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SURGICAL TACTICS TO ELIMINATE COMPLEX VARIANTS OF CONGENITAL CLEFT PALATE

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ABOUT ARTICLE

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Abstract: The scientific justification and practice of surgical methods of correction of congenital cleft lip and palate are widely presented in the specialized literature concerning various types of lesions of the maxillofacial region [7, 13, 20, 21, 23-25]. At the same time, the results of international and domestic experience and scientific research on these issues contribute to the development and implementation of new methods for correcting facial and jaw deformities, continuous improvement of surgical and rehabilitation techniques, the application of innovations in the pediatric healthcare system itself and the accumulation of experience in specialized areas of practice [1, 4, 17 , 19, 20, 23, 24]. In addition, the use of "additional materials" - types of implants (for example, plastic, biologically inert metal), which are surgically implanted into the destroyed structures of the maxillofacial region and meet the requirements of safety, indifference to surrounding tissues, targeted regeneration and the formation of adequate support for the restoration of the upper jaw, including using existing "classic" techniques, detailed and updated. classic" techniques, detailed and updated [5, 6, 8, 9, 15]. In most cases, the use of new surgical techniques of zygoplasty and ureteroplasty requires comprehensive medical and rehabilitation measures with the participation of highly qualified specialists of

various profiles, however, it should be emphasized that the main stage of the algorithm of comprehensive care is the operation must be performed [7, 11, 13, 14, 16, 18, 21]. In parallel, the authors of scientific research note that surgical methods for eliminating congenital clefts of the face and palate are constantly developing and becoming more rational: multi-stage surgical interventions are excluded, and the restoration of maxillofacial structures is achieved by two to three years of a child's life [2, 3, 7, 11].

INTRODUCTION

The purpose of this study is: to present a surgical method for the elimination of congenital asymmetric cleft palate using autologous tissue defects.

METHODS

According to the analysis of medical records from 2015 to 2019, a total of 628 operations were performed on 497 children who underwent primary surgical treatment of congenital cleft palate at the maxillofacial surgery clinic of MCC Bonham. These included 260 children with isolated cleft palate, 161 children with unilateral cleft upper lip and palate, and 76 children with bilateral cleft upper lip and palate. The analysis of cases with congenital maxillofacial lesions allowed us to identify a group of children (53 children aged 1 year to 8 years and 2 months) with complex variants of cleft palate in the form of asymmetry of the soft palate and uvula and loss of their own tissues. The study used statistical and clinical research methods, structural analysis and analysis of patient photographs. The results and discussion of Applying for correction of a complex cleft palate were recorded at the age of 2-4 years, isolated cases - at the age of 5-8 years. Delays in treatment were associated with the remoteness of the place of residence, the lack of appropriate specialists providing specialized care to children with this disease, antisocial parents and the stay in specialized institutions of children who were abandoned at birth. In all 53 patients with a complex type of cleft palate, a clear diagnosis was made using the taxonomy developed by us and the most optimal method for correcting the asymmetry of the affected tissues was chosen [10, 12]. The analysis of the features of various cleft palates, palatoplasty parameters depending on age, degree of orthodontic training and methods of surgical elimination of complex malformations of the maxillofacial region allowed not only to predict the duration of surgical rehabilitation of anatomical and structural disorders of the pathological complex "lip-nose-devastation" but also allowed to determine the nature of all subsequent operations of the interdisciplinary

rehabilitation process performed in the conditions of the surgical clinic of the International Medical Center "Bonhomme". Due to the weighted characteristics of cases of congenital asymmetric cleft palate (deviation of more than 1.5-2 cm between two palatal fragments in the presence of a palate tissue defect, deviation of more than 0.5-0.6 cm in the area of the alveolar process), including the use of additional material "titanium silk", regardless of the age of the patient, the defect Required a new tactic restorations. The innovative material was developed in 2011 and since 2013 has been successfully used in various fields of medicine (general surgery, dentistry, gynecology, cosmetic surgery, etc.), and since 2018 - in the MCC "Bonum". The material received the main prize of the 1st Russian-Chinese Industrial Innovation Competition "Innovation Award in 2018". Titanium silk consists of 99.9% titanium and has many advantages: it has biochemical and biomechanical compatibility with body tissues, promotes directed regeneration of soft palate tissues, does not absorb liquid media (blood, saliva, tissue fluids, etc.) and is resistant to microbial flora. In this regard, there are no conditions for the reproduction of microorganisms during use, and the fine-meshed structure of the material prevents the penetration of the contents of the oral and nasal cavities even with the divergence of the mucous-periosteal sutures [2, 5, 6, 8, 15]. Rhinoplasty for complex cleft palate deformities (including asymmetry and loss of autologous tissues) using "titanium silk" includes the following steps: 1. a fresh rim of the cleft under intratracheal anesthesia and an anterior incision, depending on the type of cleft palate; 2. anterior rhinoplasty using titanium silk rhinoplasty; 3. anterior rhinoplasty using titanium silk rhinoplasty. For example, with an isolated cleft palate, a triangular flap is formed in the anterior part of the hard palate, the base of which is located in the area of the alveolar process of the upper jaw. With a one-sided complete cleft palate, a flap is cut out from a large fragment of the upper jaw in the anterior section. With a bilateral complete cleft of the palate, a quadrangular flap is cut out of the interdigital space. To create an additional volume of soft tissues for suturing the free nasal mucosa in the area of the soft palate and uvula, approximately 0.3-0.5 cm of the edge of the cleft in the area of the soft palate and uvula are resected; a Langenbeck incision is made and retroactively pass behind the alveolar process of the upper jaw; 2. The mucosal scar flap in the area of the hard palate is separated, nervouslythe vascular bundle is isolated, preserved and mobilized; 3. the muscles of the soft palate are separated from the posterior edge of the horizontal palatine plate of the soft palate, the hook and the inner surface of the medial plate of the pterygoid process of the main bone and mobilized from the nasal and oral mucosa; 4. Eliminate the asymmetry of the soft palate and palatine arch according to Rogozhina Yu.S. (2019) [12]. it is deleted in accordance with In those areas where the mucous membrane of the soft palate and uvula is short, the necessary transverse incisions are made to align the length of the tissues of the soft palate and uvula with the tissues of the opposite side. Their depth and quantity depend on the degree

of elasticity and tension of the tissues of the soft palate and tongue. Transverse incisions allow you to stretch the tissues of the soft palate and tongue in the form of an accordion, lengthening small fragments of the soft palate and tongue. The two parts of the nasal mucosa and the uvula are stitched symmetrically to form the anatomically correct shape of the soft palate and uvula.5. In case of an asymmetric cleft palate with significant loss of its own tissues, depending on the shape, size and characteristics of the defect, "titanium silk" is placed in the cleft, the edge of the titanium mesh is placed on the edge of the mobilized mucous membrane and bring the edge of the titanium mesh under With bilateral penetrating ruptures, "titanium silk" is covered with a flap cut from the interjawbone [9].6. The mobilized muscles of the soft palate move laterally from a position parallel to the rupture and are stitched. The mobilized muco-rib flap is freely moved in the posterior and central direction. 7. the mucous membrane of the oral cavity is sutured with absorbable sutures; 8. an iodoform tube is applied to the palate under the protective plate, which is removed on the second postoperative day. After the operation, physiotherapy procedures, early consultations and classes with a speech therapist, and recommendations from an orthodontist are prescribed. Follow-up examinations are carried out 2, 6 and 12 months after surgery. Clinical examples are provided for clarity. Clinical case 1 Patient M at the age of 1 year 3 months was admitted to the department of reconstructive Plastic and reconstructive surgery of the International Medical Center "Bonum" with a diagnosis of "congenital partial cleft palate with asymmetry of the soft palate and palate." The cleft in the "A-line" area was 1.0 cm wide, and the right tongue was 0.9 cm shorter than the left one. The operation was performed according to the author's method: conservative uvulopalatoplasty with the elimination of asymmetry between the soft palate and uvula. Clinical case 2 (fig. 3): Patient A (1 year and 4 months) was admitted to the Department of Reconstructive Plastic and Reconstructive Surgery of the International Medical Center "Bonum" with a diagnosis of "congenital bilateral complete cleft palate with asymmetry of the soft palate and drooping palate." The cleft of the alveolar process on the right was 0.5 cm wide, on the left - 0.2 cm, the area of the "A line" was 1.9 cm, the area of the soft palate was 2.2 cm, the left palate was 0.7 cm shorter than the right. Conservative urethroplasty was performed to eliminate the asymmetry of the soft palate and uvula (according to the author's method; In all 53 cases, the wounds healed by primary tension, there were no postoperative defects, the feeding function was restored, there was no communication with the nasal cavity. Only in two cases with a wide congenital defect of the palate (>2.0 cm), healing took longer (>3 months).

CONCLUSION

The choice of the optimal method for surgical correction of complex cleft palate deformities should be patient-oriented and may take into account preliminary interdisciplinary consultations to form a "new" surgical treatment tactic. With extensive crevices of the hard and soft palate (>1.5-2 cm), the use of "titanium silk" as an additional material for urethroplasty makes it possible to eliminate the defect, regardless of the patient's age, and create favorable conditions for completing systemic rehabilitation. The multifactorial mechanism for choosing the method of surgical treatment of complex cleft palates should be carried out in a specialized clinic, taking into account many years of experience.

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