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Research Article

Changes In The Aesthetic Vertical Dimension Under The Therapy Of Facial Adipostructuring Avoiding Facial Bone Transplantation A Multicenter Analysis.

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ABSTRACT

This research analyzes the changes in the aesthetic vertical dimension only in the measurement of the subnasal point to the chin after facial adipostructuring therapy, under an observational, prospective, longitudinal and multicenter study in a sample of 13 patients between 29 and 70 years of age, where a careful selection based on specific clinical criteria was included. For the procedure, the technique was performed on the superficial adipose panniculus and interseptal spaces with the Facestructure kit for reorganization and replacement through cannular management avoiding facial bone transplantation. Its effects were evaluated through the use of pre and postoperative photogrammetry, recording significant changes in the structures of the facial thirds, in addition to the variations obtained in the measurement of the aesthetic vertical dimension. Denoting that there were 6 cases with variations of 1 mm (46.15%); 5 cases of 2 mm (38.46%) and 2 cases of 3 mm (15.39%); without complications. This research contributes to scientific and clinical knowledge, demonstrating that the technique represents an effective and safe approach to improving facial aging and restoring the biomechanical conditions of facial adipose compartments, thereby creating greater antigravity forces in the tissues and improving clinical parameters, including the height of the aesthetic vertical dimension from the subnasal point to the chin. In conclusion, facial adipostructuring represents a modern and effective approach to orofacial harmonization that favors natural tissue repositioning. When integrated, this approach posits what we call intelligent orofacial beauty.

Keywords : *Facial Adipostructuring, Diagnosis, Adipose Tissue, Aging, Aesthetic Vertical Dimension.*

INTRODUCTION

Within orofacial harmonization, aesthetic planning is based on the individual analysis of each patient in all their processes, from aging, anatomy, cephalometric analysis, proportions, volume, visible deformities, among other aspects [1]. The diagnosis is the basis for the success of the treatment. For this, the clinician must have at their disposal different tools that contribute to the study and planning; predominating facial measurements [2]; which will allow quantifying the lack of facial harmony and identifying its causes.

In this regard, recent years have seen a significant increase in the number of non-surgical facial rejuvenation procedures, as patients seek alternatives to restore lost facial volume, enhance facial features, and correct facial asymmetry.

Therefore, a good understanding of the pathophysiological mechanisms related to age will allow specialists to improve their approach and techniques for facial restructuring. It is imperative to understand aging as a biological process resulting from the gradual reduction in the structural and cellular components [3] that will cause changes in the skin, skeleton, and subcutaneous soft tissue. This, in turn, produces loss of volume and ptosis of facial structures [4].

Raising, that the analysis by thirds is essential, in order to be able to provide a solution for each of them, since not all of them age at the same time. Not only evaluate the pathognomonic clinical signs, but also the proposed parameters to determine if they are moving away from the ideal shapes and proportions, in this case morphometry [3]. Objective facial measurements being a useful tool in the analysis of the anatomy of the facial surface that include distances, relationships, proportions and lines, which allow an objective evaluation of the face before and after treatment and, ultimately, improve and standardize treatments.

Making it clear that patients who come to facial harmonization treatments are generally accompanied by a typical clinical

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semiology such as deflation, lipomatosis, lipodystrophy or all of them together in the same face of the patient [5]. So, understanding all these structural changes will allow the specialist the ability to make decisions as is the case of the Aesthetic Vertical Dimension which is a facial measurement that allows the predictive calculation of the position of facial structures from a measurement of the nasal base to the chin which must be compared with the measurement of the Tragus to the edge and must coincide [5].

Given the above conditions and in response to these biological events, in this research facial adipostructuring has been considered the approach treatment as a non-invasive and personalized technique for facial rejuvenation; which uses a series of manual maneuvers aimed at reorganizing facial fat, restoring lost volume and naturally improving facial contours in a more harmonious way [6].

In this research, a sequence of cases is presented in which the Therapy is applied to verify the changes obtained in the aesthetic vertical dimension only from the subnasal point to the chin after its application, with prior diagnosis, managing the anatomical and biomechanical principles of the face with a comprehensive approach, to improve symmetry, naturalness of the results, and reduce risks [7].

Therefore, from the methodological point of view in the search for knowledge necessary to carry out the research, it is framed within an observational study with clinical case reports, prospective, longitudinal and multicenter. These are used to analyze specific cases in depth and detail, where the inclusion and follow-up of patients is involved, using a common and standardized protocol, to finally carry out a centralized analysis of the data.

LITERATURE REVIEW

Diagnosis based on morphogeometric changes experienced in the face, measured by the application of facial stratigraphic semiology by thirds, is an approach that guarantees the efficient replacement of aged tissues through aesthetic medicine strategies or non-surgical orofacial harmonization.

Knowing that facial aging is a complex and multifactorial process approached from various medical specialties. Its pathophysiology involves gradual changes in several anatomical structures, including skin, adipose tissue, muscles and bones. Along with the loss of collagen and elastin, which causes a reduction in elasticity and the appearance of wrinkles or rhytides. In turn, the production of hyaluronic acid decreases, affecting hydration, adipose tissue is redistributed, losing volume, especially in cheeks and temples. And at the bone level, a gradual resorption of the bone occurs, affecting the contours [8].

Therefore, in facial clinics, deflation may predominate, which is associated with the descent of facial structures, that is, a sagging “only of the skin” [9]. Next, lipomatosis characterized by the displacement and / or increase of facial volumes due to subcutaneous or deep fat; which can be classified according to the number of panniculums present at facial level: grade I when 1 to 2 panniculums are clinically evident, grade II when 3 and 5 are present and grade III 6 or more [9]. Lipodystrophy characterized by an abnormal loss of subcutaneous fat that primarily affects the middle third of the face [10]; which generates a series of representative characteristics such as: flattening of the malar and temporal areas. And finally, glycation, which is understood as a spontaneous reaction of blood glucose with dermal collagen and elastin fibers [11].

Without leaving aside oxidative stress, which explains the increase in the inflammatory process through the nuclear factor kappa, which is known today as “Inflammaging”. That is, the inflammatory state characteristic of aging associated with chronic exposure to antigens, both endogenous and exogenous origin, and stress [12].

Given these approaches, the protagonist that makes up this entire study is the “facial adipose tissue”, which is very heterogeneous, both in terms of its cellular composition and its anatomical arrangement, which is composed of mature adipocytes immersed in a collagen matrix where mesenchymal stem cells, preadipocytes, nerve terminals and vascular tissue also reside, which as a whole is called the vascular stromal fraction (VSF) [13]. Therefore, it is currently of greater relevance due to its influence on gravity and laxity, and because it is integrated with all layers of facial anatomy.

This being the case, treatments should be prioritized according to the needs of each third: upper, middle, and lower. Without neglecting the needs and expectations of the dental client-patient, which is defined as the user who requests and receives oral health services that include diagnosis, treatment, and prevention of diseases of the stomatognathic system to accommodate altered functions [14]. Specifying that, structural analysis, applied symptomatology, together with mathematical measurements and universally standardized lines at some points and planes as references allow the predictive calculation of the initial position of the facial structures.

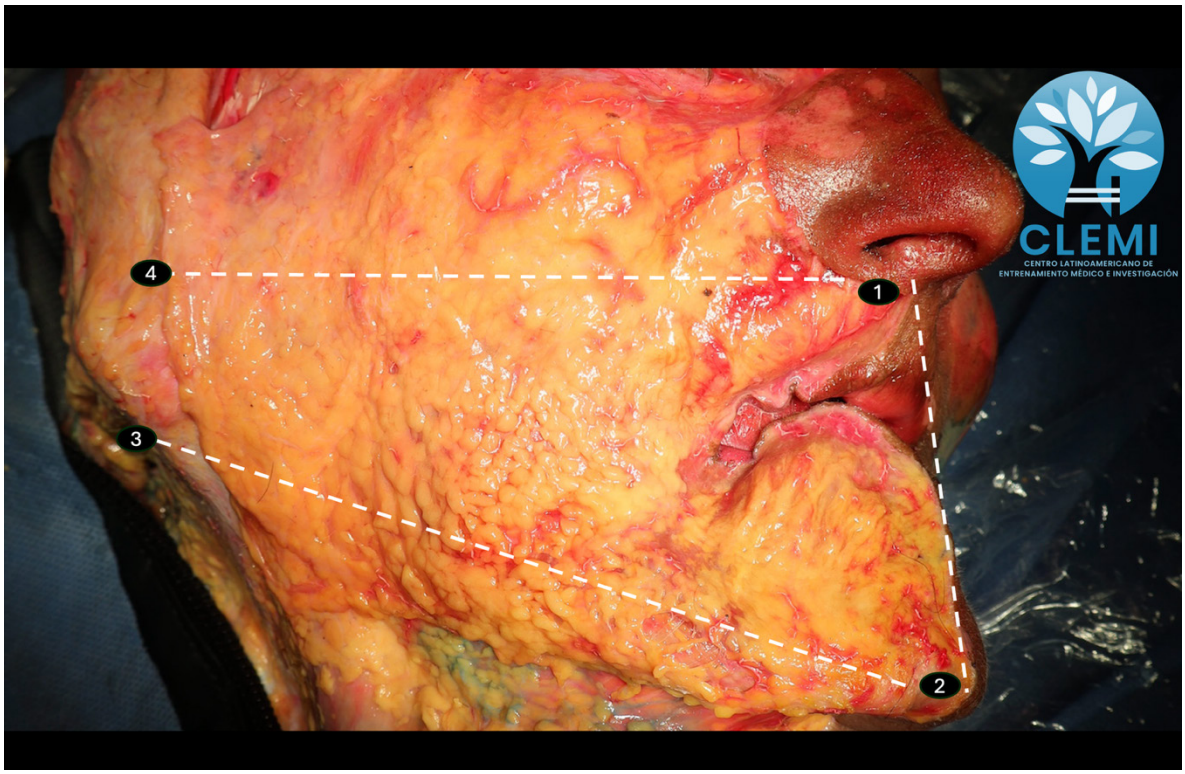
The aesthetic vertical dimension (AVD) is predominant in this study, allowing for a reconsideration of the original youthful facial proportions, reflecting lip volume, profile shape or smile line, natural folds, and the unique shape and size of the teeth. The degrees of aging of the lower third vary according to the patient and their diagnostic parameters, and are also directly proportional to the aging of the facial complex [3].

Specifically, it is obtained from the distance between an individual’s maxilla in the frontal plane, as the measurement of anterior facial height, taken between two randomly selected and conventionally located points, coinciding with the midline, one in the upper jaw (acanthion) and another in

the mandible (chin). According to the above, the distance between these two craniometric points projected onto the soft tissue determines the degree of aging of the lower third [3,15].

Making it clear that the aesthetic vertical dimension is defined as the distance between the nasal base and the chin, which must be comparatively equal to that between the pretragal area and the external corner of the eye, considering that if both readings do not coincide, we will have a patient with a greater or lesser degree of aging [3] as we can see in Figure 1. Clinically, when the following is decreased, it is reflected: 1. Loss of labial projection; 2. Loss of horizontality of the labial commissures; 3. Drooping of the nasal tip; 4. Mental eversion; 5. Opening of the nasal wings; 6. Deepening of the nasolabial groove; 7. Prediction of the degree of bone aging and therefore of labial aging. Meaning that this alteration is a motion to treat all these elements.

Figure 1. Superficial anatomical dissection of the lower third of the face, showing points 1 (nasal base), 2 (chin), 3 (gonial angle), and 4 (pretragus), which form a scalene for measuring vertical dimension. Latin American Center for Medical Training and Research CLEMI Bogotanos Colombia



In this purpose, the relevance of clinical observation, the use of photogrammetry that allows standardized two-dimensional facial analysis to measure distances, angles, indices or proportions, and is usually performed indirectly in standardized photographs taken from the front, in profile and at an oblique angle that must be related to an adequate scale to compare the measurements obtained in the photograph with the real scale [16]; complemented by the analysis of the occlusal factors and the aesthetic facial characteristics of the patient measured in facial stratigraphic semiology guarantee the efficient replacement of tissues through strategies contemplated in harmonization, in order to achieve a rearrangement of them, and thus, generate a pleasant social acceptance of the resulting changes in facial rejuvenation [17].

Based on these principles, the technique that aims at the therapeutic approach of facial fat compartments with the purpose of promoting their restructuring based on the stimulation of mechanical and chemical activity, to contribute with elements that allow greater support of the tissues supported by the stimulation and conformation of a strong retinacula cutis with greater antigravity potential, is called Facial Adipostructuring [18].

Defined by its creator as “a technique aimed at the panniculopathic reorganization of the facial fat compartments according to their structure, physiology and biomechanics, without extracting them under any circumstances” [19]. In this sense, the destruction of tissues is not sought under any circumstances, but rather a cellular stimulus that allows the organization mechanisms in a physiological way, avoiding the alteration of the tissue.

This makes possible the entry into a new clinical vision called intelligent rejuvenation. Currently representing a safe and effective modality for the therapeutic approach of facial adipose compartments. Allowing, in orofacial harmonization, balance is obtained when the upper, middle and lower

thirds of the profile are adjusted, as well as the contralateral hemifacial symmetry [20]. This is why it becomes absolute to know what happens to the tissue in order to have the scientific basis to assert that this technique is focused on cellular structuring and organization, being able to generate volumetric and longitudinal changes without performing grafts.

METHODOLOGY

A prospective, longitudinal, observational study was conducted on 13 female patients, aged 29 to 70 years. The clinical evaluation was performed by PhD. Angela Herrera in the city of Valencia, Carabobo State, Venezuela, between March 2024 and June 2025. Their reason for consultation was "dissatisfaction with visible signs on their face." After a detailed clinical facial analysis, the following were diagnosed: deflation, loss of facial contour, presence of dark circles, hyperpigmentation, frontal and glabellar rhytides, lipomatosis, and in some cases lipodystrophy and glycation, making them perfect candidates for the study sample.

Before starting the Facial Adipostructuring sequence, the 13 patients were verbally interviewed to ensure that they met the following inclusion criteria for the procedure and to complete their medical history, in which they were asked the following questions: a) not having undergone any orofacial harmonization treatment in the last 12 months; b) no skin lesions; c) not being pregnant or breastfeeding; d) not suffering from medical pathologies or being under medical treatment; e) not presenting immunological problems; e) not having a history of cancer; g) not having synthetic materials in the facial or neck region, such as metal implants or non-absorbable fillers.

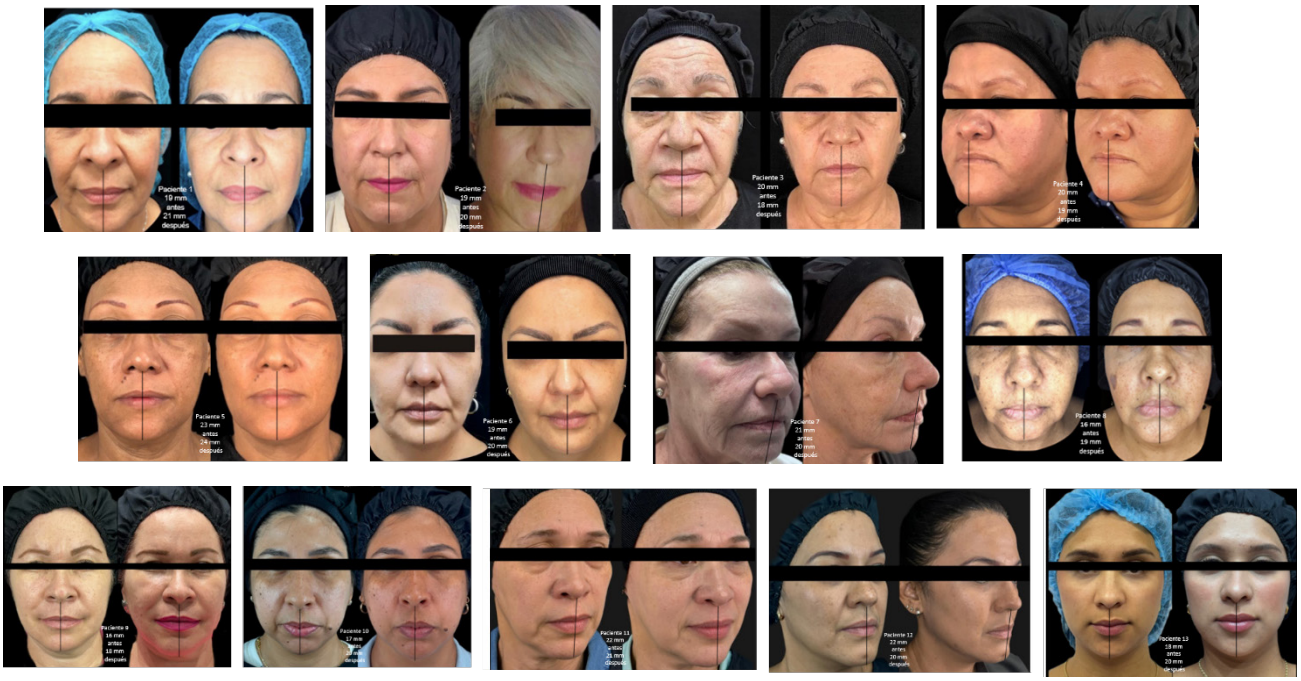
After the clinical interview, each step of the facial adipostructuring procedure, the benefits obtained, and the necessary care were explained. To complete this stage, the patients signed the informed consent form with all the information gathered during the interview, confirming their understanding of the procedure, potential risks, and results. Likewise, photographs were taken before and after the procedure, both from the forehead and at a 45° angle. This process was repeated after the third session to verify the effects and evaluate morphofunctional changes. Aesthetic vertical dimension measurements were continuously taken on the patients before and after applying the technique, from the subnasal point to the chin only.

MATERIALS AND APPLIED TECHNIQUE

Twenty-six half-faces and 39 thirds were treated; they underwent 3 sessions with intervals of 15 to 21. To perform the technique, 22G and 25G x 50mm cannulas were used according to the established diagnosis for the superficial fat pads and 27G x 50mm for the ligaments and interseptal spaces in 1 ml syringes loaded with the senolytic active ingredients from the Mioface FACESTRUCTURE Kit. The therapy was carried out in the following steps: 1.- asepsis with 70 alcohol solution and subsequent marking (face Paint). 2.- Access perforation with a needle corresponding to the 22G or 25G cannula, then, the cannula was introduced, working the superficial adipose compartments with mechanical stimulation through its three manual stages, of three to five movements per vector generated in each panniculus, to finish with the deposit in retroinjection of the selected senolytic principles. 3.- Once the adipose compartments were finished, we proceeded to enter the interseptal spaces by opening with the needle corresponding to the 27G cannula, and subsequently the cannula without making movements, depositing in retroinjection the corresponding active ingredient. 4.- Finally, a Farmatodo Aquagel Moisturizing Facial Cream with Hyaluronic Acid B5 x 40 gr was applied. Aquagel is a hydration bomb with antioxidant and repair power for daily use. It contains Hyaluronic Acid, Seaweed (Fucus Vesiculosus) and Aloe Vera. Its texture is easily absorbed, leaving no greasy feeling. Thanks to its natural active ingredients, it provides a restorative and radiant effect.

For continuity, measurements were taken in the 13 patients after the third session to evaluate the variations obtained from the subnasal point to the chin (see cases 1-13).

Figure 2. Clinical cases. Height measurement from the subnasal point to the chin in 13 patients (before and after application of the Facial Adipostructuring technique).



Source: Herrera, 2025

RESULTS

Regarding this, after the three facial adipostructuring sessions with the Facestructure kit, the author, a specialist in the area of harmonization and an expert in Facial Adipostructuring, verified the variations obtained in the measurement of the subnasal point to the chin (See table). Six cases were presented with variations of 1 mm (46.15%); five cases of 2 mm (38.46%) and two cases of 3 mm (15.39%). It should be added that none of the patients presented complications and no signs of inflammation or skin allergies were found. Nor were there any infections. Side effects were mild and consisted of tenderness to the touch in some areas or small bruises at the entrance of the bevel of the needle when making the opening.

Table 1. Vertical Dimension Variations (Measurement from subnasal point to chin),after the 3 sessions of Facial Adipostructuring.

Patient	Before	After	measurement variations
1	19mm	21mm	2mm
2	19mm	20mm	1mm
3	20mm	18mm	2mm
4	20mm	19mm	1mm
5	23mm	24mm	1mm
6	19mm	20mm	1mm
7	21mm	20mm	1mm
8	16mm	19mm	3mm
9	16mm	18mm	2mm
10	17mm	20mm	3mm
11	22mm	21mm	1mm
12	22mm	20mm	2mm
13	18mm	20mm	2mm
			6 cases 1mm 46.15%
			5 cases 2mm 38.46%%
			2 cases 3mm 15.39%

Source: Herrera (2025)

DISCUSSION

It is becoming evident that our understanding of the facial fat compartments in terms of their anatomical location and age-related changes has increased further [21] . Their main age-related modifications, as revealed by many studies based on cadaver dissections and clinical experience, have shown that both superficial and deep fat compartments provide the real structural support for the face [22].In this sense, the findings obtained after the third session of the technique demonstrate that it is an effective and safe modality for improving facial aging and restoring the biomechanical conditions of facial adipose compartments, thereby creating greater antigravity forces in the tissues. This is due to the reinforcement of the internal structural support of this system (pericellular and intercellular fibers and intercompartmental septa). This reaffirms more balanced and satisfactory results, both aesthetically and functionally. In other words, biochemically and mechanically, the therapeutic proposal demonstrates significant value in improving conditions and reducing the stigmatic signs that appear with age, including an increase in dermal thickness and density, favorably changing the physical appearance of patients. Its effectiveness on changes in morphofunctional parameters has been verified. Thus, it is an alternative that seeks not only to improve the balance and harmony of the three facial thirds, but also to optimize the restoration of the aesthetic vertical dimension from the subnasal point to the chin. Although its modification depends on several factors, facial harmonization refers to the restoration of lost lower facial height.

Therefore, anthropometric measurements can serve as a tool for the objective analysis of facial surface anatomy, which must always be combined with subjective assessment and, above all, with the patient's needs and desires. However, it requires not only knowledge but also analytical skills to formulate treatments based on an objective diagnosis and scientific evidence.

Conclusion

Definitely, advanced knowledge of facial anatomy as set forth [23], is essential to ensure safety and effectiveness in the application of techniques. This reflects that the facial adipostructuring technique achieves more precise and personalized results, minimizing risks and maximizing naturalness. Allowing to affirm that metabolic induction in facial fatty tissue accompanied by fibrillar stimulation favors tissue repositioning. That is, the therapeutic approach to improve the conditions of aging represents an alternative philosophy based on intelligent rejuvenation that not only improves the aesthetic appearance, but also influences measurable clinical parameters, allowing to effectively modify the height of the aesthetic vertical dimension influencing the self-esteem and emotional well-being of patients. This asserts that the positive perception of personal image reinforces confidence and generates a significant impact on interpersonal relationships and quality of life.

In conclusion, by integrating this entire system we can achieve what is postulated as intelligent orofacial beauty, which is defined by [24] as the harmonious and symmetrical balance provided to the complex organs that make up the orofacial system, such as the nervous, anatomical and physiological unit located in the cranio-cervico-facial territory, constituted by its different structures, which will allow us to achieve large doses of perfection based on the stimulation of cellular rhythm by means of intelligent products and technologies that are both minimally invasive and multifunctional, in order to combat the causes of aging under a philosophy based on preventing, correcting and preserving.

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