Wide local excision of a lesion that encompasses several facial subunits including medial canthus, nasal sidewall, and cheek provides multiple reconstructive conundrums. When the margins extend into the lower eyelid, problems are further complicated by varying skin types, tension vectors, and preservation of periorbital function. With the prominent position of the wound, the aesthetic component, along with the functional considerations, becomes of utmost importance.

The use of supraorbital artery island and pedicle flaps in the reconstruction of periorbital and glabella defects has been documented. Low complication rate and good aesthetic outcome due to superior tissue matching make it a favorable technique. Cutaneous or musculocutaneous flaps can be raised, although the latter would be more likely to compromise the supraorbital and supratrochlear nerves and vessels. Although it can be used to reconstruct the medial and lateral canthus, tissue quality would not be suitable for eyelid reconstruction.

The Tripier flap is a musculocutaneous flap designed to maintain the function of the lower eyelid. Flaps can be based on a single pedicle or bipedicle for a bucket handle–type flap. Modified Tripier flaps have been used when the innervation of the orbicularis muscle is not required for adequate function. Using this modified technique, a single-pedicle modified Tripier flap can be utilized to perform reconstruction of a lower eyelid defect using excess tissue from the upper eyelid.

We report the first successful use of a chimeric upper eyelid–supraorbital flap to reconstruct a facial defect, secondary to a wide local excision of the lower eyelid, entire nasal sidewall, and infraorbital cheek in a patient with a biopsy-proven diagnosis of malignant melanoma.

**CASE REPORT**

A 79-year-old patient was referred to our tertiary cancer center for further management of an advanced malignant melanoma. Original diagnosis was made at his district hospital after several months’ history of a dark, pigmented lesion on the right side of his nose. Excision biopsy was performed, and histology revealed incomplete excision of a pT2a malignant melanoma.

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with a Breslow thickness of 1.3 mm, a mitotic rate of 0 mm², and no ulceration. On review, a well-healed 12-mm scar was found to be consistent with the biopsy site. There was no obvious evidence of residual disease or lymphadenopathy, and sentinel lymph node biopsy was discussed, but it was declined by the patient due to comorbidities. On admission for surgery, right infraorbital cheek swelling was noted, which was highly suspicious of in-transit metastasis. The planned excision was therefore extended to include the infraorbital area. As a result, the defect was to include the entire right nasal sidewall, right infraorbital cheek, right medial canthus, and medial two thirds of the right lower eyelid.

The scar was marked out with a 2-cm margin, as per the British Association of Dermatologists guidelines, with an additional area to encompass the cheek swelling. The chimeric flap was marked on the patient’s forehead to include a crescent-shaped supraorbital skin island based on the expected path of the right supratrochlear artery while the second part included skin from the upper eyelid, similar to a medially based modified Tripier flap. Additional marking of a paramedian forehead flap was included as a contingency plan (Fig. 1A).

After wide local excision, the defect included the entire right nasal sidewall, medial two thirds of lower eyelid anterior lamella, and most of the infraorbital cheek including the zygomatic muscles (Fig. 1B). The dual blood supply chimeric upper eyelid-supraorbital was raised and was perfused by branches of both right supratrochlear and superior medial palpebral vessels. The supraorbital flap was raised in the subgaleal plane along its lateral two thirds and subperiosteal plane medially to include the supratrochlear pedicle. Dual venous drainage prevented the temporary increased congestion often seen in newly raised flaps. Prophylactic right lateral canthopexy was performed. The upper eyelid part of the flap was used to resurface the lower eyelid defect, whereas the supraorbital part of the flap was used to resurface the nasal sidewall and infraorbital cheek. A corrugated drain was placed at the inferiormost aspect of the wound. Both donor sites were closed directly, which served to concomitantly correct the brow ptosis commonly seen in elderly patients while maintaining good eyebrow position.

Healing was uneventful, and both flaps survived completely (Fig. 2). Chloramphenicol was prescribed, and the patient was encouraged to use Steri-Strips to hold his eye closed at night while the acute postoperative swelling settled. Full closure of the eye was possible once this swelling had subsided. Histology showed complete excision of the scar tissue from the primary biopsy. A separate focus of lentiginous-type malignant melanoma in situ was seen on the nasal sidewall. This had been completely excised with 2.5-mm clearance of the nearest peripheral margin and 3.8-mm clearance of the deep margin. There were also completely excised foci of actinic keratosis and benign intradermal nevus. Forehead flap was divided under local anesthetic 4 weeks after the first procedure due to the availability of operating theaters. Further excision of the nasal sidewall margin was performed simultaneously to give a 5-mm clearance from the melanoma in situ. Excellent functional and aesthetic outcome was noted on follow-up 2 and 4 months postoperatively (Fig. 3). There were no adverse effects on periorbital function. There were no postoperative complications and no trapdoor deformity. There was some expected facial asymmetry with a degree of softening of the right nasolabial fold; however, the patient and his family were pleased with, and grateful for, the final outcome. The patient will be followed up every 3 months for 3 years, then in a 6-monthly mode.

**DISCUSSION**

Chimeric upper eyelid-supraorbital flap provides simultaneous reconstruction of lower eyelid, nasal side-
wall, and infraorbital areas, therefore replacing multiple facial aesthetic subunits at the same time (Fig. 4). As opposed to skin grafting and other locally based flaps, there is unparalleled tissue quality match to all areas. Unlike the well-known paramedian forehead flap, donor site can be closed directly, which obviates the need for delayed healing or skin grafting of forehead donor site. In addition, closure of the supraorbital crescent-shaped donor site corrects the brow ptosis commonly present in elderly patients with skin cancer. Localized swelling may occur, but it is transient in nature and simple to manage over the short term, leaving the patient with a good functional outcome. The chimeric upper eyelid–supraorbital flap provides an aesthetically pleasing method of reconstruction and provides a simple and safe procedure. We propose this flap as the first option in the reconstruction of challenging defects encompassing lower eyelid and more than one additional aesthetic facial subunit.

**PATIENT CONSENT**

The patient provided written consent for the use of his image.

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