

ANTHROPOMETRIC PARAMETERS OF THE MAXILLOFACIAL REGION OF
CHILDREN WITH ADENOIDS

Alimova Nigina Pulatovna

Bukhara State Medical Institute Uzbekistan

E-mail: alimova.nigina@bsmi.uz

ORCID ID: 0000-0002-9665-226X

Annotation. Under the influence of the environment, the transformation of the development of the organism in growth develops, which reflects physical development. The reflection of the morphometry of physical development is the indicators of anthropometry, physiognometry and data of functional activity. Height, weight and chest girth are the main anthropometric parameters of the physical development of children at certain stages of ontogenesis.

Keywords: anthropomertia, children, adenoid hypertrophy, physical development

Objective: to analyze the parameters of physical development of children 3-11 years old and children with adenoid hypertrophy

Materials and methods: The study was carried out on the basis of the ENT department of the Bukhara Regional Children's Hospital. The number of children before and after adenotomy surgery was 348 (181 boys and 167 girls). Accordingly, in children with adenoid hypertrophy and 6 months after surgery, body length was measured with a height meter, body weight with special medical scales, chest circumference with a measuring tape the state of children (Table 1).

The subject of the study was the anthropometric parameters of the head and face. In conducting scientific research, a set of methods was used, depending on the tasks: anthropometric, morphometric, statistical methods.

Introduction. In the development of a child, the causes of various health deviations are improper nutrition, environmental factors, pathologies, genetics and ethnic characteristics [51, p. 49-54; 74, pp. 257-260; 113, pp. 27-28; 114, c. 845-854].

Changes and generalization of morphofunctional traits depending on the environmental conditions of physical development are indicators of their genetic factors [112, p. 139-145; 117, pp. 275-282].

As a result, the latter is changed in the process of physical development in a positive or negative direction [45, p. 566-567; 84, p. (In Russian) 204-204a].

According to N.N. Rudenko, I.Y. Melnikov (2010), one of the informative criteria of children's health, which characterize this dynamic process, determines the development of the child in physical terms [77, pp. 121-123].

Centile tables are the main and common methods for determining the harmony of children's physical development [20, p. 73–79], which are compiled on the basis of measurements of anthropometric parameters of a large number of children under study and speak of the average values of the parameters of weight, height, chest and head girth, which in turn makes it possible to compare the growth rates and increments of the child's individual development [112, p. 139-145].

There are separate tables for male and female children. Head circumference is evaluated only up to the first year of life of children, and already in preschool and school age, height, body weight and chest circumference are considered important indicators [21, p. 73-79; 26, p. (In Russian) 86-100].

With the help of mathematical formulas for the body mass index method, it is possible to characterize the development of physical condition by the ratio of individual anthropometric parameters [24, p. 165-166; 115, p. (In Russian) 91-101.].

At present, despite the standardization of research, the search for the most informative methods, there is still no accurate assessment of physical development indicators [26, p. 86-100; 54, p. (In Russian) 59-64; 117, p. (In Russian) 275-282; 119, p. (In Russian) 578-583].

The study of the features of health formation helps in the study of the physical development of a large number of children and adolescents [26, p. 86-100].

The results of the main morphometric measurements are used as standards for assessing physical development [110, p. 10-15; 118, c. 280-283].

There are uniform international norms (standards and standards), according to the WHO, that characterize the physical development of children [26, p. 86-100].

Results of the study. The study of facial parameters in 3-year-old male children showed that the zygomatic diameter was on average 81.0 ± 0.11 mm, in females it was on average 7.70 ± 0.10 cm. Mandibular diameter in boys was on average 5.60 ± 0.10 cm, in girls it was on average 5.50 ± 0.10 cm. In male children, the morphological height of the face was on average 16.0 ± 0.10 cm. for females it averaged 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 height of the nose 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 on average - 24.7 ± 0.40 cm. \pm The average external orbital width in male children was 83.7 ± 0.30 cm, in females it was on average 79.3 ± 0.20 cm, and the average interorbital width was 24.3 ± 0.30 cm and 20.7 ± 0.40 cm, respectively. In males, the height of the mucous membrane of the lips was equal on average - 14.2 ± 0.30 cm, in females it was on average - $15.7 = 1 \pm 0.30$ 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 on average - 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. The height of the nose in boys on average is 28.9 ± 0.70 cm, in girls on average 3.79 ± 0.11 cm, the width of the nose in boys on average is 25.2 ± 0.40 cm, in girls on average - 22.5 ± 0.30 cm. The average external orbital width in boys is 84.8 ± 0.12 cm, in girls on average - 90.2 ± 0.70 cm, the interorbital width in boys is on average - 26.1 ± 0.50 cm, in girls on average - 21.9 ± 0.40 cm, the height of the mucous membrane of the lips in boys is on average - 16.3 ± 0.30 cm, in girls on average - 14.9 ± 0.20 cm, the width of the mouth in boys on average - 27.6 ± 0.05 cm, in girls on average - 31.4 ± 0.50 cm

In 5-year-old male and female children, slight but significant increases in size were noted 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 on average 8.30 ± 0.10 cm, the mandibular diameter in male children is on average 5.80 ± 0.05 cm. in female children, the average height is 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. The height of the nose in male children is on average 31.8 ± 0.70 cm, in female children on average 32.1 ± 0.80 cm. The width of the nose in male children on average is 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; the average interorbital width in male children is 30.3 ± 0.70 cm, in female children on average - 23.9 ± 0.11 cm; the height of the mucous membrane of the lips in male children is on average 18.5 ± 0.30 cm, in female children on average - 16.7 ± 0.30 cm; the width of the mouth in male children on average is 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 was significantly higher (except for zygomatic diameter) in the ratio of 5-year-old boys and girls. The obtained results were as follows: 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 - 16.7 ± 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. The height of the nose in male children is on average 35.5 ± 0.70 mm, in female children on average - 36.8 ± 0.8 mm. The width of the nose in male children on average is 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; the average interorbital width in male children is 32.2 ± 0.60 mm, in female children on average 26.7 ± 0.5 mm; the height of the mucous membrane of the lips in male children is 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 is on average 39.9 ± 0.70 mm, in female children on average - 38.1 ± 0.5 mm.

The measurements showed that 7-year-old boys and girls had the same tendency to 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, and the mandibular diameter in boys is on average 6.70 ± 0.10 cm.

in girls on average 6.70±0.04 cm. Morphological height of the face in boys on average is 11.8±0.10 cm, in girls on average - 12.3±0.10 cm.

Table 3.6.1

Anthropometric facial indicators of boys and girls 3-7 years old with hypertrophied pharyngeal tonsils

Age	Floor	SD	NCD	MVL	FVL	EXT	SN	NGS	MGS	VG	ShG
3 – flight	M	7,9-8,5 8,1±0,02	4,9-6,6 5,6±0,1	15,1-17,3 16,0±0,1	9,2-10,7 10,0±0,1	19,2-35,6 27,4±0,7	19,7-29,7 24,7±0,4	80,3-87,1 83,7±0,3	16,7-31,9 24,3±0,6	9,9-18,4 14,2±0,3	28,0-39,9 34,0±0,5
	D	6,0-9,0 7,7±0,15	4,3-7,4 5,5±0,1	15,8-17,3 16,5±0,1	8,7-12,2 10,9±0,1	20,7-32,3 26,5±0,5	18,4-25,4 21,9±0,3	76,4-82,1 79,3±0,2	15,2-26,2 20,7±0,4	11,6-19,7 15,7±0,3	24,7-37,4 31,1±0,5
4 – flight	M	7,0-8,5 7,8±0,1	4,9-6,1 5,6±0,0	9,8-11,9 10,9±0,1	14,9-18,1 16,5±0,1*	19,8-38,0 28,9±0,7*	19,9-30,4 25,2±0,4*	82,1-87,4 84,8±0,2*	19,8-32,4 26,1±0,5*	12,4-20,1 16,3±0,3*	27,6-27,6 27,6±0,0
	D	7,3-9,1 8,3±0,1*	4,4-7,1 6,1±0,1*	10,7-12,9 11,8±0,1	14,8-18,0 16,4±0,1*	20,7-39,7 30,2±0,8*	18,9-26,0 22,5±0,3*	81,3-99,0 90,2±0,7	16,3-27,4 21,9±0,4*	11,9-17,8 14,9±0,2	24,8-37,9 31,4±0,5*
5 – flight	M	7,2-9,1 8,1±0,1*	5,4-6,2 5,8±0,0	9,9-12,6 11,3±0,1	15,2-18,0 16,6±0,1	22,7-40,8 31,8±0,7*	22,3-32,4 27,4±0,4*	86,2-91,2 88,7±0,2*	21,3-39,2 30,3±0,7*	14,6-22,4 18,5±0,3*	29,1-45,0 37,1±0,6*
	D	7,4-9,4 8,3±0,1*	5,4-7,3 6,3±0,1*	10,8-13,0 11,9±0,1*	15,2-17,8 16,5±0,1	22,4-41,8 32,1±0,8*	19,4-27,2 23,3±0,3*	85,4-90,4 87,9±0,2	19,4-28,3 23,9±0,4*	12,8-20,5 16,7±0,3*	25,9-42,1 34,0±0,6*
6 – flight	M	7,6-9,4 8,5±0,1*	5,5-7,2 6,2±0,1*	14,9-17,9 16,7±0,1	10,5-11,4 11,0±0,07	26,1-44,8 35,5±0,7*	25,2-34,2 29,7±0,4*	86,4-93,2 89,8±0,3*	24,2-40,1 32,2±0,6*	15,9-23,7 19,8±0,3*	30,7-49,1 39,9±0,7*
	D	7,5-9,2 8,6±0,1*	5,6-7,5 6,5±0,1	16,2-17,2 16,7±0,0	9,9-11,0 10,5±0,02	26,7-46,9 36,8±0,8*	19,9-28,4 24,2±0,3*	89,3-93,8 91,6±0,2*	20,2-33,1 26,7±0,5*	14,6-20,6 17,6±0,2*	31,7-44,4 38,1±0,5*
7 – flight	M	7,8-9,7 8,6±0,1*	5,7-7,7 6,7±0,1*	10,1-13,4 11,8±0,1	16,4-18,7 17,5±0,1*	26,8-45,7 36,3±0,8*	27,1-37,1 32,1±0,4*	89,2-99,3 94,3±0,4*	26,7-47,5 37,1±0,8*	19,8-24,6 22,2±0,2*	34,7-50,0 42,4±0,6*
	D	7,8-9,6 8,7±0,1	6,2-7,2 6,7±0,0	11,2-13,3 12,3±0,1	16,7-19,3 18,0±0,1	28,3-49,7 39,0±0,9	21,3-32,3 26,8±0,4*	91,0-98,9 95,0±0,3*	24,8-35,2 30,0±0,4*	15,0-23,4 19,2±0,3*	32,0-45,9 39,0±0,6*

Note: * is the confidence index (P <0.05) compared to the previous age.

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. The height of the nose in boys is on average 36.3±0.80 cm, in girls on average 39.0±0.90 cm. The width of the nose in boys is on average 32.1±0.40 cm, in girls on average - 26.8±0.40 cm. External orbital width in boys on average is 94.3±0.40 cm, in girls on average - 95.0±0.30 cm, 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 membrane of the lips in boys on average - 22.2±0.20 cm, for girls on average - 19.2±0.30 cm, the width of the mouth for boys on average - 42.4±0.60 cm, for girls - 39.0±0.60 cm on average.

The measurements showed that 8-year-old boys and girls had the same tendency to 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; The 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 is on average 12.3±0.10 cm, in girls on average - 12.4±0.1 cm. The physiognomic height of the face in boys is on average - 17.6±0.09 cm, in girls on average - 17.8±0.1 cm. The height of the nose in boys is on average 38.7±0.82 cm, in girls on average - 39.0±0.7 cm. The width of the nose in boys on average is 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; the average interorbital width in boys is 38.9±0.80 cm, in girls on average - 40.3±0.2 cm; the height of the mucous membrane of the lips in boys is on average 22.9±0.20 cm, in girls on average - 21.3±0.5 cm; the width of the mouth in boys is on average 45.5±0.50 cm, in girls on average - 41.1±0.5 cm. Studies of facial parameters in 9-

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year-old male and female children have shown that the zygomatic 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 varied 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. Physiognomic 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 is 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. External orbital width in male children on average - 99.5 ± 0.13 cm. in female children on average - 99.3 ± 0.20 cm; the average interorbital width in male children is 39.2 ± 0.80 cm, in female children on average - 41.8 ± 0.20 cm; the height of the mucous membrane of the lips in male children is 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 is on average 52.30 ± 0.04 cm, in female children on average - 44.9 ± 0.40 cm.

The face size of 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 ($P > 0.05$), significant changes were noted compared to boys and girls of 3-7 years old ($P < 0.05$). In 10-year-old boys, the zygomatic diameter averaged 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. Physiognomic height of the face in boys is on average - 17.9 ± 0.08 cm, in girls on average - 18.2 ± 0.09 cm. Nose height in boys is on average 43.4 ± 0.76 cm. in girls on average - 44.2 ± 0.91 cm. The width of the nose in boys on average is 36.1 ± 0.38 cm, in girls on average - 35.1 ± 0.26 cm.

The average external orbital width in boys is 96.8 ± 0.11 cm, in girls on average - 101.4 ± 0.19 cm; the average interorbital width in boys is 40.0 ± 0.08 cm, in girls on average 44.4 ± 0.24 cm; mucosal height

Table 3.6.2

Anthropometric facial indicators of boys and girls aged 8-11 years with hypertrophied pharyngeal tonsils

Age \ Floor	8 – flight		9-flight		10 – flight		11 – flight	
	M	D	M	D	M	D	M	D
SD	7,9-8,5	6,0-9,0	7,0-8,5	7,3-9,1	7,2-9,1	7,4-9,4	7,6-9,4	7,5-9,2
	$8,1 \pm 0,02$	$7,7 \pm 0,15$	$7,8 \pm 0,1$	$8,3 \pm 0,1$ *	$8,1 \pm 0,1$ *	$8,3 \pm 0,1$ *	$8,5 \pm 0,1$ *	$8,6 \pm 0,1$ *
NCD	4,9-6,6	4,3-7,4 $5,5 \pm 0,1$	4,9-6,1	4,4-7,1	5,4-6,2	5,4-7,3	5,5-7,2	5,6-7,5
	$5,6 \pm 0,1$		$5,6 \pm 0,0$	$6,1 \pm 0,1$ *	$5,8 \pm 0,0$	$6,3 \pm 0,1$ *	$6,2 \pm 0,1$ *	$6,5 \pm 0,1$

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*
SN	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*

Note: *-confidence index (P <0.05) compared to the previous age

parts 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 is on average 51.8±0.36 cm, in girls the average mouth 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 on average 7.40 ± 0.04 cm. The morphological height of the face in male children is on average 12.5 ± 0.11 cm, in female children on average - 12.8 ± 0.11 cm. The physiognomic height of the face in male children is on average - 18.3 ± 0.08 cm, in female children on average - 18.5 ± 0.08 cm. The height of the nose in male children is on average 44.3 ± 0.78 cm, in female children on average 45.3 ± 0.72 cm. The width of the nose in male children is 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; the average interorbital width in male children is 41.3 ± 0.71 cm, in female children on average - 45.9 ± 0.25 cm; the height of the mucous membrane of the lips in male children is 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 is 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 1.17 times, and the growth rate of this parameter in males was 2.35% (9 years) and in females was 7.23% (4 years).

The growth rate of the mandibular diameter of boys increased 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 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 those of 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) increased by 1.62 and 1.51 times, and in girls it was equal to 1.71 and 1.64 times, the rate of increase in the height of the nose in males was observed at 9 years (6.53%) and in females at 6 years (7.47%). The rate of growth in the width of the nose was observed in male children at 4 years (8.04%) and in females at 6 years (9.89%). A comparative assessment of the growth rate of children of both sexes is estimated in Figure 3.6.1.

Figure 3.6

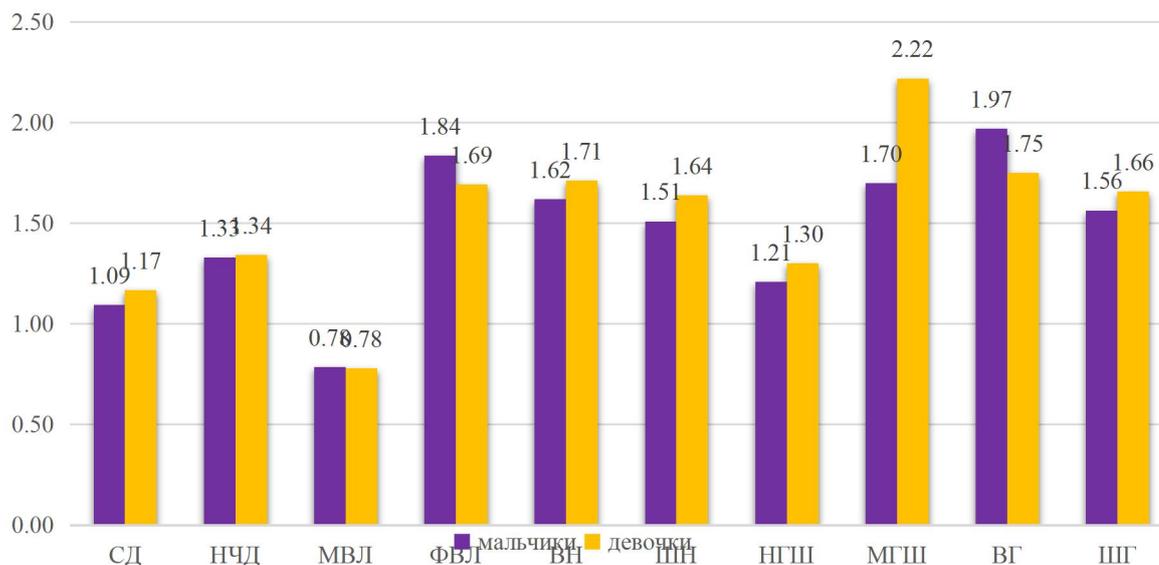


Figure 3.6. Comparative assessment of facial parameters in children with adenoids in the sexual aspect

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

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

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