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Omega flap, A additional consideration for upper lip reconstruction

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Surgical excision remains the primary treatment modality for upper lip cutaneous neoplasia. Concurrent reconstruction is the ideal for smaller defects to enable single appointment procedures and to maintain functional anatomy. However, the resultant reconstruction of the upper lip has its challenges due to the complexity of functionality in the region, the very visible scarring, and the potential for distortion of the local structures such as the vermilion border and the nasal rim.

Omega Advancement Flaps are underutilised in the head and neck region but have been used in various other anatomical sites [1]. The ideal scenario for their use in the upper lip is in reconstruction of a partial thickness defect that is in close proximity to the nasolabial fold and limited to less than two centre meters diameter. Through this technique the scarring can be minimised by camouflaging it within the nasolabial fold while matching the defect with closely related skin colour and texture. Distortion of the upper lip is avoided due to the tension being transferred away from the apex of the excision site. In addition, as this requires limited extension of the incision sites it can be easily performed under local anaesthetic.

The authors demonstrate the use of the Omega Advancement Flap to reconstruct the upper lip right lateral unit in a 73 year old patient with a squamous cell carcinoma (SCC), (Fig. 1). The lesion was excised with a surgical margin of 3 mm and sent for histological analysis that demonstrated a well differentiated KA-like SCC with clear margins of at least 2.5 mm.

The lesion and margin are marked out with the flap design before injection of local anaesthetic. Additional markings are made demonstrating the nasolabial line and the donor skin, of the same proportions, to form the omega (Ω) shape the flap is named after (Fig. 1). Once the lesion has been removed and sent for histopathology the excess tissue that would form a dog ear is removed to enable aesthetic closure of the wound. Tension of the wound is at this location rather than at the labial



Fig. 1. Omega advancement flap design.

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Fig. 2. Immediate post operation.

margin, enabling the omega part of the skin to fill in the recipient site passively. Deep and superficial sutures (Fig. 2) are placed to hold the advanced skin until it has adequately healed (Fig. 3).

In conclusion the Omega Advancement Flap is an underutilised but versatile modality for roughly circular lesions involving the lip margin that results in a highly cosmetic result with minimal functional sacrifice.



Fig. 3. Three weeks post operation.

Author contribution

Adam Holden, Conception and design of study/review/case series, Acquisition of data: laboratory or clinical/literature search, Analysis and interpretation of data collected, Drafting of article and/or critical revision, Final approval and guarantor of manuscript.

Alice Cameron, Conception and design of study/review/case series, Drafting of article and/or critical revision, Final approval and guarantor of manuscript.

Andrew Felstead, Conception and design of study/review/case series, Acquisition of data: laboratory or clinical/literature search, Final approval and guarantor of manuscript.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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