BUCCAL CARCINOMA - A CASE COMPARISON OF TWO MODALITIES OF RECONSTRUCTION

L E Loh

ABSTRACT
Buccal carcinoma, though a rare disorder in this part of the world, is often advanced at the time of diagnosis requiring full thickness resection of the cheek resulting in a through and through full thickness defect of the cheek. Such a defect confronts Head & Neck Surgeons with problem of reconstruction. The author presents, compares and contrasts two modalities of reconstruction.

Keywords: Advanced buccal carcinoma, full thickness defect, pectoralis major myocutaneous flap, cervicpectoral advancement flap

INTRODUCTION
Advanced buccal carcinoma which has either invaded through or near the skin of the cheek calls for through and through full thickness resection of the cheek. The resulting defect confronts Head & Neck Surgeons with problem of reconstruction in the following areas viz provision of water-tight resurfacing of the buccal mucosal defect, provision of aesthetic coverage of the cheek skin defect and provision of bulk for the cheek.

Several modalities of reconstruction of a full thickness cheek defect have been described. These include forehead flap, deltopectoral flap, temporalis muscle flap, myocutaneous flap etc. The author compares and contrasts two modalities of reconstruction. The surgical techniques are described.

SURGICAL TECHNIQUE
Case 1
Madam P presented in 1989 with a T3 left buccal carcinoma which almost invaded the skin of the cheek and an ipsilateral enlarged submandibular lymph node. A through and through full thickness resection of the carcinoma with an ipsilateral radical neck dissection was carried out. Reconstruction was achieved by utilizing pectoralis major myocutaneous flap. The skin paddle of the myocutaneous flap was turned externally to provide skin coverage for the cheek defect, the buccal mucosal defect was resurfaced with split skin graft on the pectoralis major muscle. Fig 1 shows the reconstructed cheek two months post-operation.

Case 2
Mr A presented in 1990 with a T3 left buccal carcinoma which had invaded through the skin of the cheek and an ipsilateral enlarged submandibular lymph node (Fig 2). A full thickness resection of the carcinoma with ipsilateral radical neck dissection was carried out resulting in a 6 cm diameter cheek defect. A segmental mandibulectomy was also carried out in view of the proximity of the tumour to the mandible. Post-operative histology revealed that the mandible was free of tumour. In this case the author utilized pectoralis major myocutaneous flap with its skin paddle turned internally to repair the buccal mucosal defect and cervicpectoral advancement flap to repair the cheek skin defect. At the beginning of the operation, the skin of the cheek to be excised was outlined. The incision of the cervicpectoral advancement flap extended from the cheek posteriorly to the auricle. It then sloped inferiorly along the anterior border of the trapezius muscle and further along the lateral border of the pectoralis major muscle to its skin paddle (Fig 3 and 4).

The cervicpectoral advancement flap was then raised subplaysmally in the neck and superficial to the pectoralis major fascia in the chest (Fig 5). Excellent exposure was obtained for resection of the primary tumour, neck dissection

Department of Otolaryngology
Singapore General Hospital
Outram Road
Singapore 0316

L E Loh, MBBS, FRCS, FAMS
Consultant
and harvesting of pectoralis major myocutaneous flap. At the completion of the resection, the pectoralis major myocutaneous flap was turned internally to repair the buccal defect, the medially based cervicopectoral flap was then advanced anterosuperiorly to repair the cheek defect. The donor site was closed primarily. Fig 6 and 7 show the patient 2 months post-operation.

DISCUSSION
Of the several modalities of reconstruction available for a through and through full thickness defect of the cheek, the author feels that the two modalities presented in this paper are most promising.

Both modalities, viz pectoralis major myocutaneous flap in combination with split skin graft and cervicopectoral advancement flap in combination with pectoralis major myocutaneous flap have the following advantages:
1. Immediate one-stage reconstruction. Modalities such as forehead and deltopectoral flap require at least two stages of procedure.
2. Donor site can be closed primarily.
3. Provide excellent exposure for concurrent neck dissection and harvesting of pectoralis major myocutaneous flap.
Fig 7 - Mr. A two months post-operation

Besides the aforementioned advantages, cervicopectoral advancement flap offers an additional advantage, viz providing superior aesthetic result as can be seen by comparing Fig 1 and Fig 6. The skin defect of the cheek is replaced by skin from the submandibular area which provides good colour and texture match and additionally in patients with a beard such as Mr A the beard bearing area of the cheek is replaced.

Utilizing the skin paddle of the pectoralis major myocutaneous flap for external coverage would result in an area of ‘desert’ on the replaced cheek.

The only disadvantage of cervicopectoral advancement flap is a tendency for a small area of the postero-superior tip to necrose. Becker advocates using intravenous fluorescein intra-operatively to detect any distal portion of the flap which does not fluoresce under ultraviolet light and trimming off such portion.

ACKNOWLEDGEMENT
The author would like to thank Miss Lily Lum, Secretary of the Department of Otolaryngology, Singapore General Hospital for her assistance in typing the manuscript.

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