Reconstruction of Ala of Nose with Bilobed Flap: A 2 Year Follow-up

R. Kannan · Reena John

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Abstract Basal cell carcinoma accounts for 70–80% of all cutaneous malignancies in the head, face and neck region [2]. This article reports a case of basal cell carcinoma involving the ala of the nose with the excision of the lesion and reconstruction.

Keywords Bilobed flap · Ala reconstruction · Nasolabial fold

Introduction

Although basal cell carcinoma is a malignant neoplasm, it rarely metastasizes. The incidence of metastatic basal cell carcinoma is estimated to be less than 0.1%. Nasolabial flap, median forehead dorsal nasal flap, glabellar flaps, bilobed flaps, cheek and craniofacial flaps are used for nasal reconstruction.

This is a case report of a defect measuring 2.5 cm diameter in the left ala of the nasolabial fold following excision of a basal cell carcinoma which was reconstructed with a modified nasolabial flap (bilobed nasolabial flap) [1–3].

Case Report

A 60 year old female patient reported with an ulcer on the left side of the nose of 2 years duration which was slow

growing in nature (Fig. 1). Markings for the flap design (Fig. 2) was done after site preparation and draping. Excision of the lesion was carried out 2 mm from the margin of the tumor (Fig. 3). The ala cartilage was also included in the excision but the nasal mucosa was preserved. The excised lesion was (Fig. 4) was sent for histopathological examination.

Reconstruction was performed with inferiorly based bilobed flap. The flap was designed in such a manner that the flap can be turned over the lining of the ala of the nose. The closure of the donor site was done primarily without deformity.

An inferiorly based subcutaneous pedicled flap was reflected under local anesthesia (Fig. 5). The area surrounding the nasolabial fold was infiltrated with 1% xylocaine with epinephrine 1:80,000. The plane of dissection was beneath the subcutaneous fat of the flap and superficial to the underlying musculature [4].

The adjacent tissues of the cheek was widely undermined for closure of the donor site. This was a single stage procedure used to reconstruct a defect of the ala. By this method second stage surgery was avoided. Dog-ear was reduced considerably when compared with reconstruction of defects of the ala with a nasolabial flap. This technique does not necessitate tubing of flap in order to transpose the flap. Hence, the post surgical discomfort of the patient is markedly reduced.

The central lobe of the flap was rotated into the primary defect, the secondary defect was filled by the remaining flap, and the tertiary defect i.e. left from the secondary defect was closed by direct suture [1].

The bilobed flap is reported to be used very effectively to close the defect near the nasal tip and ala of the nose. This is one of the most difficult site to cover with a flap in a single stage by any other alternative method [1].

R. Kannan (✉) · R. John
Department of Oral and Maxillofacial Surgery, Vinayaka
Mission's Sankarachariar Dental College, Salem, India
e-mail: drkannanmds@yahoo.co.in

Fig. 1 Pre-operative photograph

Fig. 4 Excised lesion

Fig. 2 Incisional marking

Fig. 5 Subcutaneous pedicled flap

Fig. 3 Intraoperative photograph

Bilobed flap was elevated and muscle layer suturing was done with 4.0 vicryl. After rotating the flap, key suture was placed in the nasolabial fold for cosmetic re-structuring of

Fig. 6 Sutured flap

Fig. 7 Postoperative photograph after 2 years

nasolabial fold and to avoid tent formation. The margins were sutured with 3.0 mersilk (Fig. 6). Betadine dressing placed and patient recalled after a week for suture removal.

The patient has been followed up for 2 years with no evidence of recurrence or alteration in flap contour (Fig. 7).

Discussion

Reconstruction of the surgical defect of the nose is by direct suture or free skin graft or flaps. Flaps can be local, regional and distant.

Direct suture of the alar cartilages defects are impossible due to deep fixation of the skin with the alar cartilages. Free skin grafts provide good covering of the wound but as such it will not replace the defect and hence esthetics will be affected [1].

Among flaps, local flaps are the choice of treatment for reconstruction of the alar defect of the nose since it is a smaller defect and will not have much of esthetic problems. The timing of the reconstruction and the way the flap is used depends very much on reconstruction [2].

The local flaps available for reconstruction of alar defect are nasolabial flap and bilobed flap. Nasolabial flap consist of finger of tissue lying in the skin crease. It can be based superiorly or inferiorly, the transfer can be single or two stages, which depends upon the defect which may abut directly on the flap and the procedure can then be a single

stage. When the flap does not immediately abut on the defect, where a narrow skin bridge separates the two then the necessity for two stage procedure arises [3].

The bilobed flap is an extremely versatile technique though it requires care in judgement. If it is designed well and carried out properly, it gives excellent results. In our case, we did a modification of bilobed flaps; it was taken from a region other than the usual region of median forehead. We have designed the bilobed flap adjacent tissue to the alar defect. This procedure can be performed with ease under local anaesthesia which allows the surgeon to check eye closure intra operatively and hence avoid post surgical complication such as ectropion. A second surgical procedure is not necessary as tubing of flap is not done in this procedure [4]. Compared to other nasolabial flaps, this flap is relatively easy and direct suturing of the defect of the donor site can be done.

Conclusion

Reconstruction of defects of the nose, though a difficult and challenging venture, is made easy by this novel procedure—Bilobed flap. This is a surgical procedure which can be performed with ease under local anesthesia which allowed the surgeon to check eye closure intra-operatively and hence avoid post surgical complications such as ectropion. A second surgical procedure is not necessary as tubing of flap is not done in this procedure. The patient is psychologically happy with the result and socially accepted as the post surgical defect is not very obvious.

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