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RESEARCH ARTICLE

BICHECTOMY AS AN ALTERNATIVE TREATMENT FOR FACIAL HARMONIZATION - CASE REPORT.

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Abstract

The bichat ball (BB) was discovered by the French anatomist Marie François Xavier Bichat, who in turn is defined as an encapsulated structure that presents in its content a type of specialized fat, which is located between buccinator and masseter. **Case Report:** Female patient, 22-year-old feoderma, attended at a private dental clinic, arrived with the main complaint that her face had the oval aspect and wanted to perform a surgery for the removal of bichat balls. A physical examination was performed palpating the buccal, infraorbital and zygomatic regions. Subsequently, the patient was informed about this procedure of facial harmonization, highlighting the complications that can arise trans and post-surgical and this is a procedure that does not offer predictability of the outcome. **Final Considerations:** Bichectomy is a surgical procedure of low complexity and presents excellent results in the current pattern of facial aesthetics, however, this procedure must be performed with criteria, as well as the consent of the dental surgeon as noble structures closely related to the place of surgery.

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Introduction:-

The bichat ball (BB) was discovered by the French anatomist Marie François Xavier Bichat, which in turn is defined as an encapsulated structure that presents in its content a type of specialized fat, which is located between the buccinator and masseter muscles. Possessing a function of filling and damping of the muscular structures in the masticatory spaces, and still performing important activity during suction of the newborns¹.

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The BB shows subdivisions through the masticatory space, however only the buccal extension provides the contour of the cheek region, conferring the lateral aspect of the face. In the fossa pterigo-palatina is located the extension that receives the nomenclature of the own one; between the medial aspect of the mandible branch and the medial pterygoid muscle is the pterygoid extension. The temporal extension is subdivided into two portions: a more superficial, located between the temporal fascia and the temporal muscle. In a deeper plane between the lateral wall of the orbit and the frontal process of the zygomatic bone, the deeper portion of the temporal extension².

The surgical procedure for the removal of the bichat ball is performed close to noble structures of the masticatory system, such as: facial vein, facial artery, duct of the parotid gland and facial nerve branches. It is worth noting that the knowledge of the anatomy and surgical skill of the operator is of fundamental importance. The technique is based on an incision of small extension in the buccal mucosa and through the divulsion of the tissues, much of the fat is externalized and later the union of the buccal tissue³.

The bichectomy has been generating discussions regarding its practice in dentistry; although the resolution of the Federal Council of Dentistry n°. 100/2010 and the Federal Council of Medicine n°. 1,536 / 1998 allow the dental surgeon to perform aesthetic-functional procedures in the stomatognathic system. And when dealing with malignant neoplasias and access in the infra-hioidia region, it is merely the competence of medical practice⁴.

The objective of the present study is to present, through the report of a clinical case, a surgical treatment of bichectomy, performed with the intention of promoting a harmonization of the patient's face, as well as a simultaneous symmetry.

Case Report:-

A 22-year-old female patient, attended at a private dentistry clinic, came forward with the main complaint that her face looked oval and wanted to perform surgery for the removal of the bichat balls. A physical examination was performed palpating the buccal, infraorbital and zygomatic regions in order to identify characteristics that allow a greater chance of aesthetic failure in bichectomy. Subsequently, the patient received information about this facial harmonization procedure, emphasizing how the complications that may arise during a surgical procedure and after the surgical procedure; and this is a procedure that does not provide predictability of the result. After the patient was informed of the surgical procedure and the consent of the patient, a follow-up sequence was performed: 2 grams of amoxicillin two hours before the procedure, 8 mg decadron one hour before the procedure, the patient started the mouthwash with 0,12% chlorhexidine for 60 seconds every 12 hours, five days before surgery to reduce the risk of infection; an application of topical anesthesia and infiltrative anesthesia in the jugal mucosa with anesthetic solution of articaine.

The reference site for the incision is the papilla of the parotid duct, since it must be performed below, anterior or posterior (Fig. 1). After the incised tissue, the tissue is divided by planes with vigorous forceps (Fig. 2), when applied to the adipose tissue, another incision is made and about 2/3 of the fat body is removed (Fig. 3); the pedicle that is connected with the other part of the structure has been cut (Fig.4, 5, 6, 7 and 8). Subsequently, the synthesis was performed with absorbable suture yarn Vicryl-Ethicol (E-15) No. 4.0 / 16mm. It is interesting to note that the patient should put an ice pack in the operated area within the first 48 hours after the surgical procedure. Another gram of amoxicillin, Tylex 30 mg (Paracetamol 500 mg + Codeine 30 mg) should be added every 6 hours for 3 days. A support tape was also placed to press the region until the stitches were removed, which is about 7 days, without eating hot food in the first 24 hours, just a liquid or pasty food.

There are countless researchers that evaluate a positive or negative aesthetics of individuals, researchers that observe as characteristics taxed as what is aesthetically pleasing, even what is considered beautiful; is put relative, because when the context of esthetics is portrayed there is a particular opinion of each individual. In this way it is defined as a positive aesthetic when there is no balance and facial harmonization, it is a nature that this compatibility allows what is considered as something that is not beautiful, but is artistic, presenting a production of the emotions by the aesthetic phenomena, taking care of something in sublime quality⁵.

The bulging of the face is characterized as a negative repercussion in aesthetics, since the increase of facial profile convexity is currently considered as an inversely proportional image to beauty; with this, lately, the conical face is characterized by a pattern of social beauty. The mouth, eyes, facial structures, hair and nose, respectively, make up a hierarchical order of face evaluation, so in using this context, it is interesting to mention the proportion of gold or

divine proportion, where most is a real constant arranged by the irrational algebra designated by the Greek letter (Phi), presenting a value with about three decimal places of 1.618; this, in turn, gained an ideal stard because it was able to rely on mathematics to prove whether something was aesthetic or not through analyzes in mathematical sequences⁶.

Steven Marquardt established the history of facial harmonization after the creation of the Phi mask or the Marquardt mask, in relation to an analysis in which he followed the golden measure (Phi) of 1.618. Therefore, he presented a correlation of the base of the triangle with its sides, finding all the favorable aspects of nature; In view of this, the mask uses the golden triangle as standard, in which there is a relation of the greater side by the lesser side of 1.618; thus allowing algebraic calculations, expressing a Vertical Proportion (PV) and a Transverse Proportion (PT) in which they are ideally⁷. Thus, in the PV, if the measure of the outer corner of the mouth is the line of the X, the angle of the mouth for the lower eye line should be 1.618. Therefore, if the angle from the nose to the chin line is Y, the same dimension will be from the angle of the nose to the hairline with a measurement of 1.618. In the same way that the PT of the width measurement of the nose being Z, the mouth measurement will be 1,618; and if the width measured between the two outer corners of the eyes is A, the width of the temples will be 1,618; explaining like this that there is an ideal pattern when working with the Phi mask (Fig. 9)⁸.

An in vivo study by Broccaioli et al. (2013), presented results of great value for scientific community; in which the analysis of the cells of the buccal fat body was developed in a laboratory environment, with the purpose of evaluating its potential of induction the cellular proliferation of some human tissues; in this way, it can be applied as an autogenic regenerative element of the buccal tissues⁹. However, even with the excellent results presented in the research, further studies must be carried out to confirm the aforementioned evidences¹⁰.



Figure.1:- Incision below the parotid duct with 1.5cm extension.



Figure.2:- Divulsion the buccal tissues.



Figure.3:- Tissue divulsion and exposure of the fat body capsule.

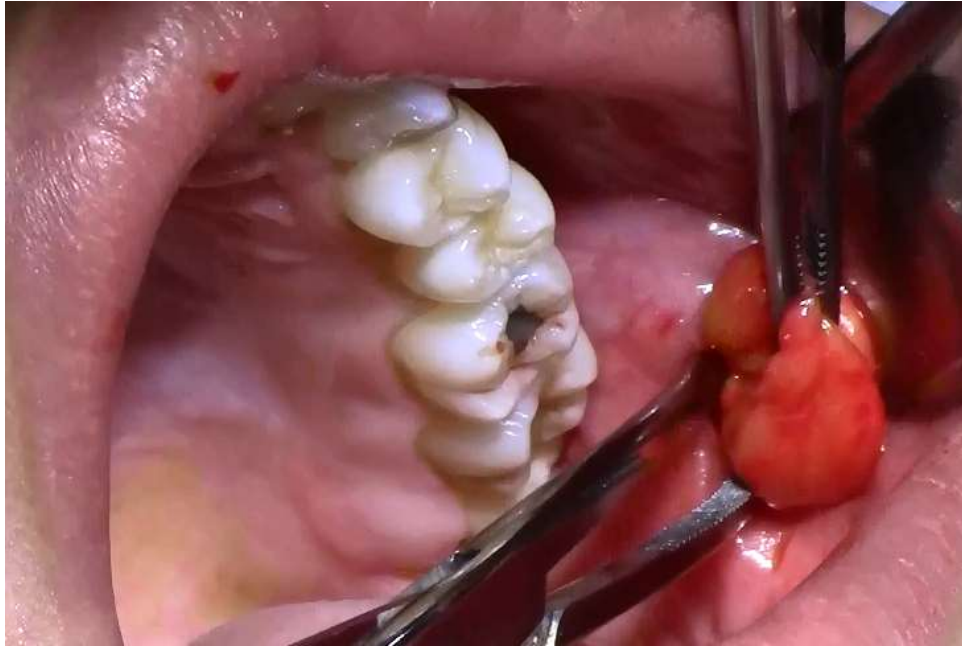


Figure.4:- Bichat Ball Hold.



Figure.5:- Exteriorization of the oral fatty body.



Figure.6:- Determining the ideal volume to be withdrawn.

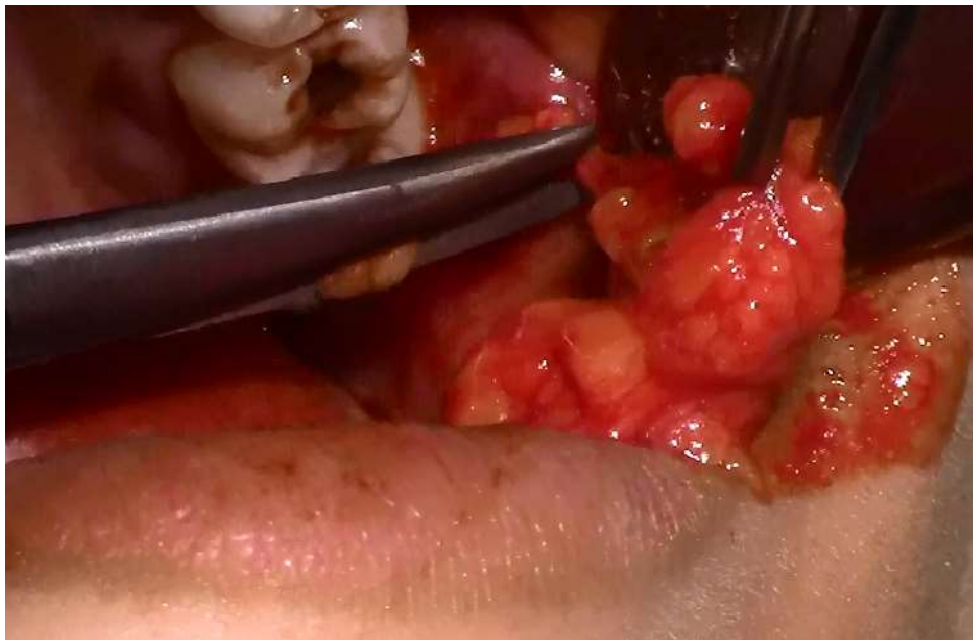


Figure.7:- Removal and sectioning of the Bichat ball pedicle.



Figure.8:- Wound after partial withdrawal of Bichat ball.

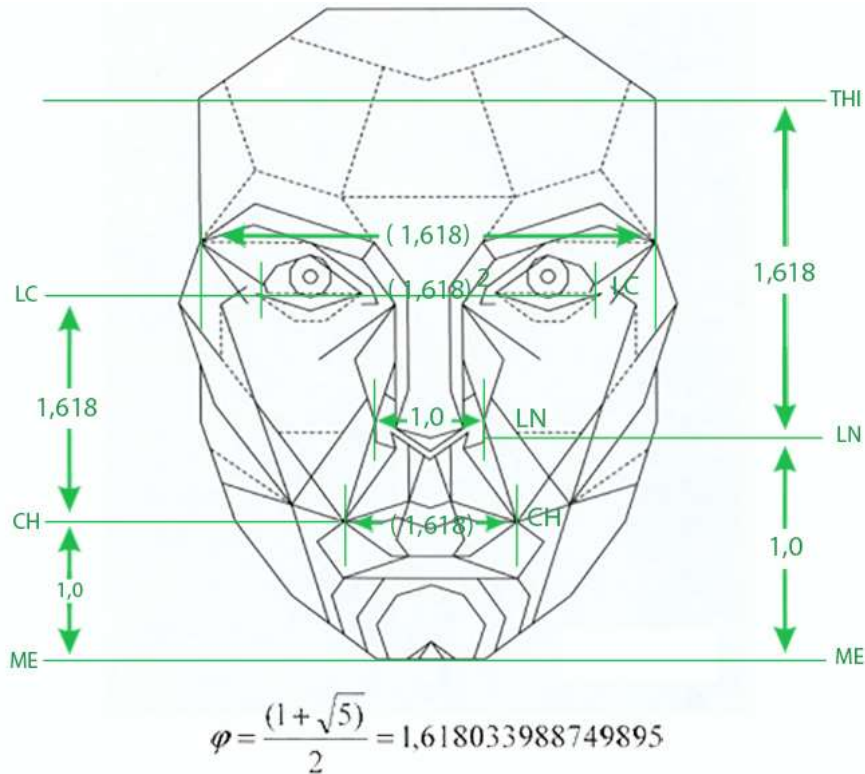


Figure.9:- Marquardt mask (Phi), with data of the ideally vertical and transverse proportion.

Final considerations:-**It can be concluded from this study that:-**

The bichectomy is a surgical procedure of low complexity and presents excellent results in the current pattern of facial aesthetics; however, this procedure must be performed with safety criteria, as well as the dental surgeon's awareness of the noble structures that are closely related to place of surgery. A facial evaluation is essential before performing the bichectomy, also, to make the patient aware that it is a procedure without predictability of outcome, risk-benefit and possible trans and postoperative complications that may occur.

Conflicts of interest:- The authors declare that there are no conflicts of interest.

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