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SUBSTANTIATION OF THE EFFECTIVENESS OF TREATMENT OF MANDIBULAR FRACTURES IN PERSONS OF DIFFERENT AGE CATEGORIES WITH AN AUTOTHROMBOCYTE MASS

(LITERATURE REVIEW)

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Abstract: In peacetime, the causes of fractures of the lower jaw are most often blows and bruises received during a fall, compression, etc. Currently, the frequency of transport and household injuries has increased xo‘1, 2, 3g‘.

A fracture of the lower jaw usually occurs as a result of the impact of a force that exceeds the physical capabilities of the bone tissue. Such a fracture is called traumatic o‘4g‘.

There are four mechanisms of fracture of the lower jaw: inflection, shift, compression, separation.

Keywords: fractures of the mandible, inflection, shift, compression, separation.

The lower jaw has the shape of an arc. In the area of the corners, chin opening and canine, in the area of the base and neck of the condyle process, i.e. in the thinnest or curved places, the jaw experiences the greatest tension and breaks due to inflection. There are several possible variants of a fracture of the lower jaw due to an inflection.

The shear mechanism is realized when a force is applied to a portion of the bone that has no support, and it shifts relative to the supported portion of the bone. This is how a longitudinal fracture of the jaw branch occurs if the force directed from the bottom up is applied to the base of the lower jaw anteriorly from its angle in a narrow area (in the projection of the coronal process). The anterior part of the branch shifts upwards in relation to the posterior, which has support in the articular cavity. The mechanism of the shift is also possible with fractures of the jaw body. If the force is applied to the base of the jaw from the bottom up in the area devoid of teeth, then it may, without support, shift upwards relative to the area with teeth.

The compression mechanism manifests itself if the acting and opposing forces are directed towards each other. When a blow is struck from the bottom up along the base of the body in the area of an angle over a wide area, the branch of the lower jaw is compressed and breaks in the transverse direction.

The mechanism of separation is manifested when the blow is directed from top to bottom on the chin area with tightly clenched teeth. There is a reflex contraction of the masticatory muscles and the temporal muscle attached to the thin coronal process tears it from the branch.

In addition to traumatic fractures, pathological fractures are distinguished that occur without the participation of a traumatic factor in areas with reduced strength due to bone destruction by pathological processes (odontogenic cyst, osteoblastoclastoma, chronic osteomyelitis with extensive sequestration, etc.) [6, 7].

Fractures of the mandible are the most common among all fractures of the bones of the facial skeleton [7, 8]. According to various authors [5, 9, 10, 11, 12] the proportion of patients with mandibular fractures ranges from 75 to 95% among all patients with maxillofacial profile.

According to the materials of various authors, the ratio of the number of facial injuries in men and women is characterized by a significant predominance of male injuries and is 8:1 [13]. The predominance of male injuries over female injuries is also

noted by other authors [14, 15].

According to most authors, the greatest number of fractures occurs at the age of 20 to 30 years. Thus, the following data are found in the literature: patients aged 20-29 years make up 36.6%, at the age of 30-39 years - 25.9%. People over the age of 60 make up 2.8% of the number of victims, children under the age of 15 - 4% [16, 17].

Currently, the use of PRP in various forms is used in many branches of medicine. This is due to the universal the mechanism of their action, safety and low cost. The availability of the method and its effectiveness open up opportunities for its application in traumatology and orthopedics, surgical dentistry, maxillofacial surgery and many other areas.

V.L. Brekhov in his work applied platelet-enriched autoplasm in the treatment of comminuted intra-articular fractures for adhesion of free-lying fragments of cartilage with subchondral bone. This made it possible to avoid their removal or fixation with implants. J. Lee, F. Harwood [19] compared the effectiveness of injections of corticosteroid drugs enriched with platelet autoplasm in chronic epicondylitis with injections of corticosteroids without the use of autoplasm for a year. As a result of the study, the authors concluded that the use of corticosteroid injections with platelet-enriched autoplasm shortens the rehabilitation period and reduces pain. M. Sanchez analyzed the effectiveness of the use of platelet concentrate injections in the treatment of patients with osteoarthritis of the knee compared with injections of hyaluronic acid and found that the use of autoplasm was effective in 33.4% of patients, and hyaluronic acid - only 10% in the control group.

Surgical dentistry. S. Fromand S. Wallace analyzed the feasibility of using PRP in sinus lifting. Three patients underwent sinus lifting with simultaneous implantation on both sides. On one side, PRP with Bio Oss was used, on the other only Bio Oss. As a result, on the side on which PRP was used, the contact of the implant with the bone was 38.8%, and on the opposite side - 33.8% [21]. J. Kassolis et al. they noted an improvement in bone regeneration when using PRP in sinus lifting. Using histological examination 3 months after sinus lifting, A. Thor et al. a significant increase in bone regeneration was revealed on the side on which PRP was used, compared with the opposite side without its use.M. Robiony et al. confirmed the effectiveness of the use of PRP in a series of 5 subjects who underwent distraction osteogenesis with severe underdevelopment of the mandible. After attaching the PRP and autograft from the iliac crest to the bone defect resulting from distraction, the planned distraction height was reached. The authors concluded that there was a significant improvement in bone regeneration. R. Marx reported that when treating the skin flap with platelet-enriched plasma, there is a significant decrease in peripheral edema compared to the opposite side, on which the technique was not used. In addition, after 6 days, mature dermis is observed on the side treated with PRP, which is not observed on the opposite side. The differences were also evident after 6 months on the control side (there was an increase in scarring and a large loss of pigmented cells) compared to the side where PRP. EA was used. Pyleva used plasmolifting in the treatment of osteoarthritis of the temporomandibular joint. Plasmolifting proved to be effective in the treatment of middle-aged patients with arthrosis of the 1st-2nd degree: it enhances the repair processes and creates a matrix that is the basis for the regeneration of the composite tissue of the temporomandibular joint.To date, significant progress has been achieved in our country in the development of the field of medicine, the adaptation of the healthcare system to the requirements of world standards, and the improvement of the effectiveness of surgical treatment of mandibular fractures using autothrombocyte mass. The set of measures to improve the healthcare system of the Republic of Uzbekistan includes such tasks as "... improving the

efficiency, quality and accessibility of medical care in our country, as well as creating a system of medical standardization, supporting a healthy lifestyle through the introduction of high-tech treatment methods, creating effective models of patronage care, medical examination and disease prevention ...". These tasks make it possible to improve the treatment of fractures of the mandible by using autothrombocyte mass and improving the use of modern technologies in providing high-quality medical, including dental care to the population Maxillofacial surgery is one of the main directions of surgical dentistry. The field of study of this direction is the development of methods for the diagnosis and treatment of CHLO diseases. When considering this area in particular, it is necessary to pay attention to its close contact with the most important vital structure - the brain and direct connection with all systems of the human body. Therefore, the treatment of various dislocations and injuries should be carried out very carefully, since any wrong action or movement can lead to undesirable and sometimes disastrous consequences [12].

Together with the general increase in injuries, there is an increase in the frequency and severity of maxillofacial injuries, as well as combined defects. This is evidenced by a large number of studies by Russian and foreign scientists. The number of maxillofacial injuries among the total number of bone injuries ranges from 3.2 to 3.8% [13].

In recent years, the proportion of maxillofacial trauma (CRT) has increased in the structure of general injuries; patients from cities with fractures of the bones of the facial skull account for up to 40% of patients. This indicates the medical and social significance of this pathology. According to epidemiological studies, road traffic accidents (43.9%) and assaults (26.7%) are the most common causes of CHLT. Other causes in descending order: accident from falling (16.5%), accidents at work (9.5%), sports injuries from falling (3.18%) According to other data, among the causes of CHLT, household trauma is in 1st place (82.7%), and road transport is 11.8%; at the same time, a decrease in the number of patients who received CHLT at work is associated with the decline of the latter in post-Soviet countries and the current crisis phenomena in the economies of different countries [14]. CHLO defects are more common in people of working age from 18 to 50 years - 91%. The seasonality of injuries is noted, in the summer and autumn months the number of patients with facial injuries is growing. This is explained by an increase in the frequency of motor vehicles, as well as street injuries, as well as injuries related to agricultural work. Studies have shown that the first place among CHLO injuries is occupied by: home (83%), motor transport (12%), industrial (4.5%), sports (0.5%). It is worth noting the increase in the number of bullet wounds of CHLO in recent years. The number of fractures of the lower jaw ranges from 77 to 95%, the upper jaw from 3 to 20%, both jaws from 2 to 8% [16].

The results of numerous studies indicate that fractures of the lower jaw (LF) occupy a leading place among the injuries of the facial skull. Patients in this category make up from 67 to 87% of those hospitalized for injuries to the tissues of the CHLO [17]. At the same time, 60% have a unilateral fracture of the LF, of which 20.2% have fractures of the LF body. Bilateral fractures of the LF are more than 40%, which is due to the shape of the bone (in the form of a "horseshoe") and its double fixation at the base of the skull. 32.5% of patients with LF fractures have fractures in the angle area. The high frequency of such fractures is due to the anatomical and physiological features of the LF, as well as a variety of local and general causes, which leads to the development of a large number - 30% or more [12.].

Quite often among the fractures of the LF there are angular in combination with fractures of the jaw body (22.7%) and simultaneous fractures of the jaw body and articular process (10%). In women, fractures of the bones of the nose (23.7%), teeth

(22.7), the alveolar process of the upper jaw (20%) are more common, in men - LF, traumain men is usually more severe and multiple.

CHLO injuries were distributed according to the localization as follows: defects of the soft tissues of the face 19%, fractures of the zygomatic bones 15%, fractures of the bones of the nose 4.5%, fractures of the upper jaws 3.5%, fractures of the lower jaw 58%. A certain pattern has been established between the timing of victims' appeals to special institutions, localization, type of injury, as well as the nature of the defect. It was found that on the first day after the injury, 92% of patients with defects in the soft tissues of the face, gunshot defects - 89%, fractures of the bones of the nose - 68%, numerous injuries of the bones of the face - 69%, double fractures of the lower jaw - 58% sought medical help. At the latest, up to 10 days after the injury, patients with fractures of the zygomatic bones - 32%, single fractures of the lower jaw - 18%, numerous trauma to the bones of the face - 31% [Tsoraeva F.V., 2019].

Sipkin A.M.et al.[2016] examined 591 patients with acute traumatic CHLO injuries who were on inpatient treatment in the period from 2013 to 2015. Traumatic injuries are most often found in the most able-bodied age of 30-40 years. In the structure of traumatological pathology of CHLO, patients with LF fractures predominate (67.5%). Fractures of the upper jaw amounted to 5.2%, the zygomatic bone and the zygomatic arch 11.3%, the walls of the eye socket 4.7%, the bones of the nose 4.1%, the frontal bone 0.7%, combined fractures 6.4%. Along with this, taking into account the structural features of the CHLO, such as a large amount of fiber, a well-developed blood supply and, in this regard, rapidly increasing collateral edema and hemorrhages in tissues, treatment should include measures for the prevention and treatment of inflammatory complications.

According to the literature, the percentage of LF fractures from the total number of facial skeleton injuries is 80% and occurs at the age of 17 to 40 years (76%). Considering that a large number of LF fractures occur at the working age, it is necessary to carry out adequate treatment based on the clinical situation, and also strives for a full functional recovery of the patient. In case of LF fractures, there are many factors that affect the outcome of treatment, these are periodontal diseases, non-sanitized foci of inflammation, the presence of teeth in the fracture line. Self-medication is often a negative factor, for example, the influence of two jaw splints on Vasilyev and Tigerstedt's dental splints on periodontal tissues [Khramova N.V., 2020].

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