic alcoholism . *World Scientific Research Journal*, 2(2), 179–184.
24. Ilxomovna, N. F. (2023). GROUP PLAY THERAPY AS A METHOD OF PRESERVATION MENTAL HEALTH OF THE CHILD. *IQRO JURNALI*, 2(1), 262-267.
25. Izatilloevna, I. M. (2022). Influence of Rhythmic Gymnastics on Morphopometric Parameters of Athletes. *Miasto Przyszłości*, 24, 190–192.
26. Izatilloevna, I. M. (2021, July). Physical development of girls in rhythmic gymnastics. In *Euro-Asia Conferences* (pp. 121-125).
27. Sobirovna, A. Z. (2022). Anthropometric Changes in the Cranial Region in Children of the Second Period of Childhood with Diabetes Mellitus. *Miasto Przyszłości*, 24, 85-87.
28. Шухратовна, А.С. (2021). Медико-психологический подход в разработке ранней диагностики и лечения перекрестного прикуса у детей. *Евразийский научный вестник* , 3 , 31-36.
29. Azimova, S. S., Saidov, A. A., & Ibragimov, F. I. (2021). Medical and Psychological Approach in the Early Diagnosis and Treatment of Cutaneous Bite in Children. *Annals of the Romanian Society for Cell Biology*, 16137-16142.
30. Muxiddinovna, I. M. (2022). Impact of energy drinks and their combination with alcohol to the rats metabolism. *Gospodarka i Innowacje.*, 22, 544-549.
31. Mukhiddinovna, I. M. (2022). Effects of chronic consumption of energy drinks on liver and kidney of experimental rats. *International Journal of Philosophical Studies and Social Sciences*, 2(4), 6-11.
32. Saidova, S. Y. (2021). Revealing echocardiographic and anthropometric changes in children from birth to 3 years old with congenital heart defects. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(9), 1071-1075.



33. Huseynovna, H. G., & Uzbekistan, B. 4. Morphological characteristics of rat's kidney under conditions of experimental severe craniocerebral injury. 18. Comparative Analysis of Phraseological units with the Components of “Head” And “Hand” in the English and Uzbek Languages. Abdivaitova Sevarakhon.
33. Farxodovna, X. M. (2022). Comparative Analysis of the Morphofunctional State of the Fetoplacental System in Obese Pregnant Women. International journal of health systems and medical sciences, 1(5), 27-30.
34. Farxodovna, X. M. (2022). Morphological Features of the Structure of the Feto placental System in Pregnant Women against the Background of Obesity. Research Journal of Trauma and Disability Studies, 1(9), 100-104.
35. Хаятова, М. Ф., & Тешаев, Ш. Ж. (2020). Морфологические особенности строения околоплодных оболочек у беременных на фоне ожирения. Новый день в медицине, (1)100-104.
36. Хаятова, М. Ф. (2022). Осложнения беременности и родов у женщин с ожирением. Barqarorlik va yetakchi tadqiqotlar onlayn ilmiy jurnali, 2(12), 646-651.

