

Case Report

The Inverted Easel: A Novel Technique for Mento-Labial Harmonization Using Hyaluronic Acid Filler

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Abstract

Facial harmonization of the lower third is essential for achieving proportionate, youthful, and natural aesthetic results. Conventional filler techniques for this region often rely on bolus injections that may overcorrect the mental fat pad, leading to projection irregularities and compromised outcomes. This study introduces the "Inverted Easel" technique, a novel and minimally invasive method for mento-labial elongation using hyaluronic acid (HA) filler. The approach emphasizes anatomical precision through vector-based filler distribution to safely enhance vertical dimensions without volumetric excess. Nineteen patients underwent treatment with a single-entry cannula technique using UP Deep®, a biphasic, high-density HA filler. Retrograde linear threading was performed along four radial vectors originating from a central chin point—two medial and two lateral—creating a scaffold that mimics an inverted easel. No bolus injections were used. Facial assessments were conducted with Quantificare® 3D imaging software, measuring changes in mento-labial distance and lower third facial height at baseline and 30 days post-treatment. Of the 12 patients with complete imaging data, 10 demonstrated measurable improvements, with an average increase of 1.76 mm in mento-labial distance and 1.86 mm in lower third facial height. No serious adverse events were reported. Minor side effects, including transient edema and erythema, resolved within 72 hours. Patient-reported satisfaction was high, with 90% rating the outcome as "very satisfied" according to the Global Aesthetic Improvement Scale (GAIS). The Inverted Easel technique provides a safe, reproducible, and anatomically respectful strategy for lower facial harmonization. Its refined injection design enhances structural support while minimizing risks of overcorrection. These results suggest that the method is well-suited for subtle yet impactful lower face elongation, particularly in patients seeking balanced, natural results.

Keywords

Lower Face, Mento-labial, Hyaluronic Acid, Harmonization

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1. Introduction

The effects of aging and environmental factors on facial fat and skin have been well established in the scientific community. Non-surgical procedures and preventive approaches are increasingly preferred for addressing these concerns [1, 2]. Dermal fillers, particularly hyaluronic acid (HA) fillers, have gained popularity due to their ability to restore facial volume and rejuvenate the skin. Their ease of implantation, rapid recovery, immediate outcomes, and low risk of allergic reactions contribute significantly to their widespread use [3].

The lower third of the face plays a crucial role in aesthetic balance and is closely associated with youthful appearance and sexual dimorphism. According to Braz and de Paula [4], reshaping this region using fillers can restore ideal facial proportions and positively influence perceptions of beauty and confidence. The chin and jawline serve as key landmarks for both gender identity and emotional expression in facial aesthetics. Despite the increasing popularity of midface treatments, the mento-labial region often remains under-addressed in harmonization protocols.

A thorough aesthetic analysis coupled with individualized treatment planning is crucial to achieving proportional harmony and mitigating negative emotional expressions such as sadness, fatigue, or anger. The MD Codes™ approach, introduced by de Maio [5], systematically categorizes facial treatment zones and their associated emotional attributes, guiding harmonization techniques with injectable fillers. This structured approach markedly improves both the safety and predictability outcomes for aesthetic interventions in the face.

The morphology of the lower face significantly influences facial attractiveness, with specific angular relationships influencing being associated with perceptions of beauty. Factors including aging, soft tissue volume loss, decreased skin elasticity, lip proclination, and osteo absorption can affect the mento-labial area, resulting in a shortened appearance of the lower third of the face [6]. Detailed anatomical and aesthetic assessment of this region is thus critical for comprehensive facial harmonization. Despite its importance, the lower face is often overlooked compared to the mid-face, underscoring the necessity for more targeted and individualized approaches to mento-labial enhancement.

The most commonly utilized technique for elongation of the lower third involves the supraperiosteal bolus injections of fillers at the medial lower margin of the mandible, directly beneath the mental protuberance. However, some patients may experience chin ptosis after a few weeks, accompanied by slight retroversion – a phenomenon colloquially known as a “witch chin”. This issue, particularly noticeable in lateral views, is likely attributable to overfilling of the mental fat pad [7] (Figures 1 and 2).

The objective of this study is to introduce and describe the "Inverted Easel" technique as a novel approach for mento-labial elongation using hyaluronic acid fillers. The efficacy

of the technique is evaluated through digital images measuring the mento-labial distance and the length of the lower third of the face before and after treatment.

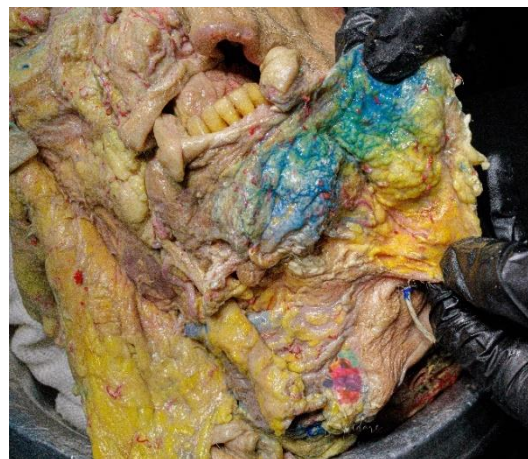


Figure 1. The image presents an anterior view of the chin region, highlighting the extension of the mental fat pad in blue. This fat compartment, located within the lower face, holds significant anatomical and functional importance, particularly in aesthetic and surgical interventions. The illustration is courtesy of Instituto Lapidare.

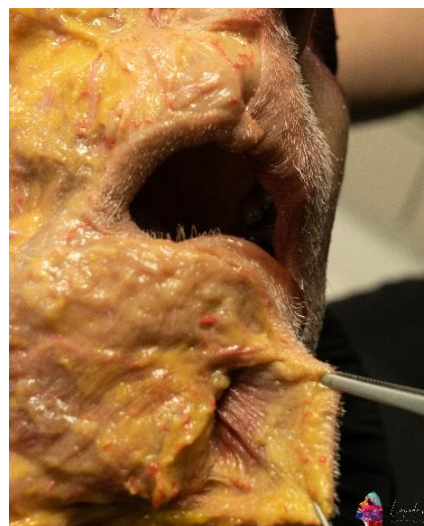


Figure 2. The image illustrates the extension of the mental fat pad, stretching from the chin to the submental area. This anatomical structure is relevant in aesthetic and surgical analyses, as it significantly influences facial contour and overall harmony. Illustration courtesy of Instituto Lapidare.

2. Materials and Methods

This paper presents a new approach for lower face harmonization, with a specific focus on the mento-labial region. A total of nineteen patients (18 females and 1 male), aged 28 to

81 years (mean age: 53.89 years), were evaluated before and after the procedure (immediately and 30 days post-procedure) using a 3D imaging system (Quantificare®). All procedures were performed between August and September of 2022 at a private clinic setting. Mento-labial distance and lower third height were assessed using dedicated software.

Each patient underwent a single session of hyaluronic acid filler injection. The filler used was UP Deep (Ilikia, CG Bio, Korea), a multi-layer, biphasic HA dermal filler (20 mg/mL with 0.3% lidocaine) [8], selected for its favorable rheological properties and particle size, making it well-suited for the mento-labial area [9].

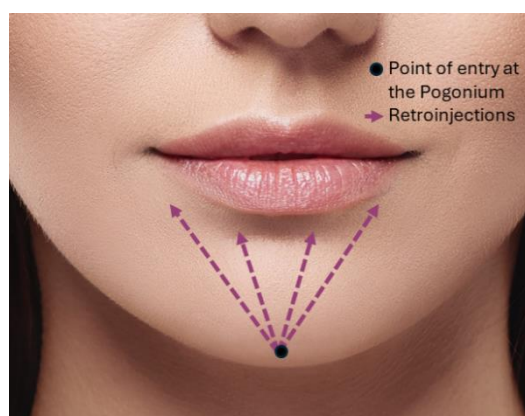


Figure 3. The schematic illustrates the injection plan for mento-labial elongation using a single cannula entry at the chin. The technique consists of four injection lines: two directed medially and two towards the lateral corners of the lips, allowing for a harmonious distribution of the filler.

The technique involves marking a single-entry point at the lowest point of the chin. From this point, four radial injection vectors are outlined extending from the chin to the lower lip

line: two medially toward the central lips and two laterally toward the oral commissures (Figure 3).

Following local anesthesia with 1% lidocaine, an entry point is created using an 18G needle, followed by insertion of a 22G cannula into the subcutaneous plane. The filler is retro-injected at a rate of 0.05 mL per line, totaling an average of 0.2 mL per patient.

The goal of the technique is to elongate the lower face by constructing a triangular support structure using four vectors of HA filler, mimicking an inverted easel configuration. This strategic design effectively supports the mento-labial region. Demonstration of the Inverted Easel technique, showcasing the injection method for mento-labial elongation, is presented at the supplement material of this article.

Precise use of anatomical landmarks and a standardized injection technique ensures accurate placement of the hyaluronic acid filler, leading to optimal outcomes in lower face harmonization. Digital images obtained with Quantificare® software were used to measure the mento-labial distance (from the labial rhyme and to the pogonion) and the length of the lower third facial height (from the nasal base to the pogonion).

3. Results

All patients demonstrated satisfactory outcomes. Among the 18 treated patients, 12 had suitable imaging for analysis via Quantificare® software. Of these, 10 individuals exhibited a significant increase in mento-labial distance, contributing to enhanced lower third facial harmony.

Mento-labial distance increased by a range of 0.52 mm to 4.16 mm (mean elongation: 1.76 mm), while the length of the lower third facial increased by 0.05 mm to 3.43 mm (mean increase: 1.86 mm) (Table 1).

Table 1. Table displaying patient data including sex, age, and pre-/post-treatment measurements of the mento-labial length and lower third height.

Patient #	Skin type	Age	Sex	Pre-treatment mento-labial distance	Post-treatment 30 days mento-labial distance	Difference between pre- and post- mento-labial distance	Pre-treatment lower third height	Post-treatment lower third height	Difference between pre- and post- lower third height
1	V	69	F	x	x	x	x	x	x
2	V	53	F	37.53 mm	37.12 mm	0.41 mm	60.88 mm	60.37 mm	0.51 mm
3	I	57	F	46.34 mm	45.67 mm	0.67 mm	72.77 mm	73.79 mm	1,02 mm
4	I	63	F	x	x		x	x	
5	III	81	F	44.78 mm	45.99 mm	1.21 mm	72.11 mm	73.10 mm	0.99 mm
6	III	61	F	41.56 mm	43.20 mm	1.64 mm	67.26 mm	69.70 mm	2.44 mm
7	IV	67	F	34.26 mm	38.39 mm	4.13 mm	57.57 mm	59.04 mm	1.47 mm

Patient #	Skin type	Age	Sex	Pre-treatment mento-labial distance	Post-treatment 30 days mento-labial distance	Difference between pre- and post- mento-labial distance	Pre-treatment lower third height	Post-treatment lower third height	Difference between pre- and post- lower third height
8	VI	61	M	x	x	x	x	x	x
9	II	47	F	38.37 mm	39.06 mm	0.69 mm	60.41 mm	63.17 mm	2.76 mm
10	VI	45	F	x	x	x	x	x	x
11	II	47	F	37.89 mm	40.23 mm	2.34 mm	60.28 mm	62.9 mm	2.62 mm
12	III	50	F	x	x	x	x	x	x
13	VI	76	F	49.2 mm	49.72 mm	0.52 mm	79.10 mm	79.15 mm	0.05 mm
14	VI	72	F	39.78 mm	43.94 mm	4.16 mm	74.70 mm	78.02	3.32 mm
15	IV	67	F	52.59 mm	55.33 mm	3.04 mm	74.8 mm	78.07 mm	3.27 mm
16	III	46	F	x	x	x	x	x	x
17	IV	34	F	37.94 mm	38.54 mm	0.6 mm	69.93 mm	72.39 mm	2.46 mm
18	V	28	F	43.66 mm	47.22 mm	3.56 mm	72.65 mm	76.08 mm	3.43 mm

These results suggest that the Inverted Easel technique offers a reliable and aesthetically pleasing method for enhancing the proportions of the lower third of the face, especially in patients requiring subtle mento-labial elongation. **Figures 4**

and 5 illustrate pre- and post-treatment images, demonstrating visible improvements in mento-labial elongation and lower third proportions.



Figure 4. Photographic and measurements records of six patients before and after treatment using Quantificare software.



Figure 5. Comparison of a patient's facial lower third before (A) and after (B) treatment, showcasing the improvements achieved.

Two patients showed a reduction of the mento-labial distance. In one case, both the mento-labial and lower third facial dimensions decreased, likely attributable to technical variation or photographic inconsistencies. Despite these outliers, the overall results indicate a measurable and clinically relevant improvement in the lower third facial aesthetics.

No serious adverse events were observed. Minor side effects, such as transient edema or mild erythema, resolved within 48-72 hours. Patient satisfaction was high, with 90% of the individuals rating their outcomes as "very satisfied" based on post-procedure GAIS (Global Aesthetic Improvement Scale) [10].

4. Discussion

Facial harmonization, particularly in the facial lower third, demands refined technique and respect for individual anatomical variations [11-13]. The Inverted Easel technique offers a novel, structured approach for patients requiring subtle and natural-appearing mento-labial elongation.

In the presented technique, filler is strategically injected in vertical columns, resembling foundation pilings, and avoiding overfilling the mental fat pad. Among the analyzed group, 10 of 12 patients demonstrated a measurable increase in mento-labial and lower third dimensions, reinforcing the technique's efficacy.

The mean elongation of 1.76 mm (mento-labial distance) and 1.86 mm (lower third length) aligns with current aesthetic goals and demonstrates that even modest vertical enhancements can meaningfully impact facial Harmony.

These changes contribute to improved facial proportionality and perceived attractiveness. As discussed by Braz et al. [4], enhancing the mandibular support via volumization of the lower third promotes youthfulness, strength, and contour

restoration. This structural reinforcement is especially relevant when addressing mid-to-lower facial projection imbalances in aging individuals.

The multi-vector layered injection technique is consistent with contemporary frameworks such as MD Codes™, which emphasize anatomically respectful, emotion-guided strategies [5]. This alignment with current standards supports both the safety and effectiveness of the Inverted Easel approach.

Patient satisfaction was notably high, and safety is supported by the absence of major complications and minimal, self-limiting side effects. The technique and the individualized selection of an appropriate biphasic HA filler, tailored to each patient's specific anatomical needs, likely play a role in achieving these favorable outcomes.

While two patients did not experience improvement, this highlights the importance of meticulous technique, standardization of photographic methods, and comprehensive training. These limitations should be considered in future studies to further refine outcome reliability.

5. Conclusions

These results demonstrate the positive aesthetic impact of the Inverted Easel technique in enhancing the mento-labial region by elongating the lower third of the face. As the first method described that achieves this outcome without using supraperiosteal bolus injections, it represents a significant step forward in the use of hyaluronic acid fillers for lower facial harmonization.

Abbreviations

HA	Hyaluronic Acid
GAIS	Global Aesthetic Improvement Scale

Supplement Material

Video 1: Demonstration of the *Inverted Easel* technique, showcasing the injection method for mento-labial elongation.

The supplementary material can be accessed at <https://doi.org/10.11648/j.ass.20251301.13>

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Conflicts of Interest

The authors declare no conflicts of interest.

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Biography



Bhertha Miyuki Tamura is a dermatologist and surgeon with extensive academic and professional experience. She holds a Medical degree from the State University of Londrina (1987), a Master's (2001), and a Ph.D. (2005) in Dermatology from the University of São Paulo (USP). Her research focuses on minimally invasive procedures, botulinum toxin, aesthetic dermatology, and laser treatments. She has served as Head of the Dermatology Department at Heliópolis Hospital, is a professor at USP and UNISA, and currently coordinates post-graduate programs in Cosmiatry and Clinical Dermatology. She is an active researcher and speaker, collaborating with pharmaceutical and biomedical companies and reviewing for scientific journals. A member of the Brazilian Society of Dermatology and Dermatologic Surgery, she has received numerous awards, including Who's Who in Science and Engineering. Fluent in English, French, and Japanese, she continues to advance dermatology through research, education, and patient care.

Research Field

Bhertha Miyuki Tamura: dermatologic surgery, aesthetic dermatology, botulinum toxin treatments, laser therapy, hyperhidrosis treatment, cosmiatry, facial rejuvenation, skin immunohistochemistry, minimally invasive procedures, dermatologic oncology.

Larissa Pierri Carvalho Fonseca: trichology, skin cancer, dermatologic surgery, clinical trials, systematic review, extension projects, cosmetic dermatology.

Eduardo Leite Fonseca: plastic surgery, reconstructive surgery, microvascular surgery, nerve regeneration, grafting techniques, obstructive sleep apnea, head and neck surgery, clinical research, surgical innovation, medical education.

Renata Mirelli de Melo Viana: cardiovascular and aesthetics dermatology research, clinical trials management, pediatric surgery, general surgery, medical project management, regulatory affairs in research, minimally invasive procedures, medical education, ethics in clinical research, cardiac surgery innovations.

Ana Carolina Junqueira Ferolla: dermatologic surgery, aesthetic dermatology, skin aging, photodynamic therapy, chemical peeling, collagen research, laser treatments, dermatologic oncology, minimally invasive procedures, clinical research in dermatology.

Erika Uchida: oculoplastic surgery, aesthetic medicine, eyelid surgery, facial rejuvenation, minimally invasive procedures.

Daniela Junqueira: ophthalmology, glaucoma treatment, cataract surgery, YAG laser procedures, fundoscopic examination, aesthetic medicine, minimally invasive procedures, clinical research, scientific article review.