PRINCIPLES OF SURGICAL TREATMENT OF FRACTURES OF THE CHEEKBONE-ORBITAL COMPLEX.

Ravshanova Nazira Akramovna

Maxillofacial surgery second year master student.

Samarkand State Medical University

Abstract: The article presents a number of features in the reconstruction of the cheekbone-orbital in the treatment of traumatic injuries of the facial skeleton, depending on the severity, localization and timing of damage; presents options for the use of various implants; substantiates the features of their use in various clinical situations.

Keywords: various implants, clinical situations, facial skeleton, traumatic injuries, orbital breaks.

Orbital breaks can happen as a result of coordinate injury to the eye locale or encompassing facial bones. The breaks can lead to noteworthy utilitarian impedance and restorative changes. Surgical treatment of orbital breaks points to remake the hard life systems and reestablish the orbit's unique volume. This clinical survey article looks at the key components with respect to orbital breaks. Orbital breaks are breaks within the bones encompassing the eye attachment (circle), and the third most common sort of facial break in grown-ups and children. The breaks are ordinarily categorized by anatomical area, such as orbital floor, orbital roof, sidelong divider and average divider breaks. The component of damage is ordinarily limit drive injury to the eye locale, driving to break of the lean bone of the circle, most commonly the floor and average divider.

Two central highlights within the circle are the second-rate orbital gap and the predominant orbital gap. The previous lies within the orbital floor and contains the infraorbital nerve, infraorbital supply route and infraorbital vein, which enter the maxillary bone anteriorly and exit through the infraorbital foramen. In expansion, the second rate ophthalmic vein, zygomatic nerve and parasympathetic strands pass from the pterygopalatine ganglion through the second rate orbital gap. The infraorbital nerve isolates the orbital floor in a sagittal heading and could be a contributory figure for the lean floor average to the nerve frequently being the primary to break. The prevalent orbital gap proceeds in a craniolateral heading from

the second-rate orbital gap and contains cranial nerve III (oculomotor nerve), cranial nerve IV (trochlear nerve), branches of cranial nerve V (trigeminal nerve), cranial nerve VI (abducens nerve), thoughtful filaments from the cavernous plexus and prevalent ophthalmic vein and second-rate ophthalmic vein. The optic canal is found average to the summit of the circle and transmits cranial nerve II (optic nerve) and the ophthalmic supply route. When vitality exchanged to a bone surpasses its push resilience, a break may result. A few components decide on the off chance that and how a bone breaks: the sum of vitality exchanged to the bone e.g. component of damage, speed of collision, airbag sending etc; vectors of strengths; and the characteristics of the tissue included e.g. anatomic area of affect and quality/health of the bone.

A basic break happens when a single location of brokenness exists between two hard portions. With a comminuted break there are different fragments of bone. Bone sections jutting through skin are considered open breaks, as are breaks of the alveolar bone and sinuses. They are more vulnerable to contamination compared to their closed partners. Closed breaks are exceptional within the confront.

The hard parts may stay anatomically diminished or can ended up uprooted depending on the component of harm and strong powers acting on the parts. The degree of anatomic disturbance of broken fragments is alluded to as uprooting. Blood stream to the break location comes about in callus arrangement over time taken after by mineralization of the callus on the off chance that the break location is immobilized.

Malunion happens when break fragments are not decreased and the bone recuperates in an anatomically inaccurate position3. Within the confront, this could cause critical distortion and inability. Deformation happens since the skin delicate tissue envelope (SSTE) of the confront is subordinate upon the basic maxillofacial skeletal system. Anatomic annoyances of the hard system from maxillofacial injury show as unusual appearances of the SSTE. Depending on the area of the fracture(s), the stylish distortion may be subtle e.g. negligibly uprooted front maxillary sinus divider breaks, or self-evident e.g. displaced nasal bone breaks.

Inability happens when malunion meddling with work. Typically, most apparent with dentoalveolar or mandibular breaks, as malunion can result in dental malocclusion, making rumination troublesome or inconceivable.

The surgeon must ensure that hard parts are anatomically decreased and stabilized so that when mending is total, callus arrangement is minimized to play down deformation and inability. Indeed, when decrease is accomplished, the result may not be perfect. Destitute blood supply or wound disease may cause postponed union when bone falls flat to mineralize3 months after diminishment and immobilization. Stringy union may happen (as a rule inside 10 days in grown-ups) in case bones are diminished but insufficiently immobilized. Non-union may result in the event that bone is misplaced or the wound is sullied with remote fabric. Hence, the specialist must guarantee that a break location is clean, free of remote fabric (insomuch as conceivable), and well vascularized earlier to diminishment and immobilization. Anti-microbials are now and then justified to counter bacterial defilement.The invention relates to the field of medicine, namely maxillofacial surgery and ophthalmology, and can be used in the treatment of patients with fractures of the middle zone of the face and the bottom of the orbit. The essence of the method consists in providing access to the site of reposition, reposition of bone fragments using a plate and subsequent suturing of the wound. In this case, access is carried out from the outside of the facial skeleton. Two incisions are performed: the first incision along the fold of the upper eyelid 15-20 mm long, the second incision after hydrotreating the conjunctiva with 0.09% sodium chloride solution and 0.1% epinephrine solution. With it, the skin of the lower eyelid is dissected downwards at an angle of 45 ° to a horizontal plane 10-12 mm long. Next, the lateral canthal ligament is dissected in the horizontal plane and the ends of the ligament are taken on holders. Dissect the conjunctiva to the lacrimal sac in the medial direction, the circular muscle of the eye and the periosteum along the lower ocular margin. With the help of hydro-preparation and dissection of the periosteum, the bottom of the orbit is revised to the orbital elevation. Next, using a Limberg hook, the fragments of the zygomatic bone of the lower wall of the orbit are repositioned. Release the pinched muscles of the eye and orbital fiber to the orbital elevation with the help of an orbital retractor.

Among the patients of the 2nd main group, in 9 (24%) cases, there was a restriction of the mobility of the eyeball with pseudo paralytic strabismus and diplopia caused by the introduction of bone fragments into the soft tissues of the orbit. To these victims, the defect of the lower walls of the orbit was eliminated with the help of an individually modeled titanium membrane fixed with special screws in the area of the

lower edge of the orbit. The life systems of the circle is complex and its boundaries are shaped by seven distinctive bones. The orbital substance comprise of the globe, fat, extraocular muscles, nerves, blood vessels, lacrimal sac and lacrimal organ. The sidelong divider is shaped by the more noteworthy wing of the sphenoid bone and the cheek bone (zygomatic bone), whereas the average divider is shaped by the lacrimal bone, ethmoid bone, upper jaw bone (maxillary bone) and the lesser wing of the sphenoid bone . The orbital floor is shaped by the maxillary bone, zygomatic bone and palatine bone. The roof is shaped by the frontal bone and the lesser wing of the sphenoid bone, and communicates anteriorly with the frontal sinus and posteriorly with the front cranial fossa. In 7 (18.4%) patients with an injury duration of 15 to 60 days, a displacement of the zygomatic bone was noted mainly in the direction of the orbit, formation of various sizes of bone defects in the area of the outer and lower walls of the orbit. These victims were found to have various changes on the part of the eyeball and the accessory apparatus. All patients underwent bone fragments reposition and restoration of the outer and lower walls of the orbit by decalcified alecost. The known method reduces complications, since during endoscopic control through the working opening, the bone fragments, the eyeball and the musculoskeletal apparatus of the eye and the orbit are most accurately repositioned using an auxiliary opening and forming the correct ratio between the oculomotor muscle, the optic nerve and the formed bone wall with the restoration of the movements of the eyeball.

However, in the known method, access to the reconstruction site is carried out through the oral mucosa and maxillary sinus, which can lead to various inflammatory complications, such as maxillary sinusitis, infection of the orbital fiber with oral microflora during osteosynthesis, and also requires expensive equipment - an endoscope. The use of autoboots can lead to its resorption and the formation of secondary enophthalmos. The patient's consent to bone graft collection is required, which is an additional operation and not all patients agree. The graft must be modeled according to the shape of the defect, which lengthens the operation time. With long-standing fractures in 22 (58%) patients (where the prescription of the injury was from 2 months to 7 years) with the presence of the same symptoms of damage to the eyeball and its accessory apparatus, the lower wall of the orbit was plasticized with autochories', restoration of tear ducts, elimination of traumatic eversion. Preventing infection begins with initial management in the emergency

unit. Open wounds are copiously irrigated with sterile isotonic fluid. Badly contaminated wounds are thoroughly cleaned and irrigated. Pressurized pulsatile irrigation methods have been demonstrated to be useful in wound debridement 6 and are particularly useful to cleanse wounds with particulate matter sand and road debris. Prophylactic antibiotics to prevent infection when treating non-mandibular maxillofacial fractures have been discouraged, although a recent review highlighted the lack of large high-quality randomised controlled trials to evaluate antibiotic use in non-mandibular facial fractures. When treating fractures of the mandible, prophylactic antibiotics are likely beneficial when used in the immediate perioperative period 8 . In any case, adherence to sterile technique in the operating room and good quality postoperative wound care should not be compromised.

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