

Case report

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Surgical correction of facial burn scar in ambulatory

Correção ambulatorial de cicatriz de queimadura

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ABSTRACT

Muscle, mucosae, and skin anatomically compose the lips. Neoplasms, congenital malformations, or local trauma can cause lesions on the lips. The surgical reconstruction of lip defects may need flaps, grafts, or microsurgery. The following case report describes the ambulatory surgical correction of a lower lip complex scar, using local skin flaps, with satisfactory aesthetic and functional outcomes.

Keywords: Ambulatory Surgical Procedures; Surgery, Plastic; Face; Surgical Flaps

RESUMO

Os lábios são compostos por estruturas musculares, mucosas e pele. As lesões em lábios podem ser de etiologia neoplásica, malformações congênitas ou traumáticas. A reconstrução cirúrgica dos defeitos nos lábios pode necessitar de técnicas de retalhos, enxertos e microcirurgia. Descreve-se no presente relato a correção cirúrgica ambulatorial do lábio inferior utilizando-se retalho cutâneo local, com evolução estético-funcional satisfatória.

Palavras-chave: Cicatriz; Cirurgia Plástica; Retalhos Cirúrgicos; Procedimentos Cirúrgicos Ambulatoriais

INTRODUCTION

The lips are aesthetic units of the face composed by muscle, skin and mucosae, which exert an important function related to the oral system. This important function is performed by controlling the orbicularis muscle of the mouth, where some fibers of this muscle are arranged horizontally, starting at one commissure and going towards the other, crossing the lip, making muscle-cutaneous insertions, columns and joints and these muscle fibers compress the lips. Besides the orbicularis muscle of the mouth, it is necessary to mention the elevator muscles of the upper lip, the zygomatic major muscle, and the elevators of the angle of the mouth. In addition to these, the depressor muscles of the lower lip, the mentalis, and the elevators of the central portion of the lower lip, compose the functions and aesthetic features of the lips¹. Lesions on the upper or lower lips can be of various etiolo-

gies, including trauma and neoplasms caused by sun exposure, especially in the lower lip. Depending on the type of lesion, the structures involved, its location and extent, there will be a need for a certain type of reconstruction, with the most varied options, from local, distant and microsurgical flaps.^{1,2} Considering the variables of the lesion and the flaps involved, we will have a proportional aesthetic-functional result⁴. In this report, we describe a case of lower lip reconstruction with local skin flap, performed in an outpatient setting, under local anesthesia, evolving with a good aesthetic-functional result.

CASE REPORT

A 56-year-old afro-descendant female patient, hypertensive and epileptic, arrived at the Dermatology Service of the Medical School of UNISA, complaining of the constant loss of saliva due to scarring of the lower lip and neck. The scar was caused during an epileptic seizure and consequent third-degree burn, 4 years earlier.

Upon physical examination, the patient had a scar on the right hemiface, on the lower third, which extended from the vermilion of the lower lip to the ipsilateral anterior cervical region.

In the transition regions between vermilion and lower lip and lower third of the face and neck, the scar caused the formation of flanges, in addition to the vitiligo-like areas secondary to the primary lesion (photo 1). At the static inspection of the lower lip, there was a small failure to close the upper and lower vermilion. Preoperative evaluation and release for surgery under local anesthesia was scheduled.



FIGURE 1: Pre-operative and surgery planning

Surgical procedure

The patient was placed in horizontal dorsal decubitus position; asepsis and antisepsis of the face with alcoholic chlorhexidine was performed, followed by bilateral mental nerve block and local anesthesia, with saline solution, Xylocaine and adrenaline (1/250000) in the amount of 10 cc, in the subdermal and subcutaneous planes of the lower lip. The first incision was made in the mucosal cutaneous line of the lower lip, bypassing the V-shaped defect, close to the right commissure and extending in a medial direction, extending 3 cm, and followed by the rotation of the flap of the mucosa (vermilion) on its own axis, to the right commissure and suture with 5-0 mononylon. Finally, it was made an advanced skin flap rotation, in a medial-medial direction and 5-0 mononylon suture.

Post-surgery period

The post-operative orientation was carried out, concerning the dressing change, the follow-up and the return for the removal of the stitches (photos 2 and 3).

Progress

Around the 14th post-surgery day, the cutaneous flap evolved with a small dehiscence in its most distal portion (photo 4), healing by second intention (photo 5). The last photographic documentation was done on the 28th post-surgery day. The patient was advised to maintain follow-up through the next 12 months, but that did not occur.

DISCUSSION

Performing the functional and aesthetic reconstruction of the lips is a challenging task for plastic surgeons and dermatologists^{2,3}. Surgical correction of these defects may lead to oral incompetence, sialorrhea and difficulty in speech³, depending on the flap used. Successful reconstruction seeks to preserve oral competence, maximum oral openness, speech and sensibility, as well as to improve aesthetics^{3,4}, and sometimes the achievement of these variables is partial.

The literature describes more than one hundred different reconstruction modalities³, but up to now, no technique is considered ideal for lip reconstruction⁵, since they involve many factors, such as type and size of the lesion. In defects comprising less than one third of the lip, the primary closure produces good functional and aesthetic result^{3,6}. Local flaps are a good option for defects that affect one to two thirds of the lip, as in the case reported^{3,6}. When the defect exceeds two-thirds of the lip, regions with previous reconstruction, or irradiated tissue, it is recommended microsurgical flap reconstruct³, among them, the antebrachial flap.

In reconstructions in general, especially in lip reconstructions, the donor area of the flap should be considered, as sometimes the use of the contralateral lip of the lesion is indicated. In addition, these muscular flaps include important structures for oral competence^{3,4}.

We emphasize that none of lesions required tissue removal compromising the perimeter of the mouth, but a repo-



FIGURE 2: Immediate post-op

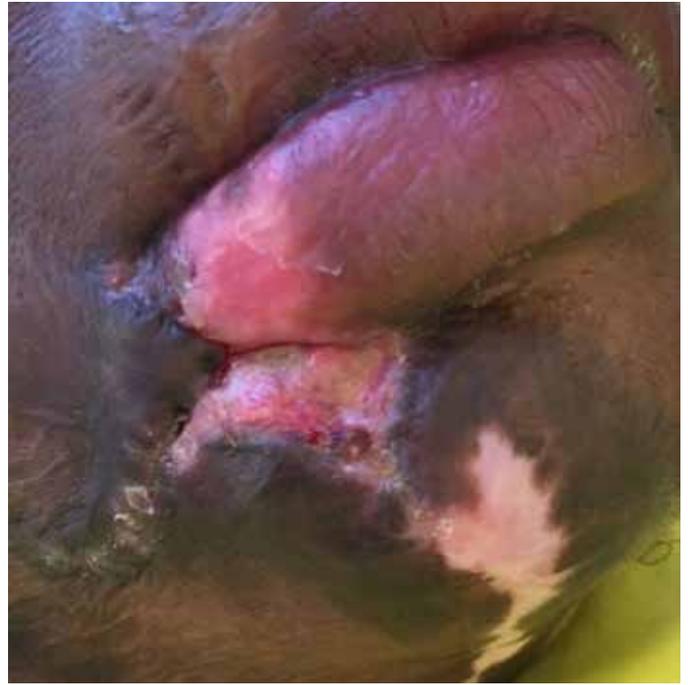


FIGURE 4: Two weeks post-op. Small dehiscence area in healing stage



FIGURE 3: Seventh post-op



FIGURE 5: Four weeks post-op. Complete cicatrization and salivary continence obtained

sitioning of the ectopic tissues, showing an improvement of the oral competence, the movement, and the speech. Prolonged follow-up, up to 12 months, is recommended, since the development of retractions and thickening or keloids might be serotinous.

The local flaps used, both mucous and cutaneous, aimed at repositioning and to minimize the size of the procedure itself,

without compromising other structures and donor areas, since the clinical conditions of the patient allowed only local anesthesia. However, the occurrence of dehiscence may have been due to the quality of the skin of the flap, generating necrosis, since this skin was also involved in the primary trauma. Even with this complication, the evolution was very favorable in aesthetic and

functional terms, with the total resolution of the bridle between the vermilion and the lip and the repositioning of the inferior vermilion, leading to total oral competence.

CONCLUSION

In the case reported, mucosal and cutaneous flaps were performed under submental block and local anesthesia, which resulted in satisfactory oral competence and good aesthetic result. ●

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