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Research Article

EVALUATION OF THE RESULTS OF PRIMARY CHEILOPLASTY IN CHILDREN WITH CONGENITAL BILATERAL CLEFT OF UPPER LIP AND PALATE

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ABSTRACT

Comparative estimation of the results of primary labioplasty has been held on enow lesser clinical material; statements to usage of each method inclusive of anatomic and aesthetic results have been defined. Clinical- anatomic changes have been established after various methods of primary labioplasty which allowed proving the choice of operation method inclusive of the degree and form of rhegma.

KEYWORDS

Assessment, cheiloplasty, cleft, lips, palate.

INTRODUCTION

Congenital cleft lip and palate (CCLP) is a severe malformation of the dental system, which is characterized by pronounced structural and functional disorders. Perhaps there is no other congenital deformity that significantly changes the shape of the face and leads to such significant anatomical and functional impairments [1,2,5,6,7,8,9,10,11].

Surgical treatment of congenital bilateral clefts occupies a special place due to its relevance, variety of surgical methods and many unresolved issues. Among

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the wide variety of methods for primary repair of congenital cleft lip and palate, there is currently no preference for any one technique. The use of new methods of surgical treatment is not always rational and does not make it possible to fully rehabilitate a child with this pathology [3,4].

An analysis of the literature in recent years shows that today more than a hundred types of cheiloplasty have been developed and used. Each of these methods has its own positive and negative aspects, which allows surgeons to individualize the surgical approach in each specific case.

In the domestic and foreign literature, insufficient attention has been paid to the issue of primary cheiloplasty with the choice of the most optimal methods, taking into account the degree of underdevelopment of the soft tissues of the median fragment.

Despite a number of studies on improving the methods of primary cheiloplasty, the issue of comparative analysis of methods for eliminating congenital bilateral clefts of the upper lip and palate has not received sufficient attention. The relevance of the problem posed and its insufficient coverage in the scientific literature was the main motive for carrying out this work.

The purpose of the study is to conduct a comparative analysis of the long-term results of primary cheiloplasty using the Limberg, Millard and Obukhova-Tennyson methods, to determine the indications for their use, taking into account the degree of underdevelopment of the soft tissues of the median fragment.

MATERIAL AND RESEARCH METHODS

The material for our study was the results of surgical treatment of children with congenital bilateral cleft lip and palate. During the period from 2021 to 2023, 31 patients with congenital bilateral cleft lip and palate, aged from 6 months to 6 years, were observed and treated in the "Chinar" Private Hospital. Of these, 19 were boys and 12 were girls. Of the total number of children with congenital cleft lip and palate, 8 children were operated on using the Limberg method. Thirteen children with cleft lip and palate were operated on using the Millard method. The number of patients who underwent cheiloplasty using the Obukhova-Tennyson method was 10 children.

Using the anthropometric method, a comparative analysis of the results of primary cheiloplasty using the Limberg, Obukhova Tennyson and Millard methods was carried out 1-2 years after the intervention. To do this, measurements were taken on the nose and upper lip, taking as a basis the methods of anthropometric research by R.D. Novoselov (1978), T.V. Sharova, L.P. Gerasimova (1991), S. Mahn (1980).

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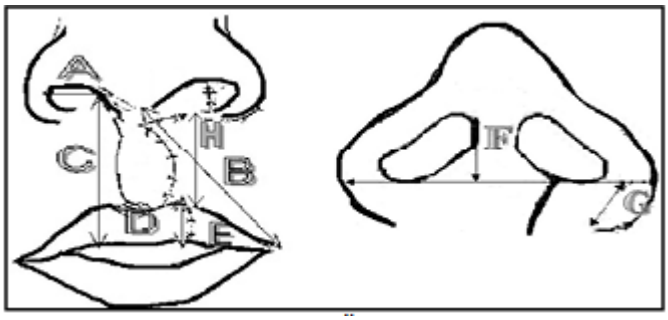

Figure. Lip and nose measurement chart.

Lip measurements: A/A1 - width of the vestibule of the nose, B/B1 - distance from the corner of the mouth to the middle of the columella on both sides, C/C1 - height from the lower edge of the upper lip to the entrance to the vestibule of the nose, D/D1 - distance between the protruding points of the Cupid's line, E/E1 - the distance between the highest point of the Cupid's line to the lower edge of the upper lip on each side. Lip height, H/H1 height of the skin part of the upper lip, difference between parameters C and E.

Nose measurements: F/F1 - columella length on both sides, G/G1 - philtrum length on both sides (figure).

The results of anthropometric studies in operated patients using three methods were compared with control average age indicators in children.

The resulting digital indicators were assessed on a 6-point scale: 1-2 points - unsatisfactory result - the difference in the comparative assessment of any parameter between operated patients and healthy control children exceeds 4 mm; 3-4 points - satisfactory result; the difference in the comparative assessment of any parameter between operated patients and healthy control children is 3-4 mm; 5-6 points - a good result. The difference in comparative assessment is 1-2 mm.

In addition, the results of cheiloplasty were assessed based on a survey of parents on a 5-point scale.

RESEARCH RESULTS AND DISCUSSION

A photometric study showed that the width of the nasal vestibule (A) in children operated on by the Obukhova-Tennison method was 1.1±0.01 cm, in the control group 0.71±0.02 cm. Comparing the results obtained, we obtained a difference in average at 3.9 mm. According to the point system, this amounted to 3-4 points - a satisfactory result. Analyzing the data obtained during primary cheiloplasty according to Millard D.R. noted: in operated children 0.64±0.01 cm, in children of the control group 0.71±0.02 cm. The width of the nasal vestibule had a difference of 0.7 mm, 5-6 points - a good result. The width of the nasal vestibule in children operated on by the Limberg method was 0.66±0.02 cm, in the control group it was 0.71±0.02 cm. Comparing the results obtained, we

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found a difference of 0.5 mm on average. According to the point system, this amounted to 5-6 points - a good result.

Distance from the corner of the mouth to the middle of the base of the columella on both sides (B). According to this indicator, during the Obukhova-Tennyson operation, the difference in the control and operated groups was 0.6 mm, 5-6 points. This is a good result. With cheiloplasty using the Millard and Limberg methods, almost identical parameters were noted in both the control and operated groups. The result can be regarded as good.

Height from the lower edge of the upper lip to the entrance to the vestibule of the nose (C). According to the Obukhova-Tennyson method, in operated children this figure was 2.61 ± 0.02 cm, in children of the control group - 2.2 ± 0.02 cm. The difference between them was 4.1mm. – unsatisfactory result, 1-2 points.

As for this parameter according to Millard D.R., in the operated children it was 1.9 ± 0.02 cm, in the control group - 2.2 ± 0.02 cm. The difference between them was 3mm, a satisfactory result. Using the Limberg method, this indicator in operated children was 1.85 ± 0.02 cm, in healthy children - 2.2 ± 0.02 cm. The difference was 3.5 mm, 5-6 points, a satisfactory result.

The distance between the vertical points of the Cupid's line (D).

The data obtained from both operated and healthy children using all three methods did not reveal any differences. According to the Obukhova-Tennison method, this figure was 0.66 ± 0.01 cm. both in the control and after cheiloplasty. For cheiloplasty using the Millard D.R. method. and Limberg this distance was 0.66±0.01*cm in the control, after surgery 0.65±0.01 cm, the difference was 0.1mm, 5-6 points is a good result.

Height of the red border at the projecting points (E). With cheiloplasty according to Obukhova-Tennison, this indicator in operated children was 0.63±0.02 cm, in control children - 0.65±0.04 cm.

The difference was up to 1mm, 5-6 points, a good result. With cheiloplasty according to Millard D.R. this distance was 1.03±0.02 cm, in the control - 0.65±0.04 cm. The difference was 3.8 mm, 3-4 points - a satisfactory result. Using the Limberg method, this figure in operated children was 0.95±0.03 cm and 0.65±0.02 cm. in healthy children. The difference was 0.3mm, 5-6 points - a good result.

Height of the skin part of the nasal septum (F). Significant differences were found after cheiloplasty using the Obukhova-Tennyson method. The data was 0.31±0.01 cm. in operated patients and 0.53±0.01 cm. in control children. The difference was 2.2mm. According to the method of Millard D.R. 0.44±0.01cm. in operated children and 0.53±0.01 cm. in healthy people, 5-6

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points, a good result. According to the Limberg method, in the operated group this distance was 0.46±0.02 cm, in the control group it was 0.53±0.01 cm, 5-6 points, a good result.

Retraction of the base of the nasal wing, (G). According to the Obukhova-Tennyson method, this indicator in the operated children was 0.68±0.01 cm, in the control group - 0.42±0.02 cm. The difference was 2.6 mm, 3-4 points - a satisfactory result. For cheiloplasty using the Millard D.R. method. this distance was 0.40±0.01 cm. and 0.42±0.02cm. in control children. The difference was up to 1mm, a good result. During surgery using the Limberg method, this figure was 0.41 ± 0.01 cm and 0.42 ± 0.01 cm in the control. A difference of 0.1 mm is a good result.

Height of the skin part of the upper lip (H). According to this indicator, during the Obukhova-Tennyson operation, the difference in the control and operated groups was 2.6 mm, 3-4 points. Can be regarded as a satisfactory result. With cheiloplasty using the Millard method, this figure in the operated children was 0.87 ± 0.01 cm, in the control group it was 1.45 ± 0.02 cm. The difference is 5.8mm, the result is unsatisfactory. With the Limberg method, this distance in the operated children was 0.91±0.02 cm, in the control group it was 1.45±0.02 cm. The difference was 5.4 mm. The result can be regarded as unsatisfactory.

Results of a subjective survey of parents: after surgical treatment using the Millard method: the scar is not noticeable in 10 (76.9%) patients, the scar is noticeable in 3 (23.1%), the red border is continuous in 9 (69.2%)), the red border is discontinuous - in 4 (30.8%), the height of the upper lip is restored - in 8 (61.5%), the height of the upper lip is not restored - in 5 (38.5%), the height of the upper lip is symmetrical on both sides - in 6 (46.1%), the height of the upper lip is not symmetrical on both sides - in 7 (53.9%), there is no flattening of the wing of the nose - in 11 (84.6%), the wing of the nose is flattened - in 2 (15.4%).

After surgical treatment using the Tennyson-Obukhova method: the scar is not noticeable in 3 (30.0%) patients, the scar is noticeable in 7 (70.0%), the red border is continuous in 8 (80.0%), the red border is discontinuous – in 2 (20.0%), the height of the upper lip is restored – in 9 (90.0%), the height of the upper lip is not restored – in 1 (10.0%), the height of the upper lip is symmetrical on both sides – in 6 (60.0%), the height of the upper lip is not symmetrical on both sides - in 4 (40.0%), there is no flattening of the wing of the nose - in 2 (20.0%), the wing of the nose is flattened - in 8 (80.0%).

After surgery using the Limberg method: the scar is not noticeable in 5 (62.5%) patients, the scar is noticeable in 3 (37.5%), the red border is continuous in 5 (62.5%); the red border is discontinuous – in 3 (37.5%), the height of the upper lip is restored – in 4 (50.0%), the

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height of the upper lip is not restored – in 4 (50.0%), the height of the upper lip is symmetrical on both sides – in 3 (37.5%), the height of the upper lip is not symmetrical on both sides - in 5 (62.5%), there is no flattening of the wing of the nose - in 6 (75.0%), the wing of the nose is flattened - in 2 (25, 0%).

Thus, the linear Millard and Limberg methods and the Obukhova-Tennyson technique used in primary cheiloplasty, with the correct choice of indications for their implementation, can successfully restore the anatomical and functional integrity of the defect area. When choosing a technique for bilateral primary cheiloplasty, the determining factor is the degree of underdevelopment of the soft tissues of the median fragment.

When the soft tissues of the median fragment are underdeveloped by 2/3 of its height, the most appropriate method is to move a triangular flap according to Obukhova-Tennyson, which gives the best results taking into account the restoration of the correct Cupid's bow and the anatomical integrity of the upper lip with normalization of the mobility of the orbicularis ores muscle.

In children with congenital bilateral cleft lip and palate with underdevelopment of the soft tissues of the median fragment at 1/3 or 1/2 of its height, it is advisable to use the linear methods of Millard and Limberg. In this case, less noticeable scars are observed and the tissue of the upper lip is preserved as much as possible, which is the key to the successful completion of final reconstructive surgery in adult patients.

REFERENCES

1. Amanullaev R.A., Kurbankhodzhaev Sh.N., Shoyusupova M.T., Akbarov A.A. The influence of congenital cleft lip and palate on the overall development of the child. // Bulletin of the Tashkent Medical Academy. - 2013. - No. 4. P. 46-48.
2. Granchuk G.N. Dimensions of the dentition and facial skeleton in adults with dentoalveolar deformities caused by congenital nonunion in the maxillofacial region. Dentistry. - 1987. - T.66, No. 2. P.63-66.
3. Kozin I.A. Aesthetic surgery for congenital facial clefts. – M., 1996.
4. Mamedov Ad.A. Algorithm for the rehabilitation of children with congenital cleft lip and palate / Ad.A. Mamedov // Congenital and hereditary pathology of the head, face and neck in children: current issues of complex treatment. - M.: MGMSU, 2012. P. 151-155
5. Makhkamov E.U., Murtazaev S.M., Komarin A.S. and others. Absorption in the intestines in children with congenital clefts of the upper lip and palate. //Dentistry. – 1987. – T. 66. – No. 4. – P. 38-45.
6. Medvedev M.B. Perinatal outcomes in congenital malformations. // Ultrasound diagnostics in

International Journal of Medical Sciences And Clinical Research (ISSN – 2771-2265)
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SJIF IMPACT FACTOR (2021: 5. 694) (2022: 5. 893) (2023: 6. 184)
OCLC – 1121105677
Publisher: Oscar Publishing Services

obstetrics, gynecology and pediatrics, - 2001. No. 4. - P. 260-267.

7. Baskaran M, Packiaraj I, Arularasan SG, Divakar TK. Cleft rhinoplasty. - J Pharm Bioallied Sci. 2015 Aug;7 (Suppl 2): p.691-4.
8. Flinn W. The cleft lip nose: an update //Facial Plast Surg., 2006, 9,4,241-268.
9. Hugentobler H. Wave – line procedure in the repair of cleft lip. //J. max.-fac., 1, 2006, 198-202.
10. Recaman M. Cleft lip and palate. In McCarthy J.G. (ed) //Plastic Surgery. Volume 4: Cleft Lip and Palate and Craniofatial Anomalies. Philadelphia: WB Saunders, 2006.
11. Slifer K.L. Lip Adhesion //J. Facial Plastic surgery. 1993, Vol.9, N. 3, P. 188-195.

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