

# Upper lip lifting associated with mechanical dermabrasion

## *Lifting de lábio superior associado à dermabrasão mecânica*

### ABSTRACT

The aging process causes significant changes to the face. There is an increasing demand for aesthetic facial procedures such as blepharoplasty, rhytidectomy, and the use of filling substances and botulinum toxin, among others. The subnasal region receives comparatively less attention. This report aims to demonstrate the use of upper lip lifting combined with dermabrasion as an option to obtain greater facial harmony. In addition, it emphasizes the possibility of its use in association with other surgical procedures.

**Keywords:** lip; rhytidoplasty; skin aging; dermabrasion.

### RESUMO

O envelhecimento traz profundas modificações na face. Existe demanda crescente de procedimentos para tratamento estético facial. São exemplos as blefaroplastias, ritidoplastias, uso de substâncias preenchedoras e de toxina botulínica, entre outros. Infelizmente a região subnasal não recebe comparativamente igual atenção. Este relato tem por objetivo demonstrar o uso do lifting do lábio superior associado a dermabrasão como alternativa para se obter maior harmonia facial. Além disso, cabe reforçar a possibilidade de sua realização associada à de outros procedimentos cirúrgicos.

**Palavras-chave:** lábio; ritidoplastia; envelhecimento da pele; dermabrasão.

### INTRODUCTION

Facial aging is a complex process. Alterations take place in the osseous plane, in the distribution of fatty tissue in the muscular fibers and in the skin.<sup>1</sup> These changes caused by aging – which take place all over the face – also cause important modifications to the subnasal portion of the upper lip.

With the aging process, intensified by the effects of gravity, a thinning of the upper lip and the widening of its cutaneous portion (i.e., an increase in the distance between the base of the nose and the mucocutaneous transition line of the lip) is observed. Additional changes are the effacement of the filter, the inversion of the vermilion, the loss of the incisors visualization and the flattening of the vermilion.<sup>2,3</sup> Simultaneously, perioral wrinkles appear.

In 1971, Cardosa and Sperli described a surgical technique for approaching and treating this problem. Around ten years later, Rozner and Isaacs described the first series of cases.<sup>2</sup> Austin and colleagues worked on approximately 1,200 lip lifting cases and reported about 28 years of experience.<sup>4</sup> The present case

## Case Report

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report describes a surgical approach that can be used to improve the subnasal and upper lip region. This procedure can be used isolated or combined with others such as rhytidoplasty.

**METHODS**

The patient was a 56-year-old woman, Fitzpatrick photo-type II, with no history of smoking. She used phenobarbital for treating epilepsy (her last epileptic crisis was 15 years earlier), and was a class II anesthetic risk – NYHA (New York Heart Association). She presented no other comorbidities in her pre-operative clinical examination.

The patient sought care wanting to improve her facial aesthetic appearance. During the pre-operative assessment, surgery was selected for the middle and lower thirds of the face and to correct lower eyelid fat pseudo-herniations.

The patient also presented an increased distance between the columellar base and the mucocutaneous transition line in the upper lip, a flattening of the upper lip combined with a decrease in the visible vermilion area, and the presence of perioral wrinkles (Figure 1).

**Description of the Technique**

Under general anesthesia, the patient initially underwent inferior blepharoplasty with the removal of the fat pseudo-herniations. Classic rhytidoplasty was subsequently initiated, following the previously applied surgical markings. As is routinely carried out in the care service in question during this type of surgical procedure, SMAS (Superficial Muscular Aponeurotic System) treatment with the vectorial traction of the SMAS flap,

followed by its attachment in the mastoid region and the cutaneous vectorial traction for treatment of the superficial plane, were executed.

The final surgical procedure – this case report’s main subject – comprised the lifting of the upper lip combined with mechanical dermabrasion. The lift was approached using a marking at the base of the nose. This marking extended from one base of the nasal wing to the other through a curve that touched the middle of the columellar base (Figure 2).

After the excision of the marked area, the subcutaneous undermining of the inferior surgical border towards the vermilion of the upper lip was carried out in order to allow the traction of the detached tissue (Figure 3). The closure was meticulously executed using a 6-0 mononylon suture, observing the subcutaneous and subcuticular planes (Figure 4). Simultaneously, a motor dermabrasion with a diamond fraise was carried out along the entire upper lip (Figure 5).

Only a thin gauze layer was kept on the exfoliated site, which came off naturally as the epithelization took place. No topical medication was applied to the exfoliated area, however anti-herpetic prophylaxis was used.

The patient returned for evaluations two and seven days after, and the stitches were removed 10 days after the procedure. One week before the 90-day post-operative evaluation, the patient received botulinum toxin to treat dynamic wrinkles in the upper third of the face.

**RESULTS**

10 days after the procedure, the exfoliated skin was com-



**Figure 1 -**  
Pre-operative  
assessment



**Figure 2 -** Surgical marking of the area to be excised (“gull-wing lip lift technique”)



**Figure 3** - Subcutaneous detachment of the inferior border of the excised area



**Figure 5** - Upper lip dermabrasion



**Figure 4** - Closure in two planes (subcutaneous and subcuticular)



**Figure 6** - 10 days after the procedure

pletely epithelialized, with the presence of erythema (Figure 6). The suture at the base of the nose was visible (Figure 6).

The patient demonstrated significant facial aesthetic improvement during the 90 days after surgery. The resolution of the facial ptosis and the definition of the cervical-mandibular angle were achieved through conventional rhytidoplasty combined with SMASectomy followed by the SMAS plicature. There were also satisfactory alterations in the infrapalpebral regions as a result of the inferior blepharoplasty.

The combination of the procedures carried out provided facial harmony and improved the subnasal area and upper lip (Figure 7). There was a reduction in the distance between the

nasal base and the upper lip's mucocutaneous transition line, a reduction in perioral wrinkles and greater exposure of the vermilion of the upper lip.

There was also an improvement of the upper third of the face following the application of botulinum toxin (Figure 7).

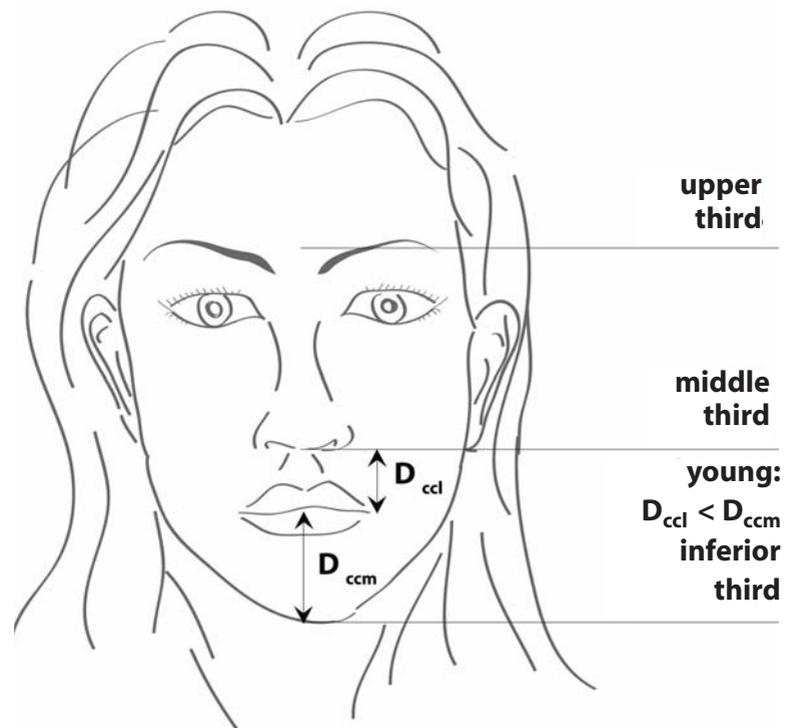
## DISCUSSION

Knowledge of the proportions between the anatomical structures of the face is the key in aesthetic planning. Figure 8 shows the vertical proportions of the face. The aging process, as well as racial differences,<sup>5</sup> cause variations in these proportions.

In planning upper lip lifting surgery, it is important to



**Figure 7 -**  
90 days after  
the procedure



**Figure 8 -** Face proportions and vertical references for the surgical planning

observe the vertical distance between the nasal base and the horizontal line that connects the labial commissures ( $D_{ccl}$ ). Figure 8 shows that in young Caucasians, this distance is shorter than the vertical distance between the line that connects the labial commissures and the bottom of the chin ( $D_{ccm}$ ).<sup>5</sup>

In the present case, the alteration caused by the aging process in this proportion, and the later improvement resulting from surgery, are evident. There was eversion and greater exposure of the vermilion, a clear improvement in the perioral wrinkles and a reduction in the horizontal flattening of the upper lip. These are surgical objectives described by Waldman, and were achieved by carrying out the upper lip lift.<sup>2</sup> Mechanical dermabrasion, implemented during the same surgery, aimed to improve the skin's surface.<sup>1,6</sup> When the procedure is carried out very deeply, crossing the limit between the papillary and the reticular dermis, the risk of definitive dyschromias and undesired scars is greater.<sup>1,6</sup>

Waldman and Austin and colleagues affirm that the base of the nose heals satisfactorily and that the procedure is very well tolerated in a wide range of patient conditions.<sup>2,4</sup> Surgical variations are possible. Excisions can be carried out in the vermilion's transition line and in the subnasal region.<sup>3,7</sup> The choice of technique depends on the surgeon's experience and on anatomical planning.

## CONCLUSION

This study demonstrated the good surgical result of combined upper lip lift and dermabrasion. These procedures can be carried out separately or combined with other techniques. ●

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