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Evaluation of the Effectiveness of Surgical Treatment by the Sukachev V.A. Method for Mandibular Deformities

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Relevance: Progenia - (gr. pro- "forward" and geneion "chin"), in which the teeth of the lower row overlap the antagonist teeth of the upper row when the jaw is closed. Progenia is one of the most severe forms of facial deformities, characterized by an increase in the lower jaw with protrusion of the chin and malocclusion. Thus, functional and morphological disorders of the lower jaw are observed and patients face serious disorders in the functioning of the jaw apparatus. This is especially common in young people and negatively affects the quality of life and experience significant psychological discomfort [1]. According to the variety, false progeny and true progeny are distinguished [3]. True progeny must be distinguished from false progeny. True progeny (lower macrognathia) is an increase in all or most parameters of the lower jaw of the dentition. However, options are not uncommon when only the basal part of the lower jaw or an isolated overgrown chin part is significant. The ratio of the anterior teeth may be reversed, or with minimal overlap [4]. With false progeny, the dimensions of the lower jaw are normal and the anomaly occurs due to the underdevelopment of the upper jaw or its retro position relative to the base of the skull. This is the first form of false progeny. The second form is due to the anterior displacement of the lower jaw with normal sizes of both jaws in the sagittal direction [1]. Depending on the degree of severity of the sagittal, vertical and transversal mismatch of the dental arches with excessive symmetrical development of the lower jaw (progeny), it is practically advisable to distinguish 3 degrees of this deformity. Grade 1: the bite is not divided or slightly disconnected - up to 2 mm; mandibular angles deployed up to 135 degrees. (in place of 127 degrees is normal); sagittal ratio Only a few teeth are located anomaly; outwardly, protrusion of the lower third of the face and an increase in the chin are noticeable. Grade 2: sagittal gap between the incisors - up to 1 cm; sagittal violation of the ratio between the antagonist canines reaches 1 cm; mandibular angles deployed up to 138 degrees. Individual teeth or groups of teeth are located anomaly. In some cases, there is a decrease in the lower jaw, open or deep bite. Grade 3: sagittal fissure in the frontal area - over 1 cm; sagittal violation of the ratio between the first antagonist molars reaches 1.1-1.8 cm. The mandibular angles are deployed up to 145 degrees. The teeth are located anomaly. Or a deep (reverse) bite. The loss of masticatory efficiency reaches 87% when combined with an open bite. Mild mandibular progeny is a difficult task for the surgeon, since there are no criteria that are sufficiently accurate to rely on when choosing a treatment method. To eliminate the progeny of the lower jaw, a large number of different surgical methods have been proposed, which can be divided into the following 4 groups of operations: on the body of the lower jaw; in the area of the angles of the lower jaw; areas of condylar processes: on the branches of the lower jaw [1].

Materials and Methods: There are such surgical schools that use the Dal Pont technique for mandibular deformities. Our school of surgeons prefers to use the Sukachev V.A. technique for mandibular deformities. In the multidisciplinary clinic of the Tashkent Medical Academy in Tashkent, in the department of plastic and maxillofacial surgery, 30 patients with progeny were under our supervision. Of these, 15 were with true progeny and also 15 with false progeny. Between September 2021 and March 2022. The purpose of the study: to evaluate the effectiveness of surgical treatment by the Sukachev V.A. method for mandibular deformities. Of the 15 patients with true progeny, 2 were grade 3, 10 were grade 2, and 2 were grade 1. And out of 15 patients with false progeny, 2 with 3 degrees of severity, 11 with 2 degrees of severity and 2 with 1 severity. To clarify the diagnosis, anthropometric parameters were taken from the patients, the occlusion of the oral cavity and dentition was assessed, a functional test was performed, which would reveal whether the patient had true or false progeny. After this, they clarified how far the deviation from what is considered the norm occurred. And they did it with the help of: Special rollers, Teleroentgenography. Orthopantomography - a panoramic tomography of the dentition, which allows you to get a detailed picture of all teeth, jaws, adjacent parts of the facial skeleton. Additionally, electromyography of the muscles is performed - masticatory and temporal, to assess the involvement in the process and functional disorders in the surrounding tissues. After these measures, in order to cure all patients, the Operative method Sukachev V.A. bilateral vertical osteotomy was performed. A briquette will be placed on the patient first. Under endotracheal anesthesia, a skin incision is made through the nose 4-5 cm from the angle of the lower jaw 2 cm, soft tissues are dissected and an osteotomy is performed from the semilunar notch to the lower edge of the angle of the lower jaw, the middle fragment is set in the correct position. After that, decortication is carried out on the outer side of the large fragment and on the inner side of the small fragment along the thickness of the layering of the fragments. The fragments are fixed with the help of two implants and screws and intermaxillary traction and rubber splints.

Introduction Dynamics:

Symptoms N=30	3 Day	7 Day	10 Day	14 Day	18 Day	21 Day	25 Day	30 Day	40 Day
Lip numbness n=5	+	+	+-	-	-	-	-	-	-
Trembling lips n=6	+	+	+	+-	-	-	-	-	-
Pain n=30	+	+	+	+-	-	-	-	-	-
Edema n=30	+	+	+	+-	-	-	-	-	-

In the postoperative period, we communicated with patients who had such symptoms as numbness of the lips, trembling of the lips, pain, swelling, we consulted with a neuropathologist and underwent various physiotherapy after which the above listed symptoms were absent.

Conclusion: Surgical treatment was successfully carried out and an aesthetic, cosmetic result was achieved, and the patients were also satisfied with the result. And we can assume that the surgical method of Sukachev V.A. two-sided vertical osteotomy is really effective.

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