Resuming Oral Feeding in Patients With Oral Squamous Cell Carcinoma With Free Anterolateral Thigh Flap Reconstruction

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Background: Quality of life and functional improvement have emerged as important treatment goals for patients with oncologic diseases. For patients with head and neck cancer, free anterolateral thigh (ALT) flaps provide reliable reconstruction and provide functional restoration. Nevertheless, the factors affecting the resumption of oral feeding have been rarely described. This study aimed to evaluate and compare the oral feeding outcomes among patients with different oncologic defect patterns and reconstructive ALT flap designs.

Methods: We retrospectively reviewed patients with head and neck cancer who underwent oncologic ablation and free anterolateral thigh (ALT) flap reconstruction between January 2016 andApril 2018 at National Taiwan University Hospital. Patients were categorized into two groups as through-and-through (T&T) and non–through-and-through (non-T&T) according to the defect pattern. T&T patients were further subdivided into lip resection/lip sparing based on lip involvement. Two reconstructive ALT flap designs were used, folded (F-ALT) and chimeric (C-ALT). Oral feeding outcomes were analyzed using descriptive statistics, and differences between groups were compared using the Student's t test.

Results: We identified 233 patients who underwent oncologic ablation and free ALT flap reconstruction. There was no significant difference in functional recovery between the T&T and non-T&T groups (81.2% vs 73%, P = 0.137). However, among patients who successfully resumed oral feeding, those in the lip-sparing group demonstrated better functional recovery, including earlier resumption of oral feeding within 6 months and nasogastric tube removal, than those in the lip-resection group (100% vs 83.3%, P = 0.001). Moreover, the folded ALT(F-ALT) flap design was associated with a higher success rate in of successful oral feeding resumption than the chimeric ALT (C-ALT) flap design (90.5% vs 54.6%, P = 0.032).

Conclusions: Patients with head and neck cancer and through-and-throug (T&T) defects had higher rates of secondary flap revision and showed a trend toward delayed resumption of oral feeding. In the long term, the folded anterolateral thigh (F-ALT) flap design was associated with better oral feeding outcomes than the chimeric anterolateral thigh (C-ALT) flap design among patients with T&T defect.

Key Words: head and neck cancer, free anterolateral thigh flaps, functional outcomes, oral feeding