ABSTRACT

Since its description in 1990,1 the submental artery flap has become a valuable option for facial and upper aerodigestive tract reconstructions. Successful procedures entail good color match, tissue texture, and a proper amount of subcutaneous tissue. Current indications include reconstruction of mid and lower face and intra-oral defects.2,3 This report describes a case of submental artery perforator flap reconstruction of a malignant melanoma chin defect.

METHODS AND MATERIALS

The lateral margin re-excision and submental artery perforator transposition flap reconstruction with facial nerve monitoring of the 4 x 4.5 cm defect was then performed without any complications. The patient had stage II melanoma with perineural invasion but no ulceration or nodal involvement. The patient was followed for three weeks and the flap survived well with no complications. Given the high mitotic rate and thickness of the lesion, estimated the risk of recurrence to be in the 40% range. The patient underwent postoperative radiation and adjuvant treatment.

DISCUSSION

Despite its usefulness, the main limitations of this flap include potential damage to the marginal mandibular nerve, venous congestion, previous radiotherapy, ligation of the facial veins and condylar branches of the submental perforator artery cannot be used during the same procedure; submental lymph nodes are in the deep layers of the flap and when the flap is raised, malignant cells could extend into the recipient site.2,3

Local excision is still the most effective treatment modality for melanomas, with melanomas greater than 2 mm thickness requiring 3 cm margin excision followed by reconstruction of the skin defect. Sentinel lymph node biopsy is the staging procedure of choice in intermediate thickness melanomas. Melanoma treatment is based on high dose interferon alpha; despite its toxicity, it has no overall survival benefit.1,4

In conclusion, the submental perforator flap is a reliable, simple, quick and safe flap that provides excellent color, thickness, tissue texture match to the face with minimal donor site morbidity. This flap may be utilized to reconstruct the lower and middle thirds of the face, upper aerodigestive tract defects. The submental perforator flap has been used for various traumatic, oncologic and oncologic defects, and to the best of our knowledge this is the first case in the English literature of submental perforator flap reconstruction of a malignant melanoma defect.

REFERENCES