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Reconstructing the Upper Lip Using a Tissue Expander in the Neck

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ABSTRACT

INTRODUCTION

Upper lip defect can be devastating, especially when it is associated with an exposed dental complex. Because of the limited similar tissues for reconstructing the defect, the surgeon needs to seek reliable solutions.

CASE REPORT

A 50-years-old man referred to our centre with a large upper lip defect after a tumor excision. After expanding the cervical area tissues, we transferred the new tissues to the defect area and covered it for aesthetics.

CONCLUSION

We need extra peripheral tissues to reconstruct a large upper lip defect. We can create the proper extra tissues with sub-mental and cervical expansion to cover the upper lip with minimum color and tissue discrepancy.

KEYWORDS

Upper lip reconstruction; Tissue expansion

INTRODUCTION

Perioral area is an important part of face and very influential for facial aesthetics. It is a focal point of both spoken and non-spoken communications, influencing even the body language. Its mobile nature and varied contours make it a challenge for surgical reconstruction [1].

Lip deformity can have many causes. Most of them can be categorized as either congenital or acquired. The frequently seen congenital deformity is cleft lip. Acquired deformity can arise from traumatic or neoplastic etiologies [2]. Accurate three-layered closure of lip defects is imperative to preserve function.

We should use a local tissue for reconstruction whenever possible. A small defect can be closed with direct repair. If the defect constitutes up to 25% of the upper lip width, it can be closed. In addition, sometimes if it is up to 30% of the lower lip width, it can also be closed. Intermediate defects are best reconstructed with local flaps. Total or

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subtotal lip defects are best reconstructed with a free tissue [3].

CASE REPORT

The patient was a 50-years old man who had referred to our hospital with an upper lip defect. His first surgery had been done 12 years before his referral because of the upper lip and columella tumor. He had a malignant adnexal tumor carcinoma. Afterwards, he had undergone a primary lip reconstruction and 40 sessions of radiotherapy.

Four years after that surgery the tumor had recurred. Therefore, he had undergone re-excision and primary repair. Six years later the tumor had occurred for the third time. This time he had underwent re-excision and repair with Abbe-Estlander flap. However, it had failed.

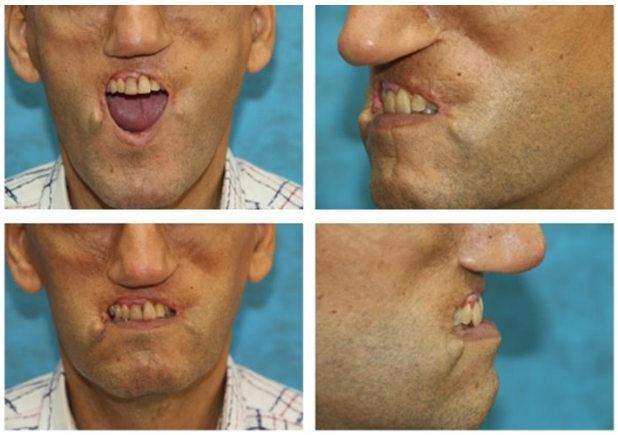

Figure 1: Microstomia in the patient before the surgery.

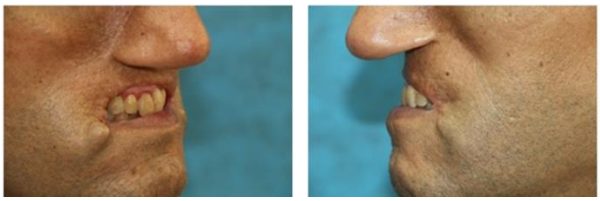

Figure 2: The 720 cc rectangular tissue expander in neck.

In 2019, he referred to our center for reconstructing his upper lip. In pathology samples, he had a tumor-free margin. There was no lymph node involvement. His main problem was microstomia (Figure 1). We placed a 720 cc rectangular tissue expander in his neck and inflated it every week (Figure 2). Five months later adequate tissue was available. Therefore, we removed the tissue expander and transferred the extended tissue to the upper lip (Figure 3). After three weeks, we cut the right flap pedicle and three weeks later the left one. The upper lip was reconstructed with these pedicles, columella, and rib cartilage (Figure 4). We visited the patient every two months after the surgery. No flap necrosis occurred. Columella site was in a perfect condition (Figures 5 and 6).

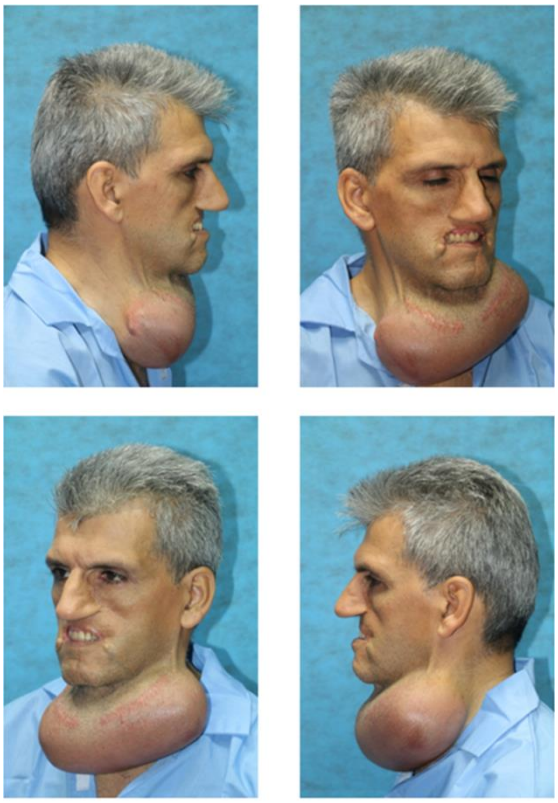

Figure 3: Transferring the extended tissue to the upper lip.

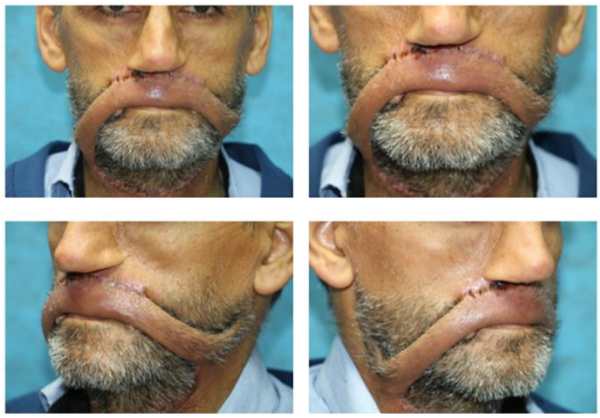

Figure 4: Reconstructing the upper lip with pedicles, columella and rib cartilage.

Figure 5: Four months after reconstruction.

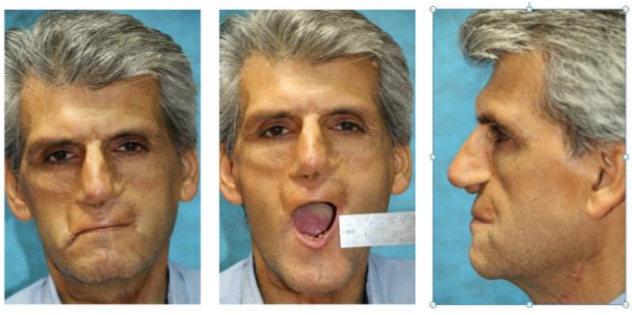

Figure 6: Eight months after reconstruction.

DISCUSSION

Some methods have been described for reconstructing the perioral defects. Local flap reconstruction is the preferred method for moderately large defects. However, distant flap reconstruction is necessary for large defects [4].

Furuta et al. [4] reconstructed lip oral commissure and full thickness cheek with a composite radial forearm-palmaris longus free flap. Kitazawa et al. [5] used bipedicled submental island flap for the upper limb reconstruction. Kenan et al. [6] reviewed seven cases in a 12-month period. They designed perforator plus fasciocutaneous flap within the labiomandibular fold for oncological clearance and aesthetic outcome. They observed no local recurrence in the follow up.

Lyons et al. [7] reported two cases that used the free superficial temporal artery hair-bearing flap that provided a reasonable and acceptable appearance for the patient. Oseai et al. [8] reported a case in which the total reconstruction of the upper lip was done using bilateral nasolabial flaps, submental flap and mucosa graft.

CONCLUSION

We can do the upper lip reconstruction with local and free flaps. Using tissue expander in the neck is a good choice for an upper lip reconstruction. We can used them as bilateral pedicles at first and then cut off each pedicle in turn.

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