

DETERMINATION METHOD OF THE SURGICAL APPROACH PLACE IN ZYGOMATIC ARCH FRACTURES

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Abstract: The exact establishment of the surgical approach place in zygomatic arch fractures has a great diagnostic and surgical importance. By this method were examined and treated 16 patients with zygomatic arch fractures that were treated in oral and maxillofacial center from Republic of Moldova. The method gives the opportunity to determine exactly the incision place in the surgical approach in zygomatic arch fracture reduction. This method easy to perform, economic and accessible to all patients, this method doesn't have harmful actions upon the organism.

Key words: zygomatic arch, fractures, trauma, surgical approach.

INTRODUCTION

Physiognomy represents the face features ensemble that have a particular character expressing everyone individual personality. Face is the organ that has biological and social function and the high interest of the study to this human body part by doctors, sociologists, artists, phylosophers. There is no other human organ that the aesthetical requirements would be as high as they are to face.

The trauma represents a social problem and increases with society development.

Face region is often exposed to traume due to the fact that it is always not covered, in comparison to other body parts that are protected with clothes. Facial trauma incidence is quite frequent and different from one country to another and depends on: geographical positioning, state economical level, social level, and many other factors that we will reffer later.

Psychosocial factors have an important contribution in traumatical pathology and the actual medicine is on the cross road of „morphology” and „functional”.

The traumatic emergencies have known a highly incidence,transformed in „traumatic epidemy” under the developmental pressure of high

technologies, overpopulation, circulation increasing speed and vulnerable agents in human habitat.

The trauma is placed on the third place in the death cause rating on the same place with cardio-vascular pathologies and tumours. Death of workable people because of trauma is on the first place on the death causes (4,7).

Because environmental factors play an important role in an illness evolution their appearance can be prevented, and the incidence –decreased by changing the environment and personal attitude correction upon health; but this prophylaxis mesures of high efficiency are difficult to be realized practically.

Due to medical information mens the main way being mass-media(press, radio,TV), the nowadays patient gained a new vision upon medicine, life and death. Doctor's aim is to promote health, the transformation of public health into an individual civic value, by a healthy way of life,into a real state and individual strategy.

The trauma has always threatened human health, affecting mostly the young population that is has work capacity, and by determining a high invalidity and mortality not only of this contingent, but population in general.

During trauma the accidented supports cosmetical, functional and anatomical changes, that quite often generate the loss of work capacity. Today the trauma became an acute medico-social problem, because beneath frequent physical infirmities it causes social and economical problems.

Aim of the study: The aim of the study is to determine the surgical approach in zygomatic arch fractures movements.

MATERIALS AND METHODS

In order to achieve the goal 16 patients were examined and treated with zygomatic arch fractures in OMF section along 2007-2009 years.

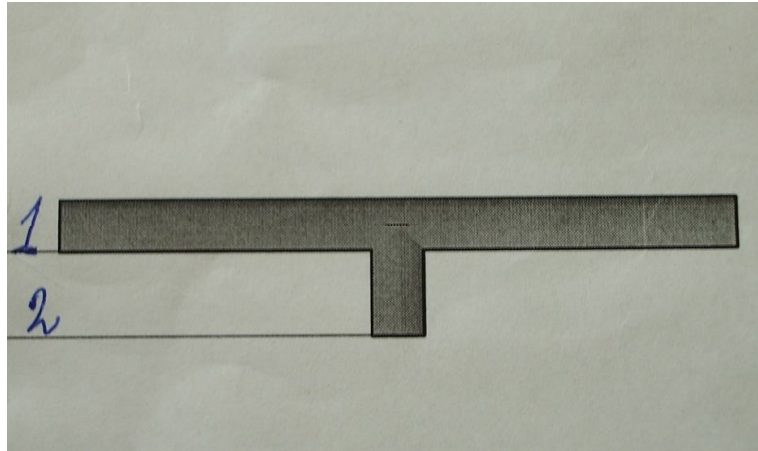


Fig.1. Equipment for determination of surgical approach in zygomatic arch fractures.

Invention essence consists in that: the tool for surgical approach place determination in zygomatic arch fractures consists from a metallic cilindric stainless steel bar with 0,2 cm diameter, with the horizontal part having 0,5 cm length perpendicularly soldered to it (Fig. 1).

The method of surgical approach determination in zygomatic arch fractures

consists in that that in fracture region the proposed tool is fixed to face skin.

The horizontal longer part is applied paralel to it, and the vertical smaller one is applied in the place of maximal breackdown of zygomatic arch fractured fragments and the place for surgical approach is being determined (Fig. 2).

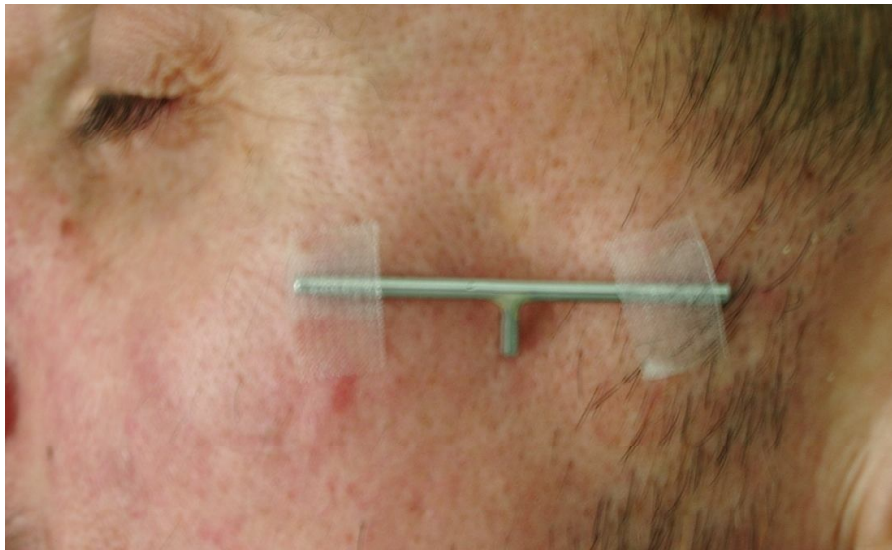


Fig. 2 Surgical approach place determination method in zygomatic arch fracture

RESULTS AND THEIR ANALYSIS

The ensemble statistics of maxillo-facial trauma along five years places the zygomatic complex fractures on the fourth place. Along five years in OMF section were treated 377 patients with zygomatico-orbital complex that comprises 34% of the total accidented with middle third of the face fractures.

We will present a clinical trail. Patient A, was born 1980, addressed on his own to CNPŞDMU on 19.06.07. It has been established that he got trauma palying soccer on 18.06.07. On 19.06.07 he was examined and directed to CNPŞDMU in order to establish the final diagnosis. The patient was examanied clinico-radiologically and the diagnosis has been established as left zygomatic arch fracture with displacement. By the special tool help the zygomatic arch fracture displacement was determined, what confirmed the conclusion about the zygomatic arch displacement and its pressure upon temporal muscle served as a base for surgery performance.

A zygomatic arch repositioning surgery has been performed and a normal function and shape establishment. After

surgery a second zygomatic arch exam has been performed by the help of the tool. Zygomatic arch displacement was missing, that what means normality. There can be confirmed that the surgery took place with succes due to investigation results, with a entire zygomatic arch integrity establishment.

The advantages of the tool and the method of zygomatic arch displacement permits visualization of deformation from lateral and vertical sides, indicates the exact center of the affected region and its skin fixation. Results interpretation: visual deformation determination; materialization with a picture.

CONCLUSIONS

1. Deformation establishment caused by fractured fragments displacement.
2. The determination of the zygomatic arch fractures center.
3. Permits visualization from lateral and vertical views.
4. Doesn't have noxious actoin upon the orhanism.
5. Indicates incision place in case of zygomatic arch fracture reduction.

REFERENCES

1. **Anistoroaci Daniela**, Valentina Dorobăț, Loredana Golovenca. Particularitățile utilizării teleradiografiei de față în diagnosticul asimetriilor. Zilele Facultății de Medicină Dentară. „Concept medical în stomatologie”. Ediția XIX-a, Iași, 2006, pag. 197-200.
2. **Burlibașa, C.** Chirurgie orală și maxilofacială / C. Burlibașa. – București : Editura medicală, 2003. – P. 653-697.
3. **Timoșca G., Burlibașa C.** Chirurgie orală și maxilofacială. Chișinău: Universitas, 1992. Pag. 343-348.
4. **Hîțu D.** Fracturile complexului zigomatic. Curierul medical, Nr. 2, 2006, pag. 69 - 74.
5. **Hull A. M., T. Lowe, M. Delvin, P. Finlay, D. Koppel, A. M. Stewart.** Psychological consequences of maxillofacial trauma: a preliminary study. British Journal of Oral and Maxillofacial Surgery 41 2003, 317-322.
6. **Seth R. Thaller, W. Scott Mc. Donald.** Facial trauma. Florida USA, New York. 2004 pag!!!
7. **Șcerbatiuc D.** Fracturile etajului mijlociu al feței / D. Șcerbatiuc, D. Hîțu, V. Cușnir, A. Dutca // A IV-a Conferință a oftalmologilor din Republica Moldova cu participare internațională. Probleme actuale în oftalmologie. – Chișinău, 2002. – P. 61.