Original Article

Correlation Of The Parameters Of The Middle Part Of The Face Of Children With Congenital Cleft Lip And Palate After Surgical Operations

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Abstract

Annotation:

Purpose of the study: To study the correlation of the middle part of the face with congenital cleft lip and palate after surgical procedures.

Material and research methods. 630 children of the I and II periods of childhood with CCLP at the age of 3 to 12 years were examined. Among them, 390 (61.9%) boys, 240 (38.1%) girls who underwent surgical manipulation depending on the severity of the anomaly of the lip and palate in the Department of Maxillofacial Surgery at the Bukhara Children's Multidisciplinary Medical Center in Bukhara in the period from 2009 by 2018.

Results and discussion. To solve this goal, a morphometric study was carried out and morphometric parameters of the craniofacial region of children of the I and II period of childhood with CCLP were obtained, clinical and anthropometric methods were used, followed by statistical processing of the data. When performing this work, the methodology of anthropometric studies of children was used on the methodological recommendation of N. Kh. Shomirzaev, S. A. Ten and S. I. Tukhtanazorova (1998).

Conclusion. In order to increase the efficiency of the physical development of special children, that is, children with CCLP, it is necessary after surgical interventions to conduct a continuous anthropometric measurement of the craniofacial region of children by communicating with specialists as pediatricians, therapists, orthopedists dentists and maxillofacial surgeons. Only in this case can the desired result be achieved in accordance with the principle of the golden ratio.

Keywords: physical development, child, anthropometry, craniofacial region, congenital cleft lip and palate.

Introduction: Congenital cleft lips and palates, better known as "cleft lip" and "cleft mouth," are one of the severe and quite common malformations of the maxillofacial region, ranking 3rd and 4th among malformations. According to the latest statistics, the trend of an increase in the number of children with such pathologies still persists, and is one child per 800-1000 births. Cleft, lip and palate can also be accompanied by other malformations and be part of hereditary syndromes.

In children with cleft labia, anatomical disorders of the middle zone of the face are observed, which need surgical correction: cleavage of the lip into two or three (with bilateral cleavages) fragments, deformity of the cartilaginous nasal region, expressed in varying degrees, vicious attachment and impaired function of the bundles of the orbicularis muscle of the mouth, defect of the alveolar process of the maxillae**.** In crevices of the palate, there is a communication of the oral cavity with the nasal cavity through a tissue defect along the midline of the palate, different from the normal arrangement and attachment of the muscles of the soft palate, expansion of the middle pharynx and shortening of the soft palate. This leads to disorders of sucking and swallowing function, external breathing and speech, malocclusion, deformation of the maxillae.

Analysis of the literature data of recent years shows that little attention has been paid to the study of the postoperative change in the craniofacial region of children of the 1st period of childhood with CCLP, there are scattered information regarding the treatment results of patients with different types of cleft operated on at different age periods, however, we found no work characterizing the results of therapy in relation to one type of cleft, when surgery would be carried out at different age periods. Comparative analysis of treatment outcomes by most authors is done with an emphasis on any one diagnostic criterion. Static or dynamic analysis of cephalograms is usually used with an assessment of the growth and development of the facial skeleton. Based on the above, we have delivered the following.

The purpose of the study: Will study the correlations of the middle part of the face with congenital cleft lips and palate after surgical manipulations.

Research material and methods. 630 children of the I and II period of childhood with CCLP aged 3 years to 12 years were examined. Among them, 390 (61.9%) boys, 240 (38.1%) girls who underwent surgical manipulation depending on the severity of the lip and palate abnormality in the department of maxillofacial surgery at the Bukhara Children's Multidisciplinary Medical Center in Bukhara from 2009 to 2018.

All study children with CCLP were divided into 3 groups, depending on the type of anomaly.

1 group is the main group, children of the first and second periods of childhood with bilateral congenital cleft lip and palate (BCCLP) are 70 children, of which 44 (63%) boys and 26 (37%) girls.

2 group - control group, children of the I and II periods of childhood with congenital cleft of the hard and soft palate (CCHSP) - 318 children, of which 189 (59%) boys and 129 (41%) girls.

3 group - a comparative group, children of the I and II periods of childhood, unilateral congenital cleft lip and palate (UCCLP) - 241 children, of which 156 (65%) boys and 85 (35%) girls.

The distribution of children by place of residence showed the following result: living in rural areas - 301 (48%) children and in the city 329 (52%) children.

Of the 630 children with CCLP, 314 children of the first period of childhood aged 3 to 7 years. Among them are 220 (70%) boys, 94 (30%) girls.

To solve this goal, a morphometric study was carried out and morphometric parameters of the craniofacial region of children of the I and II period of childhood with CCLP were obtained, clinical and anthropometric methods were used, followed by statistical processing of the data.

When performing this work, the methodology of anthropometric studies of children was used on the methodological recommendation of N. Kh. Shomirzaev, S. A. Ten and S. I. Tukhtanazorova (1998).

Depending on the measurement, all children were grouped by the following signs: group I - the main (n = 70) children with BCCLP, group II - the control, children with CCHSP (n = 318) and group III - the comparative, it was made up of children with UCCLP (n = 241) of the I and II childhood period.

The results obtained by us show that among the total number of the studied contingent, 367 children with CCLP were students of secondary schools, 240 children with CCLP were pupils of preschool institutions (PSI) and 4 children with CCLP were pupils of children's home (ChH) of the city of Bukhara Uzbekistan.

Results and discussion. In total, 630 children with congenital cleft lip and palate (independent of the type of cleft) took part in the study. In our study, the number of boys with CCLP 390 (62%) prevailed over the number of girls with similar diagnoses 240 (38%).

Half of the children studied were with CCHSP (50%). One-sided CCLP occurred in 38% of cases and two-sided CCLP occurred in 11% of cases.

We evaluated the craniofacial region. The results we obtained on the study of anthropometric facial parameters of boys and girls 3-12 years old with CCLP showed that facial sizes gradually increased in close relation with increasing age of children. Significant differences in facial performance were observed mainly from 5 years of age in boys and from 7 years of age in girls compared to 3 years of age, while significant differences were clearly observed from 6-7 years of age. The data of 10-12-year-old children with CCLP were very different and different; this is especially noticeable in terms of the face of the studied contingent.

Craniofacial parameters were very different in 1 group of children with BCCLP, starting from the age of 6-7 years; the study showed that the morphological and physionomic height of the face in children with BCCLP is less than in children with BCCLP and CCHSP. The angles of the mandible are sharper in 1 group of children on both sides of both sexes. This indicates a lag in the formation of the maxillae, since due to the surgical manipulations carried out

as cheilorinoplasty and uranoplasty, there is a postoperative scar in the upper lip area, there is a possibility that children with CCLP due to the post-operative scars on the lip and palate, tissues in this area do not develop as much as possible, which prevents the growth of the maxillae. With underdevelopment of the maxillae, the mandible rises as much as possible in the chin, which leads to an acute angle of the mandible depending on the side of the congenital anomaly.

In addition, in all groups of children with CCLP and both sexes, the angle of the mandible on the affected side is sharper than the unaffected side. This parameter indicates a stronger physical development of the unaffected side of the mandible compared to the affected side of the mandible. The rate of development of parts of the face was not similar compared to the age, sex and study groups of the children studied.

Conclusion. 1. In children with CCLP, the morphometric parameters of the craniofacial region vary depending on sex and age, but depending on the type of CCLP, the morphometric parameters of the craniofacial region were different. Up to 5 years old in boys and up to 7 years old in girls, there were no differences in the craniofacial region parameters of children with CCLP, significant differences in the craniofacial region were observed mainly from 5 years old in boys and from 7 years old in girls compared to 3 years old, while significant differences were clearly observed from 6-7 years old. The data of 10-12-year-old children with CCLP were very different and different; this is especially noticeable in terms of the face of the studied contingent.

2. Morphometric studies of the craniofacial region of children with CCLP showed that the larger the cleft, the greater the deviations in the morphometric parameters of the craniofacial region in children with CCLP. But isolated crevices also negatively affect the physical development of the child, depending on the side of the crevice, changes in the morphometric parameters of the craniofacial region can be observed on both sides.

3**.** Operative manipulations chosen to close the cleft on the lip and palate help, eliminate these cosmetic defects, and restore the aesthetics of the face, but postoperative scars (iatrogenic factor) in the sequence form fibrous adhesions that do not allow the bone tissue of the maxillae to grow freely, this also leads to a change in the shape of the mandible.

4. In order to increase the efficiency of the physical development of special children, that is, children with CCLP, it is necessary after surgical interventions to conduct a continuous anthropometric measurement of the craniofacial region of children by communicating with specialists as pediatricians, therapists, orthopedists dentists and maxillofacial surgeons. Only in this case can the desired result be achieved in accordance with the principle of the golden ratio

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