

## EVALUATE THE PSYCHOMETRIC VARIABILITY OF PARTIAL AND BILATERAL SURGICAL REMOVAL OF BICHAT SPHERES

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**Abstract:** Bichectomy is a surgical procedure in which partial resection of the “Bichat Ball” is recommended, which significantly improves the harmony of the face, altering the right third of the face and reduces chronic damage to the oral mucosa due to chewing. The functional objective of this surgical technique is to reduce the chronic bite damage to the oral mucosa, which is caused by the large volume of these anatomical structures and when the bite wound is harmful to the oral tissues, it can cause various pathological lesions. Therefore, the objective of this study was to evaluate the validity of the technique based on the psychometric variability of partial and bilateral surgical removal of Bichat spheres based on a clinical case, proving that the surgery achieves the expected results. The research methodology is characterized as descriptive, exploratory with a qualitative approach.

**Keywords:** Bichat, Cheek, Bichectomy.

## INTRODUCTION

Bichectomy is an aesthetic procedure that is part of the Orofacial Harmonization program (HOF) and is one of the most sought-after treatments by individuals where BGB surgery aims to achieve facial aesthetics with contours that emphasize the angles of skeletal facial features (RODRIGUES 2021).

However, Ahar et al. (2016) together with Rodrigues (2021), this oral fat is an anatomical piece that is partially removed during the intervention and, in addition to the bite, has a close relationship with noble structures such as the facial nerve and the parotid duct.

Today's beauty concepts are focused on the pursuit of a slimmer, more toned face, and several approaches have been created to achieve these goals, including facial liposuction, lipolysis injections, and partial balloon ablation. of Bichat or Bichat Fat (RITTER, 2018).

Bichectomy is a surgical procedure in which partial resection of the “Bichat Ball” is recommended, which significantly improves the harmony of the face, altering the right third of the face. thin and symmetrical and also reduces chronic damage to the oral mucosa due to chewing. (ALMEIDA, 2018).

Bichectomies are intended for functional and mainly aesthetic purposes and have become more common among health professionals. This technique is aimed at people who have some aesthetic or functional change in the middle third of the face, especially those who have greater width in the transverse direction, which gives them excessively rounded facial features, weight and a disharmonious appearance (HERNANDEZ, 2021).

Bichat's fat is located in the facial region surrounded by several important anatomical structures, mainly the facial nerve with oral and buccal branches, parotid duct, facial vein, infraorbital and oral nerves and vessels, facial artery and transverse facial artery. Ignoring these anatomical structures in the oral extension of the oral body during the surgical technique can lead to structural damage and serious complications. (ZHANG, 2001; KLUPPEL, 2018; HERNANDEZ, 2021).

Therefore, the objective of this study was to evaluate the validity of the technique based on the psychometric variability of partial and bilateral surgical removal of Bichat spheres in study participants and the presence of facial visual changes identified in the evaluation.

## METHODOLOGY

The patient J.L.S., female, 33 years old, trader, sought care in my office to carry out an evaluation with interest in undergoing an aesthetic procedure to reduce volume in the cheek region, she reported that she did not like her face because it had a “round” appearance and this caused her It bothered her when

taking photos, the patient also reported that when she ate she frequently bit her cheeks, constantly leaving trauma.

When she carried out the assessment, she had already heard about the surgical procedure called BICHECTOMY and questioned whether it would be the right procedure for her. After the assessment and understanding the patient's complaints, we recommended bichectomy as the most appropriate.

To perform the surgical filling, we requested blood count and blood glucose tests and the results were within normal limits. For anesthesia, we chose to use 3% mepivacaine hydrochloride (MEPISV).

After partial removal of the Bichat ball, pressure was applied to the region, in a postero-anterior direction, to prevent the accumulation of blood and gases in the space left by the Bichat ball. The surgical wound was sutured with size 4 silk thread, requiring only two stitches to suture. The procedure was repeated on the other side in the same surgical sequence after complete completion of the right side.

After completing the procedure, the patient was advised to apply local cold compresses and rest, in addition to maintaining correct oral hygiene and ingesting cold liquid and soft foods for the first 72 hours.

After 90 days post-surgery, the patient achieved the expected result, with a more harmonious face and without continuous trauma to the cheek mucosa.

## RESULTS AND DISCUSSION

The French physician and anatomist Marie François Xavier Bichat histologically analyzed Bichat's ball and described it as a fat located in the oral region anterior to the masseter muscle and lateral to the oral muscle (HASSE, 1994; MATARASSO, 1991; STUZIN, 1990; TOSTEVIN, 1995). It has a mechanical function that facilitates muscle sliding,

providing a slippery and loose environment (MARQUES, 2021).

The Bichat ball can be used to treat oral and maxillofacial communication disorders, showing good results (FARIA et al., 2018).

The bichat ball consists of a spherical mass of fat, encapsulated by a thin layer of connective tissue, and located outside the anterior border of the carotid and masseter muscles (MADEIRA, 2011).

Based on results and studies of aesthetic perception, we see that changes in facial appearance can have psychological consequences, from masking a problem to introversion, which can negate a person's ingenuity. One way to hide the problem is to perform aesthetic procedures that aim to improve dissatisfaction with the appearance of the face. Analysis of the psychometric scale assessed psychosocial distress related to appearance in 21.5% of participants, reflecting questions such as "I am satisfied with my appearance" and "I worry about not looking normal", indicating some level of dissatisfaction. participants indicate when they decide to complete the procedure (KLÜPPEL et al., 2018; MARQUES et al., 2021; MATARASSO, 2006; MOURA et al., 2018; NEVES, 2019; PELISSARO et al., 2021).

The structure is easily and safely found intraorally (MOURA et al., 2018) by making a 1 cm incision under the papilla of the parotid gland (Matarasso technique) in the region of the upper second molar (FAGAN, 2012; JACKSON, 2003; RITTER, 2018). It must be released upon contact to avoid injuries to adjacent structures and without excessive traction (MATARASSO, 2006). Care must be taken to ensure that the aseptic chain is not damaged and the ear salivary duct is not damaged (RITTER, 2018).

The facial artery, transverse facial vein and internal maxillary artery and their anastomoses are vessels that supply oral fat

(KENNEDY, 1988; ZANG, 2001).

The trunk of the facial artery runs diagonally across the face, first above the buccinator and below the zygomaticus major near the corner of the mouth. At this point, it can be cut during the dissection of the buccinator, as it is closely related to it (MATARASSO, 2006).

Thus, hematomas during interventions may be associated with trauma to the lower part of the buccinator branch of the facial artery (EPKER et al., 1990; KENNEDY, 1988). According to ANS n° 387/201521 of 10/25/2015, revoked by RN 28/201722 of 07/11/2017, according to this opinion, bichectomy simply cannot be performed. they have an aesthetic mark.

The result obtained is, of course, inevitably aesthetic, but the dentist must never show it as such. However, art. Article 523 of Chapter II of the Dental Ethics Council recognizes that although the law supports the dental surgeon in performing bichectomy, the legislation is still unclear regarding the limits of action defined by the doctor and dentist. The task of the oral and maxillofacial surgeon is the diagnosis and surgical treatment of diseases of the cranial region and their consequences.

The volume of the Bichat ball removed from the patient in this report was approximately 3 mL, confirming the findings of Klüppel et al. (2018), which states that the volume to be removed must be 2/3 of the total volume, but not greater than 6 ml on each side (KINDLEIN, 2017). Studies have shown that the total volume of the Bichat sphere is approximately 9.6 ml, with no significant differences between the right and left sides and gender (LOUKAS et al., 2006; STUZIN et al., 1990).

According to Hasse and Lemperle (1999), removing 3g from each side is sufficient to improve aesthetics, and only in extreme cases would removing 5g be justified. The procedure refers to the concept of the “inverted triangle of youth”. This concept is defined by the

angular appearance of the face, resulting from a thinner face and a high jaw.

Sangalette (2017) shows in his research that this surgical indication does not extend only to aesthetic reasons, as it is considered a functional aesthetic procedure in the dental system. the procedure changes the shape of the face by reducing volume, which reduces the weight carried by the tissues and consequently weakens it.

Torres et al., (2017) disagree, stating that the surgery is somewhat controversial due to the reduction of adipose tissue in this age and area of the face, which can cause aging, especially when the surgical resection is complete, the authors note that people Those who have undergone this surgery may need facial fillers to recover further. youthful appearance.

Human relationships highlight the ease of contact between a person and their companions thanks to a harmonious face that improves the appearance of the body, brings well-being in its broadest sense, a reason that influences the increase in the search for aesthetic procedures. (FEITOSA et al., 2010).

Self-perception of facial attractiveness can influence personality and social interaction and is correlated with extroversion and self-confidence, which are also related to emotional stability and self-esteem (VAN DER GELD et al., 2007).

According to Filho (2017), reports of complications or accidents during the surgical procedure are rare, although injuries to the Stensen canal can occur, which can manifest as mucous or salivary fistulas and damage to the oral branch of the facial nerve, which manifests itself in temporary numbness of the long maxillary nerve.

Silva and collaborators (2018) found no contraindications for bichectomy in 2017, despite the scarcity of studies on the topic. However, they recommended that the patient

be over 18, healthy, non-smoker, and realistic about their goals. They also observed that the middle third of the face extends from the supraorbital region to the base of the nose. It therefore includes relevant locations such as the nose and the zygoma-malar projection where the volume of the face is greater.

Trans- or postoperative complications occur with the operation under study and are minor compared to the benefits of the procedure for patients, such as edema and facial paresthesia (average of 0.62).

The combination of possible adverse effects and knowledge of the relevant anatomical region allows for a better indication and application of the surgical technique, with the aim of confirming the bichectomy, obtaining aesthetic improvement in this patient, although based on subjective and reductive perception. heartburn in the mucous membrane of the cheek due to a decrease in the visible volume of the middle third of the face.

Patients with large cheeks and cheekbones and bones in good physical condition are ideal candidates for bichectomy surgery (HASSE, 1994; MOREIRA JÚNIOR, GONTIJO, MOREIRA, 2018; STEVAO, 2015). After the operation, the zygomatic arch is emphasized, the cheek becomes more curved and the patient's face becomes more harmonious.

Patients with hypoplastic zygomatic disease must not undergo this procedure (Hasse and Lemperle, 1999). For functional reasons, patients with frequent chewing of the oral mucosa may also undergo surgery (JAEGER et al., 2016). In this case, the patient in this report had an aesthetically functional indication for bichectomy.

Throughout this study, we explored aspects of bichectomy as an aesthetic procedure that have become important in the field of orofacial realignment. Analyzing the clinical case of a young patient with leukoderma, we were able to observe the promising results

that this procedure can produce. The clinical case presented illustrates the aesthetic change that the patient experienced after bichectomy. Strategically reducing the size of Bichat's bag resulted in a more defined face shape and a more harmonious look.

The volume of the Bichat ball taken from the patient in this report corroborates the study by Klüppel et al. (2018), who reported that the volume removed must be equivalent to 2/3 of the total volume.

The procedure not only achieved the desired aesthetic objectives, but also had a positive effect on the patient's self-esteem and self-confidence, emphasizing the psychosocial aspect in relation to facial aesthetics. The safety and success of bichectomy, demonstrated in this case, are directly related to the specialist's ability to evaluate each patient individually, taking into consideration, facial anatomy, expectations and general health.

Continuous advances in science and multidisciplinary collaboration promote increasingly informed clinical practice, benefiting both professionals and those seeking to improve their facial appearance in a safe and reliable way.

## FINAL CONSIDERATIONS

Bichectomy, intraoral surgery for partial resection of the Bichat ball, has been frequently requested in dental offices, and it is important for the professional to be trained to achieve success in the procedure.

The procedure is a safe and effective option when used responsibly and judiciously, as well as evaluated and planned individually for each patient. Therefore, the dentist, specialist in orofacial harmonization, must have a detailed understanding of the procedure for correct application.

As it is a procedure with relatively favorable safety, but techniques, even if minimally invasive, can cause undesirable adverse effects

that will only be alleviated if the professional has perfect control over facial anatomy and its risk areas.

In the present clinical case report study, a reduction in the volume of the cheeks and an improvement in the patient's facial contour were observed. On the other hand,

it is necessary to have a broad anatomical knowledge of the region and the surgical technique. Therefore, it is suggested that more studies need to be carried out in order to standardize the assessment for a correct and assertive indication of the procedure.

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