



K.I.S.S. Lip Filler Technique - keeping injections simple and safe when filling lips

K.I.S.S. technique: sistematização para um preenchimento labial simples e seguro

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ABSTRACT

To simplify the procedure and increase lip augmentation safety, we have developed the KISS - Keep Injection Simple and Safe lip filler technique. To be simple, the method recommends only the evaluation of four anatomical parameters and the filling of five labial areas. To be safe, the injection is performed only in the supramuscular plane, using cannulas with a blunt tip, inserted in four entries: two in the upper lip and two in the lower lip. Fillers are injected in specific anatomical vectors for lips volumization, projection, contour improvement, and support of cupid's bow and lip corners.

Keywords: Hyaluronic acid; Dermal fillers; Lip

RESUMO

Para tornar o preenchimento labial mais simples e seguro, desenvolvemos a técnica de preenchimento labial K.I.S.S. - Keep Injection Simple and Safe. Para ser simples, a técnica recomenda apenas a avaliação de quatro parâmetros anatômicos e o preenchimento de cinco áreas labiais. Por segurança, a injeção é realizada apenas no plano supramuscular, por meio de cânulas de ponta romba, inseridas a partir de quatro portas de entrada, duas no lábio superior e duas no lábio inferior. O preenchimento é realizado em vetores anatômicos específicos para volumização, projeção, melhora do contorno e sustentação do arco do cupido e comissuras labiais.

Palavras-chave: Ácido hialurônico; Preenchedores dérmicos; Lábio

How do I do it?

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INTRODUCTION

Full lips have are with youth and beauty. Therefore, lip augmentation (LA) using hyaluronic acid (HA) is one of the most requested procedures.¹ However, the need to assess multiple anatomical parameters for the aesthetic analysis of the lips, associated with the intense vascular variability of the area, makes the procedure challenging regarding lip analysis and choice of injection sites.

In the last year, we developed and used a simple model for augmenting the lip vermillion in two steps: the first is the analysis of four anatomical parameters for planning the injections, and the second is the injection itself, in five labial areas, always prioritizing the plans considered safer.

We named the model K.I.S.S. Technique, designed to deliver excellent results, keeping lip injections simple and safe.

METHODS

We assessed the following lip parameters of 20 women, aged between 25 and 45 years, for LA planning:

- Height of the filter columns (FC): if longer than 1.5 cm, augmentation would not be conducted in the area;
- Height of the upper (UL) and lower (LL) lips: UL smaller than 0.8 cm and LL smaller than 0.9 cm were considered thin and were injected;
- Anterior projection of the UL in profile: it should be about 2 mm more projected concerning the LL;
- Volume ratio between UP and LL: the UL should have about 80% of the volume of the LL.

After adequate asepsis, we applied four anesthetic buttons with 1% lidocaine, 0.5 cm from the labial contour, one in each FC, superiorly, and one in each line parallel to the lateral limit of the nasal alae, inferiorly (Figure 1). Each anesthetized point corresponded to an entry where we inserted a 25 G, 5 cm cannula and injected HA in the superficial plane by retroinjection.

We performed the LA in five anatomical points, three in the UL, which we named K1, K2, and K3, and two in the LL, which we called K4 and K5 (Figures 2 and 3). The location of each point and the result obtained by its augmentation were as follows:

- K1: diagonal vector directed to the medial tubercle (MT) of the UL: anterior projection of the UL and slight improvement of the medial lip contour (LC);
- K2: one to two vectors almost perpendicular to the entry, directed to the lateral tubercle (LT): anterior projection and vertical dimension of the UL, in addition to cupid's bow (CB) support;
- K3: one to two diagonal vectors, directed laterally to the lateral limit of the nasal wings: volume and LC of the UL;
- K4: two medially directed vectors, one superiorly to the inferior labial tubercle (IT) and the other inferiorly parallel to the inferior labial contour: volume and contour of the LL;
- K5: a vector parallel to the LC, directed to the labial commissure (LC) to support it.

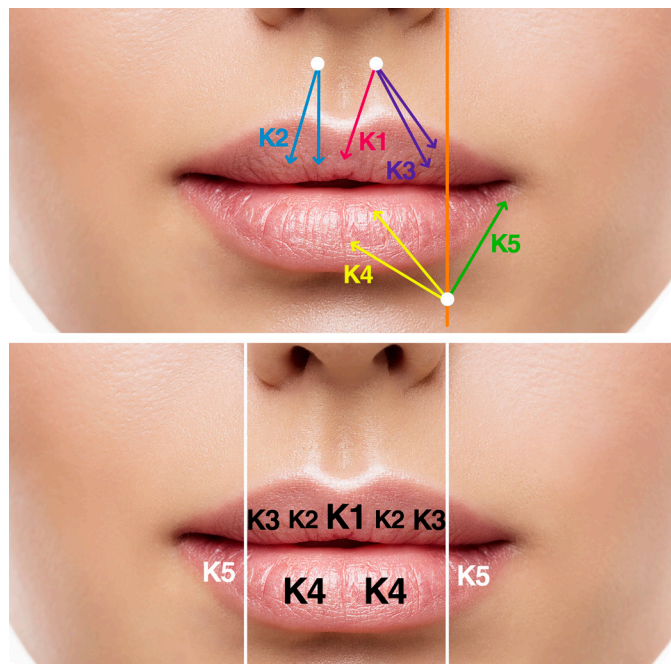


FIGURE 1: Insertion points, vectors and HA injection areas in the lower and upper lips using the K.I.S.S. technique. The white dots represent the skin insertion points of the 25 G, 5 cm cannula. Superiorly, they meet in the FC at 0.5 cm from the LC. Inferiorly, 0.1 cm from the LC, parallel to the lateral limit of the nasal wings. The LA was performed in five anatomical points, three in the UL (K1, K2, and K3) and four in the LL (K4 and K5). The location of each point and the result obtained with the augmentation were: K1: diagonal vector directed to the medial tubercle (MT) of the UL: anterior projection of the UL and slight improvement of the medial lip contour (LC); K2: one to two vectors almost perpendicular to the entry, directed to the lateral tubercle (LT): anterior projection and vertical dimension of the UL, in addition to cupid's bow (CB) support; K3: one to two diagonal vectors, directed laterally to the lateral limit of the nasal wings: volume and LC of the UL; K4: two medially directed vectors, one superiorly to the inferior labial tubercle (IT) and the other inferiorly parallel to the inferior labial contour: volume and contour of the LL; K5: a vector parallel to the LC, directed to the labial commissure (LC), to support it.

RESULTS

All patients were satisfied with the aesthetic result (Figures 4, 5, and 6). The major intercurrents reported were ecchymosis at the entry and edema, which resolved spontaneously within seven days. Three patients developed nodules due to local product accumulation, which resolved with a vigorous local massage.

DISCUSSION

Optimizing the aesthetic results of LA with HA requires an individualized treatment approach, with the skillful application of an appropriate injection technique, based on anatomical knowledge, for minimal risks of adverse events.²

A combination of proportion, definition, and volume determines the relative attractiveness of the lips.³ These are es-



FIGURE 2: Pre-procedure upper image and post-procedure lower image (immediate). All systematization areas were injected, observing the volumization of the upper medial tubercle by the injection of K1, volumization and definition of the cupid's bow by injection in K2, lateral volumization and improvement of the contour of the upper lip by injection in K3, volumization of the lower tubercles by injection in K4, and improvement of the contour and suspension of the labial angles by injection of K5. Note the absence of bruising and mild post-cannula injection edema



FIGURE 4: Pre-procedure upper image and post-procedure lower image (immediate). Lateral image, demonstrating adequate projection of the upper lip, in front of the lower one, of approximately 2 mm, post-procedure



FIGURE 3: Pre-procedure upper image and post-procedure lower image (immediate). All systematization areas were injected to obtain, mainly, a discreet increase of the lower lip and elevation of the labial angles.

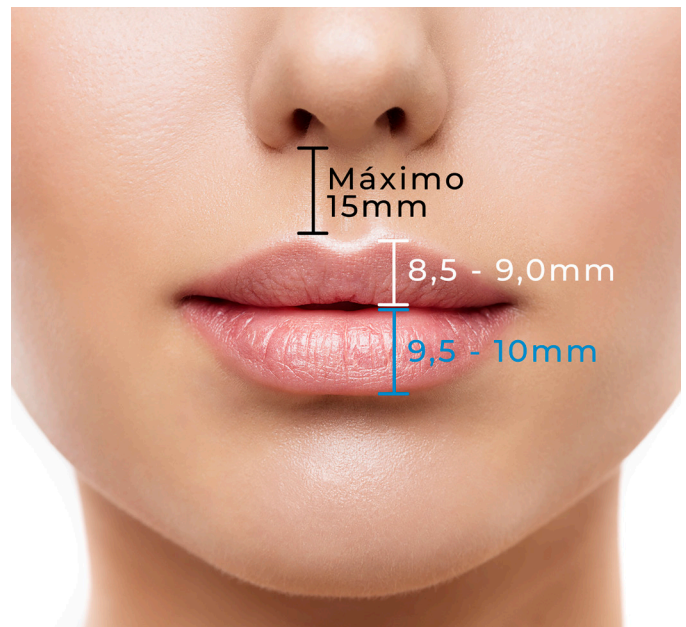


FIGURE 5: Simplified anatomical parameters for lip filling. The vertical dimension of the vermillion of the UL must be between 8.5 mm and 9 mm, and the LL, between 9.5 mm and 10mm, increasing a few mm at the IT level. The volume of the UP vermillion should be 75% to 80% of the LL, following the golden ratio. The height of the FCs should ideally be between 12 mm and 15 mm. The anterior protrusion of the UL should be 1.5 mm to 2 mm greater than that the LL

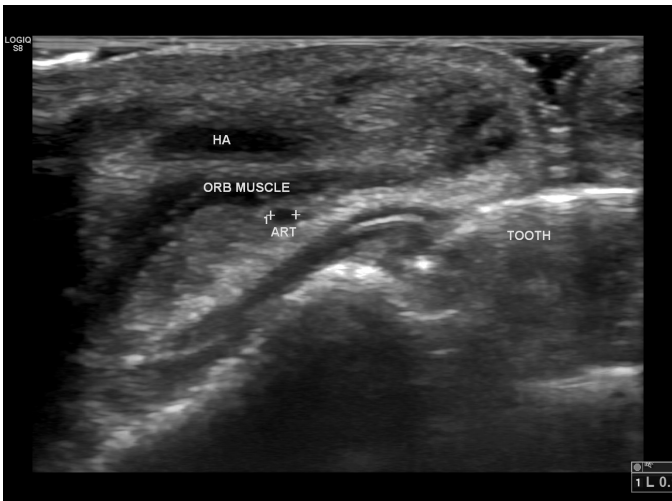


FIGURE 6: Ultrasound evaluation after lip filling with the K.I.S.S technique. Note the presence of injected hyaluronic acid (HA), in a safe plane, superficial to the orbicularis muscle (ORB MUSCLE), distant from the superior labial artery (ART).

essential anatomical parameters that should guide the procedure to avoid unsightly results include:

- The vermilion vertical dimension of the UL must be between 8.5 mm and 9 mm, while the LL must be between 9.5 mm and 10 mm, increasing a few mm at the IT level;⁴
- The volume of the UL vermilion should be 75% to 80% from the LL, following the golden ratio;^{4,1}
- The anterior protrusion of the UL should be 1.5 mm to 2 mm greater than that of the LL;⁴
- The height of the FCs should ideally be between 12 mm and 15 mm.⁴

Injectations that do not meet these criteria can make the already long FC more evident, projecting the already anterior UL, thus bringing an unsightly “duckbill” appearance, or caus-

ing excessive volumization, leading the lips to acquire a “sausage-like” shape.

Complications that are even more serious than unaesthetic outcomes include vascular impairments, which can progress to skin necrosis and blindness.⁵

The lips’ arterial supply presents marked anatomical variations, even when comparing the sides of the face in the same person.⁶ The most frequent location of the superior and inferior labial arteries was the submucosal plane (58.5%), followed by the intramuscular planes (36.2%) and subcutaneous (5.3%).⁷

Dissections⁶ and ultrasound analysis⁷ suggested that a superficial injection plane, about 4 mm away from the vermilion/mucosal junction, would therefore be the safest area for LA.^{6,7,8} Also, the perpendicular approach to the labial vermilion (from the cutaneous lip) could also increase safety, as the artery is located more frequently in this area.⁷ Deep injection between the muscular layer and the mucosa, mainly of the UL, should be avoided.⁹

To increase the safety of the procedure, in addition to essential anatomical knowledge, blunt-tipped microcannulas for LA can be used.¹⁰ In addition to safety, microcannulas usually produce less bruising and less pain, with faster post-fill recovery.¹¹

CONCLUSION

We know that lip augmentation cannot be standardized. Thus, we present an individual analysis and injection model. We also know that lip vascular variability brings many risks to the procedure. Therefore, we also propose that the injection is performed through microcannulas with a blunt tip, only in the safest labial anatomical sites, even if we lose technical refinements, apparently unnoticeable to lay eyes since we could observe a high degree of satisfaction on the part of the patients.

Finally, although the technique does not include the perioral region treatment, approaching this region is often fundamental, especially in older patients, to achieve an excellent aesthetic result. ●

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Statistical analysis; approval of the final version of the manuscript; study design and planning; preparation and writing of the manuscript; data collection, analysis, and interpretation; active participation in research orientation; intellectual participation in propaedeutic and/or therapeutic conduct of studied cases; critical literature review; critical revision of the manuscript.

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Approval of the final version of the manuscript; obtaining, analyzing and interpreting data; critical review of the manuscript.