Tips and Tricks to Avoid Poor Scarring in Lip Lifting: A Technical Note

Lip lift surgery techniques have been widely revised overtime to overcome certain limitations associated with the original technique, such as noticeable scarring, enlargement of the alar base, and flattening of the nasolabial sill.[1] This article aimed to highlight some procedures that facilitate optimal healing after surgical lip lifting.

Surgical Technique

Marking and Skin Excision

The preoperative marking is performed according to the endonasal lip lift technique, as extensively described by Raphael and colleagues.[2] To measure the preoperative distance between the lateral edges of the nasal alae, we recommend using a Castroviejo caliper. The skin is carefully incised along the planned drawing using a nr. 11 blade. A blunt subcutaneous dissection is then performed to complete the skin excision.

Alar Cinch Suture

Before the triangular flaps are approximated into the nasal vestibule, the first key procedure is performed. It consists in realizing an alar cinch suture to counteract the tensile forces that would arise after the lip is anchored upwards. The alar cinch suture aims to approximate the nasal alae to the midline (Figure 1). This is obtained by passing a 2-0 nonabsorbable, monofilament suture bilaterally through the fibro–areolar tissue at the base of the nasal alae. Care should be paid in including enough tissue to sustain the tension.

Triangular Flap Repositioning

The triangular flaps are then approximated into the nasal vestibule. The second key procedure consists in trimming the base of the triangular flaps if they exceed the recipient sites (Figure 1). One 3-0 nonabsorbable, monofilament transcutaneous suture is placed at the apex of each triangular flap.

Alar–Facial Sulcus Suture

The third key procedure consists of suturing the alar–facial sulcus as described by Rauso and colleagues[3] This suture aims to reduce the skin tension on the alae and to obtain a natural transition between them, the medial cheeks and the upper lip (Figure 1). In brief, a 3-0 absorbable, multifilament, full-thickness suture is passed from the nasal vestibule outwards to the lateral part of the incision on the ipsilateral side. The needle is directed slightly laterally to the piriform aperture. The suture then engages the dermal layer of the caudal margin and the dermal layer of nasal ala. Finally, it is directed backward toward the nasal vestibule and tied.

The intervention concludes by placing the conventional subcutaneous and cutaneous sutures. Figures 2 and 3 show the optimal results obtained.

Discussion

Despite the alar base flaring is a relatively common complication, it has been sparsely discussed.[4] The rationale of the alar cinch suture relies on the assumption that alar flaring may results from an outward rotation of the tensile vector after repositioning the caudal flap. This can lead to anatomical enlargement of the nasal base and the development of unfavorable tensile forces (see **Supplemental Digital Content**, Figures 1 and 2, http://links.lww.com/DSS/B357 and http://links.lww.com/DSS/B358). The alar cinch suture effectively counteracts these forces by approximating the nasal alae toward the midline. No evidence exists regarding the most predictable technique for long-term stability of nasal base width, leaving the choice to the surgeon's experience.[5]

The definition of the alar–facial sulcus is crucial for a natural facial appearance. This region represents the boundary between the main midfacial aesthetic units. Even a slight flattening of this contour can result in an unfavorable outcome. The suture aims to enhance this contour, preventing the effects of excessive tensions. Alternatively, many authors suggest avoiding an incision along nasal ala for a better healing. However, it is often necessary to prevent tissues excess at the lateral ends of the incision when fixing the caudal flap upwards.

Conventional approaches to indirect (subnasal) lip lifting inevitably involve scars in an aesthetic area (e.g. the "bull horn" technique). If tensions produced by the repositioning of the caudal flap cause scar enlargement, it may lead to significantly unpleasant outcomes (see **Supplemental Digital Content**, Figure 3, http://links.lww.com/DSS/B359). The endonasal variation aims to overcome this issue by placing the most tensile region in the nasal vestibule. However, particular attention should be given to the patients with a prominent nasolabial sill, which represents the main limitation in using this technique.[3] Furthermore, the authors suggest precise trimming of the triangular flaps

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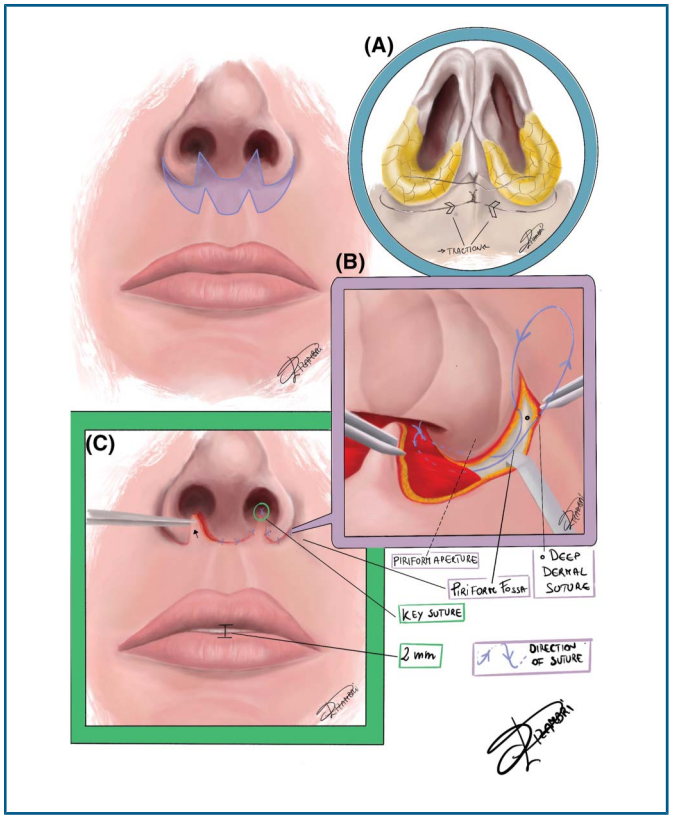

Figure 1. Artistic representation of the key procedures. The design of the skin to be excised (purple shade). (A) The alar cinch suture, note that the alar cinch suture should engage the hypodermal layer of the skin, being deep enough to avoid exposure after healing. (B) Approximation of the triangular flaps into the nasal vestibule. (C) The suture of the alar–facial sulcus. Note the direction of the wire engaging the periosteum just laterally to the pyriform aperture and the dermal layers of the incised skin.

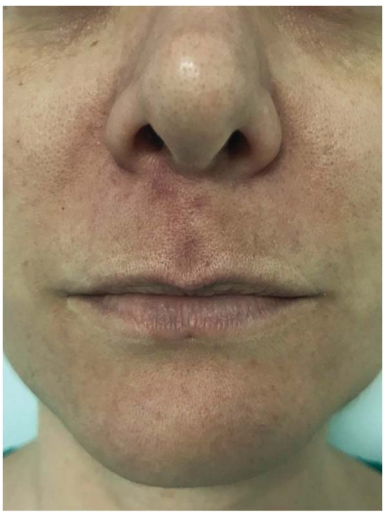

Figure 2. Preoperative condition of a young woman seeking to improve her lips. Note the disproportioned upper lip (tall philtrum with short vermillion—type 3 according to Raphael and colleagues classification) and a smooth nasolabial sill.

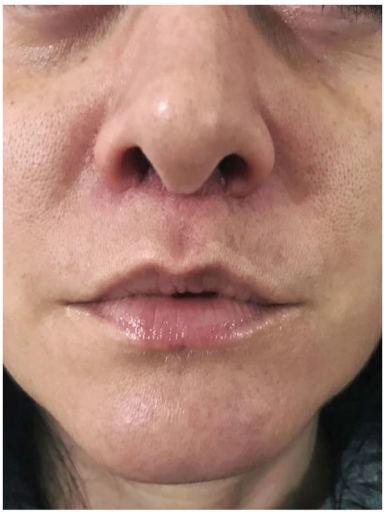

Figure 3. Postoperative results at 2-month follow-up.

before concluding the intervention to avoid the aforementioned consequences.

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