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설암절제술 후 전외측 허벅지 유피  
피판부위의 편평세포암 재발 증례:  
사례 보고서 및 문헌 검토

Squamous Cell Carcinoma Recurrence in an  
Anterolateral Thigh Free Flap after Glossectomy:  
A Case Report and Literature Review



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**Purpose:** Free flap reconstruction is a standard method for restoring function after major tongue resection; however, recurrence confined to the transferred flap tissue itself is exceedingly rare. We report a rare case of squamous cell carcinoma (SCC) recurring within an anterolateral thigh (ALT) free flap after hemiglossectomy despite initial R0 resection.

**Methods:** A 33-year-old woman with no history of smoking or HPV infection underwent wide excision of right tongue SCC with right elective neck dissection. The primary lesion and initial surgical specimen are shown in (Figure 1). Immediate reconstruction was performed using a right ALT free flap, and the harvested flap and reconstructed tongue are shown in (Figure 2). Initial histopathology revealed moderately differentiated SCC with clear margins greater than 5 mm and no nodal metastasis. Postoperative recovery was uneventful, and contrast-enhanced CT at 3 months showed no evidence of residual disease.

**Results:** At 4 months postoperatively, a small superficial ulcer developed on the skin paddle of the ALT flap (Figure 3). The lesion was initially suspected to be a traumatic or inflammatory ulcer, but it progressively enlarged and became indurated over the following 2 months. Punch biopsy confirmed recurrent SCC within the flap. At 8 months after the initial operation, salvage wide excision including the previous flap and adjacent tongue base was performed, and the resected salvage specimen is shown in (Figure 4). This case demonstrates that

flap-confined recurrence can occur even after clear-margin resection and initially unremarkable postoperative imaging.

**Conclusions:** Persistent or non-healing ulcers arising on a reconstructed free flap should not be regarded as simple postoperative complications alone. Early biopsy and close surveillance are essential, because aggressive SCC recurrence may occur within flap tissue even after initial R0 resection. Possible mechanisms include tumor seeding during reconstruction or invasion of microscopic residual disease into the highly vascularized flap tissue.



Figure 1. Preoperative intraoral photograph showing the ulcerative lesion on the right lateral tongue and gross photograph of the initial resection specimen.



Figure 2. Gross photograph of the harvested anterolateral thigh free flap with pedicle and immediate postoperative intraoral photograph showing flap inset after tongue reconstruction.

EP-023



**Figure 3.** Follow-up clinical photographs showing a focal ulcerative lesion arising on the skin paddle of the ALT flap, which was initially suspected to be traumatic or inflammatory but was later confirmed as recurrent SCC.



**Figure 4.** Gross photograph of the salvage resection specimen obtained after confirmation of SCC recurrence within the flap.