

MODERN OPPORTUNITIES FOR TREATMENT OF CHILDREN AND ADOLESCENTS WITH BILATERAL ANKYLOSING DISEASES OF THE TEMPOROMANDIBULAR JOINT

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Resume: In the article we show the results of treatment of children with bilateral ankylosing diseases of the TMJ. Later and poor-quality treatment of children with this pathology leads to disruption of the growth of the lower jaw, which subsequently leads to the defeat of other bones of the skull, an incorrect proportion of the jaws, deformations of the jaws.

Introduction Ankylosing diseases of the temporomandibular joint are a complex pathology in children age . In 75% of cases clinically the disease manifests itself in children in the first year of life, and is usually due to a number of reasons: birth trauma, hematogenous osteomyelitis, inflammation of the middle ear, trauma of the child age period . The only effective way to treat secondary deforming osteoarthritis and ankylosis of the TMJ is surgical intervention. Initially, the surgical approach was reduced to the development of techniques for various osteotomies of the mandibular branches with the removal of pathological (ankylotic) bone growths. Later, in the postoperative period, the patient was made an orthodontic device to keep the lower jaw in the correct position, which he had to use for a long time after the operation. Later, various auto-, allografts and endoprostheses were used to treat this pathology, which was given the shape and size of the missing part lower jaw. Very effective method of compression-distraction osteogenesis in childhood, which allows you to consistently and gradually remove the defects of the lower jaw and prevent the development of secondary deformations of the facial skeleton. Proceeding from many methods of surgical treatment and numerous types of plastic material replacing the defect of the lower jaw, there arises the need to develop a certain algorithm for surgical rehabilitation of patients with bilateral secondary deforming osteoarthritis and ankylosis of the temporomandibular joint. In this case, it is necessary to determine the appropriateness of choosing a method of surgical treatment in accordance with the patient's age, the nature of the pathology, anatomical and functional disorders, aggravated with growth of the organism; and also to improve the methods of surgical treatment with unilateral bone disease of the TMJ.

Aim-to improve the treatment of children with bilateral ankylosis and introduce a new algorithm in the work of our clinic

Tasks

1. Supplement a comprehensive examination of children before surgery

2. To improve the surgical aspect of treatment of children with ankylosis of tmj
3. Introduction of new techniques in the work of our hospital

Materials Methods. From 2016 to 2018, 28 children and adolescents with the diagnosis "bilateral ankylosis of the TMJ" were surgically treated at the department of the Dental Children's Clinic, the clinical center for maxillofacial reconstructive and reconstructive and plastic surgery. In the clinic, the children were prepared for surgical intervention, collecting anamnesis, identifying the accompanying pathology, general clinical examination, X-ray examination (orthopantomography, direct and lateral telerradiography, computed tomography, magnetic resonance imaging of the right and left temporomandibular joint), orthodontic examination: analysis of diagnostic models of jaws, photos of children were taken in full-face, half-left and right, in the profile on the left and right, inside rirotovye pictures of occlusion in the straight and lateral projections, photographs of the shape of the dentition of the upper and lower jaw, photographs of measurements of the size of the opening of the mouth. In the course of preparing children for bone plasty of the mandibular branch with an autograft from the iliac crest, an endoprosthesis was used to perform plastic stereolithographic models of the skull according to the CBCT of the skull of patients. After a comprehensive examination of patients, surgical treatment was performed. We performed 26 surgeries. Three patients underwent surgery "Osteotomy of the mandibular branch with removal of ankylotic sprouting", followed by splinting with Vankevich's bus. Five patients after ankylosis removal to increase bone volume performed the operation "Bone plastic by autograft from crest of the ilium ", as a stage of preparation for distraction osteogenesis. Five patients underwent an operation "Osteotomy of the mandibular branch with a one-stage osteotomy of the defect with an endoprosthesis". Twelve patients, in view of the fact that after previous operations the lengthening of the linear dimensions of the lower jaw was determined, the operation "Osteotomy of the mandibular branch with setting the distal jaw in the region of the mandible branch" was performed. The children were provided with the distraction apparatus Konmet 821.00, 820.00. The magnitude of the distraction was determined by the capabilities of the distraction apparatus (30 mm, 20 mm) and the average value of the regenerate was 1.8 cm to 3 cm. The retention period was 4 months. After the retention period, the distraction apparatus was removed. After increasing the size of the mandibular branches, an active phase of orthodontic treatment was performed.

Results and discussion

It should be noted that it is not always possible to completely eliminate the deformation of the bones of the face after the elimination of ankylosis of the TMJ. And after 16-17 years it is necessary to perform orthognathic surgery on 2 jaws in order to equalize the occlusal plane of the upper jaw, planar osteotomy of the lower jaw with normalization of occlusion, bone plastic of condylar processes with endoprosthesis or bone autograft. At the same time, an important aspect is the planning of this type of operation in the Dolphin program, with the production of a stereolithographic model and an individual endoprosthesis. This method completes the complex realization of patients with jaw deformities by eliminating ankylosis of the TMJ.

Conclusion

From 2016-2018 completely treated in 9 patients, with a good functional and aesthetic effect.

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