

# Absence of the Labiomenal Groove: A Common but Preventable Unpleasant Aesthetic Problem of the Lower Lip-Chin Burn Reconstruction

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## DEAR EDITOR

The labiomenal groove is the deepest point of contour change at the junction of the lower lip and chin. It defines the sublabiale point. The labiomenal groove is located at about one third the distance from stomion to gnathion. It represents the level of vestibule, but, more pertinently, it is the superior attachments of the mentalis muscle. The chin composes about two thirds of this part of lower face, thus forming a ratio of 1:2, lower lip to chin.<sup>1</sup> The depth of the labiomenal groove is 4-6 mm and it is deeper for men than women.<sup>2</sup>

Also labiomenal angle is roughly about 120 degrees. In non-burned patient, decreased lower face, can deepen the depth of this groove. But in lower face burn patients, there is decreased depth or absence of labiomenal groove in spite of decreased facial height due to scar contracture, flattened mental prominence and thick lower lip.<sup>2,3</sup> In lower lip- chin reconstruction, excision of lip-chin aesthetic unit and adequate release of the lower lip to completely cover the lower teeth, is performed and in the case of thick lower lip and a flattened mental prominence, debulking of lower lip, sculpting of labiomenal groove and even chin implant insertion are recommended. The lip-chin unit is then resurfaced with full thickness or thick split thickness skin graft.<sup>2,4</sup> But, what we see in a significant number of reconstructed lower faces is somewhat acceptable appearance of lip-chin unit in frontal view, but aesthetically unacceptable contour in lateral view (Figure 1), which is due to decreased depth or absence of labiomenal groove. This happens due to some skin graft contraction, fibrosis and persistent tissue edema, in spite of some sculpturing of labiomenal groove.<sup>2,5,6</sup> We think it is mostly due to inadequate labiomenal groove sculpturing by burn surgeons.

In our experience, to prevent this unpleasant aesthetic complication, in addition to adequate release of lip and chin fat pad, significant overcorrection at the junction of lower lip-chin unit with excision of almost all burned and nonburned tissues over the lower part of orbicularis oris and upper part of mentalis muscle (except a very thin tissue) was needed (Figure 2), and there is better aesthetic results with this modification (Figure 3).

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**Fig. 1A-D:** Aesthetically unacceptable appearance in lateral view, due to decreased depth or absence of labiomenal groove.



**Fig. 2:** Excision of almost all burned and non-burned tissues over the lower part of orbicularis oris and upper part of mentalis muscle.



**Fig. 3:** Aesthetically acceptable appearance in lateral view, due to adequate depth of labiomenal groove.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

## KEYWORDS

Labiomenal groove; Lower facial burn; Lower lip burn; Chin burn

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