

Simplified Correction of Basal Cell Carcinoma with Local Nasolabial Flap

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Abstract

Basal cell carcinoma is the most common malignancies in Asians and usually present in patients between ages of 50 to 70 years. The ala of the nose and nasolabial fold is the most common site. Surgical excision of the tumours from the face may create an unsightly defect that is difficult to restore. Skin graft can cover only superficial defects and has a tendency to contract and may not take properly. Also because of colour mismatch, it is not cosmetically identical to the face.

The nasolabial flaps are very useful and versatile local flaps, with robust vascularity. The flap can be superiorly based to reconstruct defects on the cheek, side wall or dorsum of the nose, alae, columella and lower eye lid. Inferiorly based flaps can be used to reconstruct defects in the upper and lower lip.

Keywords: basal cell carcinoma, nasolabial flap, facial defects, nasal reconstruction.

Introduction

Defects in the cheek, nose, lip and eyelid can create a challenge to the reconstructive surgeon. This is due to the functional and aesthetic problems occurring as a result of resection of tumours in such areas.

Superiorly based nasolabial flaps can be used for reconstruction of nasal defects, lower eye lid and cheek. The flap tissues are considered ideal when there is a full thickness deformity of the nose.

The vascular anatomy of the nasolabial flaps is based on the angular artery (a branch from anterior facial-artery or infra-orbital artery, transverse facial artery). The flap design, size and dimensions are limited to the redundancy of available tissues and the possibility of closing the donor site primarily without deformity.

The orientation of the pedicle is usually determined by the location of the defect. The flap elevation can be done under local

anaesthesia until the defect is multiple.

Case Report

A female patient, 59 years of age with a chief complaint of mole on her nose reported to the clinic. She had noticed the mole since 2 years which had gradually increased in size. She was diagnosed with basal cell carcinoma of the nasolabial fold which was confirmed with FNAC. The routine blood profile carried out and found to be within normal limits. The surgery was planned under local anaesthesia the tumour was excised with a post surgical defect measuring 2.0 x 1.5 x 0.5 cm. A localized nasolabial flap was designed and advanced into the defect. Haemostasis was achieved and the closure was done in layer and a post surgical dressing was placed. Antibiotics and analgesic were prescribed. The patient was recalled for follow up for the interval of 3 and 7 days. The post operative healing was uneventful with a follow-up of 6 months.

Discussion

The advantages of nasolabial flap in addition to robust vascularity include the simplicity and the time saving that the procedure provides. The proximity to the recipient defect, the best colour match and the satisfactory contour created from the relatively hairless areas are also major advantage.

Also it can be performed under local anaesthesia, with a short procedure time (30-45 minutes), a result that match others experience^{1,2,3}.

However the limitations of the flap use include the limited flap size, width and limited arc of rotation. This makes it only suitable for small and medium size defect like the one used for the mentioned case.

With regard to complication, no major one was encountered and there was no need for a second stage surgery.

The cosmetic outcome of reconstruction is usually affected by the donor site

morbidly, the percentage of flap contraction and degree of colour match. All these parameters were subjectively favourable in our case. This encourages the future wider application of the flap in reconstruction of other areas of the face including floor of the mouth^{4,5}, the hard palate⁶ and the lower lip.

Conclusion

The versatility of nasolabial flaps exceeds its recognized application in nasal defects reconstruction. It can be a useful procedure in reconstructing a cheek, eye lid, lip and floor of mouth defects. Although the flap size can be a limiting factor in the flap utilization in reconstructing facial defects, it can be used to cover defects as wide as 5cm. The ease of this simpler procedure under local anaesthesia can help the surgeon to consider it in routine practice.

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Legends

- Fig 1 Patient with a large basal cell carcinoma of the nasolabial fold.
Fig 2 Defect in right nasolabial fold after excision of a large Basal cell carcinoma. The blue area is excised to allow the flap to be rotated and seated in place in a single stage.
Fig 3 The flap is advanced in the defect and sutured in position with little tension.
Fig 4 One week result, lateral view.
Fig 5 Six months result, frontal view.



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