



COMPLEX TREATMENT AND PREVENTION OF COMPLICATIONS IN CHILDREN WITH A BROKEN LOWER JAW WHEN FIXING LUMPS USING AN ORTHOPEDIC METHOD

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Abstract:

In recent years, high rates of injury in children have not shown a downward trend. The clinical picture of Maxillofacial lesions, especially mandibular fractures and their complications in childhood, is characterized by certain characteristics. This type of injury is second only to inflammatory diseases in terms of the frequency of occurrence and accounts for 25% of all emergency patients who require hospital treatment. According to the same authors, among the injuries of the bones of the facial skeleton, up to 90% are fractures of the jaw, of which 95% are fractures of the lower jaw.

Keywords: complex treatment and prevention, children, fractures, mandible, repositioning of tuberosities, orthopaedic method.

INTRODUCTION. The diagnosis is the most difficult, controversial when choosing a treatment method, and those that differ in the manifestation of the consequences after injury are fractures of the condylar process of the jawbone, ranging from 25% to 72% of all types of fractures. mandible in childhood [1,6].

According to the literature, damage to the condylar process, especially crushed cracks and dislocation fracture within the joint, leads to underdevelopment of the lower jaw, deforming arthrosis and ankylosis of the Chaka joint [3,5].

The problem of treating children with a fracture of the condylar process of the lower jaw is mainly solved in two directions: some give preference to conservative functional methods [4], while others emphasize and indicate the need for open repositioning of all elements of the temporomandibular joint. the use of both conservative and surgical treatments depending on the indications [2].

High-tech materials from titanium alloys are being proposed and used as fixators, and offer mandibular absorbable materials for osteosynthesis of the condylar process [8]. Minimally invasive operations using endoscopic equipment are increasingly included in Surgical Practice [7].

Due to the lack of a comprehensively developed pathogenetic concept that explains the mechanisms of development of post-traumatic complications in the lower jaw fracture, many theoretical aspects, practical and clinical issues have not been solved. Thus, the criteria for choosing the method of detecting lumps in children are not clearly defined - in fact, only the technical side of the use of various structures is considered; the likelihood of rebuilding the fused or fused parts of the lower jaw in the wrong position

without further active orthodontic support is highly assessed [10].

Adaptation and development of new technologies for the treatment of lower jaw fractures in children with a broken lower jaw bone, especially condyle process, is today an important task of pediatric jaw-jaw surgery. The issue of an individual approach to the rehabilitation of children of different age groups, taking into account risk factors for the development of complications, has not been resolved, guidelines for treatment tactics have not been formulated.

Diagnosis and treatment of traumatic injuries of the lower jaw is a complex and urgent problem in pediatric jaw-fascial Traumatology. Violation of the integrity of bone structures is traditionally recorded using the X-ray method. In particular, in a fracture of the lower jaw, it is recommended to carry out X-ray of the skull in direct (nasophrontal) projection and lateral projection of the lower jaw on both sides. However, Rabukhina N.A. According to (1991), in almost 25% of patients, damage to the condylar process is not recognized in survey photos, and in 10.5% of cases with bilateral damage, only one process is diagnosed with a fracture. [8]

In pediatric practice, since the mid-70s, the method of orthopantomography has been widely used, which makes it possible to assess the condition of the condyl processes on both sides of the lower jaw and the dentofascial system as a whole with relatively low radiation. the dose is important for the patient, especially considering the pediatric population [11]

The peculiarity of the placement of the condylar process of the lower jaw directly at the base of the skull makes it difficult to study the area of injury, especially the head of the lower jaw. Therefore, the most difficult in X-ray diagnostics and of interest to clinicians is the



study of TMJ. This was noted by a number of domestic and foreign researchers [8].

The traditional examination of TMJ and especially TMJ is accompanied by high radiation exposure during radiography and TMJ tomography (at least 4 tomograms), which, according to Pordes, limits the use of an X-ray of the temporomandibular joint. Parma and Schuller in pediatric practice. Side projection tomography is a method of choice among traditional Radiological studies of TMJ. Another option for layer-by-layer study of TMJ is zonography. It allows you to obtain the same information as on a number of tomograms, but for the patient under the influence of less radiation [9]. Many recent publications are devoted to the study of TMJ pathology in adults, the authors of which unanimously note the high informativity of CT when assessing the state of TMJ [11].

All researchers note the high diagnostic potential of CT for mandibular fractures, especially the condylar process, and recommend its widespread use in Pediatric Practice [3].

The use of X-ray-spiral computed tomography for damage to the lower jaw allows for multiplanar reconstruction of the CT image and 3-dimensional imaging of the research area. These abilities help the surgeon decide on the tactics of rehabilitation measures, as well as analyze the long-term outcome [10].

The advantages of MRI include: the ability to visualize the soft tissue structures of the studied area in any direction of the department, the absence of radiation exposure and non-invasive.

Domestic and foreign literary sources have separate publications showing the use of magnetic resonance imaging in the study of TMJ in children [8].

Khojibekov M.X. etc. (2000) emphasize the importance of using MRI in the early stages after injury, as identifying hemarthrosis or synovitis helps to choose the right treatment tactics and prevent further complications. MRI has no negative biological effects, which is a very important point in the study of children and adolescents. It turns out from the literature that the MRI does not have significant advantages compared to CT in terms of recognizing the presence of a fracture of the condylar process of the lower jaw and determining the displacement nature of the fragments.

AIM OF THE STUDY: To apply complex treatment and prevention of complications in children with mandibular fractures during orthopaedic repositioning of tuberosities.

MATERIAL AND METHODS. 53 children with this disease required complex conservative treatment (orthopedic and orthodontic methods), including 12

according to the basic regimen. After a conventional examination, patients in this group underwent re-placement and fixation of the splinters using Tigerstedt wire tyres.

The duration of fixation depended on the location and type of fracture: for example, in an isolated fracture of the MC, immobilization traditionally takes 21 days; when the body and MN are damaged, the tire is left in the LF. Up to 21-28 days. After removing the tires, patients are advised to perform functional exercises.

Depending on the drug treatment, patients in each group are divided into 2 subgroups. 12 patients of the 1st subgroup received pain relievers, sedatives for pain and agitation (for 1-3 days), dehydration, antibacterial, restorative, anti-inflammatory therapy and a soft jaw diet within the framework of basic pharmacotherapy. Local irrigation of the oral cavity with antiseptic solutions was carried out.

RESEARCH RESULT: Early prevention of complications was performed in 41 patients in subgroup 2. Orthopedic treatment involves 3 stages.

Stage I-orthopedic rearrangement and fastening of partitions in the provision of specialized care in the hospital for 14-28 days.

Phase II-physiotherapy, mechanotherapy for 6 days.

Stage III - orthodontic treatment aimed at maintaining the jaw in the correct position: a) functional unloading of the damaged area of the lower jaw (duration up to 1 year, that is, depending on the period of callus formation); B) correction of the initial deformation of the jaws while maintaining functional unloading using removable and fixed orthodontic equipment. At all stages, patients were advised to exclude coarse food from the diet and transfer cars. Most children have a broken hip bone.

The choice of conservative treatment in 6 children is due to the presence of severe general condition and severe symptoms of TBI.

After a conventional examination, patients underwent re-placement and fastening of the splinters using Tigerstedt wire tyres. When the upper jaw is damaged, the head is wearing a soft chin with a cap and rubber band. The duration of fixation depended on location and fracture: for example, immobilization took 14 days for isolated fracture of MO (SG). If the body and myocardium are damaged, intermaxillary hard fixation is removed after 14 days, and the tire remains in the lower jaw for 21-28 days. Local treatment correction involves early functional unloading using a support plate device similar to the Weber tire. During the treatment, work was carried out to irrigate the oral cavity and



repair the tires. As a result of basal treatment, complications were observed in 12 patients.

Patients treated with the proposed method after 7-10 days after discharge from the hospital were subjected to a comprehensive examination according to the proposed scheme to identify diseases of internal organs and systems, the state of microbiocenosis and the involvement of the hemostatic system. consists of specialists. After the end of the examination, a regimen of pharmacotherapy, physiotherapy in combination with orthodontic treatment of the resulting deformity was prescribed, taking into account the functional unloading regimen of TMJ from the damaged side and a gentle diet.

After complex treatment according to the proposed algorithm, no complications were observed.

Clinical example: patient K.A., Age 6, was injured during a car accident - he was hit by a car. S. he was in the intensive care unit with severe traumatic brain injury. TMA a day later, the children were admitted to the jaw-facial surgical clinic. Diagnosis when taken: severe traumatic brain injury, concussion, Fracture of the lower jaw in the body area, bilateral fracture in the SG area with external dislocation of large fragments of the branch. Taking into account his general condition, the patient was given a conservative treatment of the recommended method - repositioning of the lumps, followed by prosthetics. The result is recovery with the development of neoarthrosis. The functional condition after treatment is satisfactory.

Based on literature data, it turned out that MPI in children accounts for most of the lesions in the jaw-facial area. In particular, it is difficult to choose a diagnostic and therapeutic method, and the consequences of a fracture of the condylar process (MO) of the mandibula. The most effective, common and safe method for PIP Diagnostics is orthopantomography . However, damage to the condylar process is not always detected in research films, especially with bilateral damage, only one process fracture is detected.

CONCLUSION: there are different treatment options. However, in search of new treatments, the authors pay special attention to the use of new materials and surgical approaches to repair fragments. In the treatment of children with a fracture of the condylar process of the lower jaw, some experts give preference to conservative-functional methods, while others believe that it is necessary to carry out an open reposition of all elements of the temporomandibular joint, depending on the indications. , using both conservative and surgical methods of treatment.

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