Oncoplastic surgery for cutaneous head and neck cancers – combining reconstructive and oncologic principles to maximise outcomes

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1 Context & Aim

Sentinel node biopsy (SNB) in the head and neck (H&N) region poses notable technical challenges due to the intricate anatomy.

Accessing nodes often requires small incisions, making it difficult to identify critical anatomical landmarks.

When the primary tumour is situated close to the sentinel nodes (SN), a local flap can be designed to fulfill two purposes: facilitating access to the sentinel node area and aiding in the reconstruction of the primary site.

2 Method

A retrospective review was conducted on consecutive patients who underwent surgery for cutaneous head and neck malignancies between July 2021 and December 2023.

The study included patients who had sentinel nodes (SNs) harvested through a local flap reconstruction in the head and neck (H&N) region.

3 Findings

A total of 20 patients were identified, 18 with melanoma and 2 with Merkel cell carcinoma, with tumours located on the scalp, face, and neck.

Lymphoscintigraphy (LSG) revealed unilateral lymphatic drainage in all cases, identifying a median of three SNs (range 1–5) across a median of two neck levels (range 1–3) per patient.

A median excision margin of 1.5 cm (range 1–2 cm) was achieved, and a local flap alone was used for SN retrieval in 19 patients (95%).

A median of 2.5 (range 1-5) SNs and a median of 3 (range 1-6) total nodes (SNs + non-SNs) were retrieved. There was agreement between number of SNs on LSG and SNs retrieved in 15 (75%) patients.

Preoperative markings of the wide local excision and sentinel nodes (SN) marked with ´X´ on the skin

Result at the end of the operation after procurement of SN through the flap incisions

4 Conclusion

The approach of harvesting sentinel nodes (SNs) through local flap incisions provides excellent anatomical visualization and ensures safe SN retrieval with minimal complications.

Additionally, this technique delivers favourable aesthetic results for reconstruction.

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