exposed bone. It provides excellent contour restoration and stable long-term reconstruction. In future cases it may be possible to shorten the time frame of the reconstructive process.

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**Modification of the Radial Forearm Fasciocutaneous Flap in Partial Pharyngolaryngeal Reconstruction to Minimize Fistula Formation**

**Adrian S.H Ooi, MBBS, MMed; David W. Chang, MD**

**INTRODUCTION:** Reconstruction of pharyngo-laryngo-esophageal (PLE) defects secondary to cancer extirpation is a challenging problem, especially with a prior history of radiation therapy.\(^1\) Circumferential defects or those involving >50% of the PLE require flap reconstruction.\(^2\) We describe a modified RFF harvesting and insetting technique that results in an additional layer of dermal layer closure to reinforce the neo-pharyngeal suture line for partial PLE defects, reducing the risk of salivary leak and fistula.

**MATERIALS AND METHODS:** A trapezoidal RFF is marked with appropriate dimensions to reconstruct the defined defect. The flap is modified by adding an additional 1 cm margin at the edges. This portion is de-epithelialized to provide a second well-vascularized reinforcement layer to the construct. On flap inset, the skin edges are first sutured to the mucosal defect edges, followed by suturing of the de-epithelialized portion of the flap as a second, water-tight layer to the surrounding fascia. Microvascular anastomosis is then completed.

**RESULTS:** We performed the modified RFF for 3 patients who underwent salvage surgery to the larynx after receiving prior high-dose radiation therapy. There was one post-operative complication of neck hematoma that required evacuation in 1 patient. All flaps survived, and at 3 weeks post-operatively swallow studies showed no evidence of leak, stricture or fistula. All patients were taking soft diet at 3 months after the operation.

**CONCLUSION:** The holy grail of reconstruction for the defects in the PLE region are no salivary leaks, the ability to swallow and adequate voice rehabilitation. We report the successful use of a modified RFF in 3 patients with partial PLE defects, history of prior radiation and confounding comorbidities leading to unfavorable wound healing factors. We utilized the skin portion of the RFF to fill the mucosal defect, with a second layer of robust well-vascularized dermis to further seal the construct and prevent leakage. Our patients achieved satisfactory healing, with successful per oral feeding after a period of swallowing rehabilitation.

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**Mohs Resection of Alar Rim Basal Cell Carcinomas: Medial-Caudal Positive Margins Are More Common**

**Jennifer N Redwood, MSc; Jill Stone, MD; Alexandra D. Frolkis, BSc; Jeffrey C Dawes, MD, MBA**

**PURPOSE:** The purpose of our study was to examine the largest retrospective cohort of patients who have undergone Mohs surgical treatment for basal cell carcinomas (BCC) of
the ala. A novel method of analyzing Mohs maps was created to examine directionality of positive margins.

**MATERIALS AND METHODS:** All patients undergoing reconstruction following primary BCC excision of the nasal alae were recruited through a single institution. Patient demographics, details of resection and reconstruction were recorded. Positive margins were scored using a quadrant-based directionality system. Defect size was classified as large or small stratified by median defect area. Fisher’s exact tests were performed.

**RESULTS:** A total of 124 patients (63 male; 61 female) were included in this study. Mean age at time of surgery was 67 ± 12.7 years. Most patients required multiple levels for dermatopathological clearance (n=101, 81.5%). Directionality was found to be preferentially positive in the medial-caudal direction (n=22, 18%), medial-cephalad direction (n=13, 11%), and lateral-caudal direction (n=10, 8%). Median defect area was 0.81cm² (Q1: 0.55–1.5). Defect size significantly influenced reconstructive method (p<0.01). Small defects were commonly treated with secondary intention (n=24, 40%), while larger defects were reconstructed with nasolabial flaps and full thickness skin grafts (n=15, 25% and 22%). Follow-up time ranged from 0–87 weeks and complications were low (n =14, 11.2%).

**CONCLUSION:** Surgical margins are preferentially positive in the medial-caudal direction in the alar region. A negative margin in Mohs surgery is an acceptable method of ensuring oncological clearance in a sensitive cosmetic area, which historically has had high recurrence rates when treated without Mohs. Reconstruction under local anesthetic is safe and complication rates are low.

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Multiple Peripheral Osteomas Related with Frontal Exposure by Bicoronal Incision

**Hidetaka Watanabe, MD; Shigenari Kawano, MD; Mamoru Kikuchi, MD; and Tetsuji Uemura, MD**

**INTRODUCTION:** The purpose of this presentation is to present the clinical features of a rare case of multiple osteomas most suspiciously caused by the activity of the periosteum in the exposed area by a bicoronal incision made ten years earlier.

**MATERIALS AND METHODS:** A 12-year-old boy presented with a complaint of swelling in the forehead. Tumors that were found, with a maximum size of 2.0 x 2.0 cm, gradually grew during the following four years. The patient had a history of surgery for excision of foreign body in the intra-orbit ten years earlier. The hard bone-like tumors were otherwise asymptomatic. There was no history of similar findings within the family.

**RESULTS:** A histopathological examination showed four pathologically compact-type osteomas.

Osteoma of the skull is a benign slow-growing osteogenic lesion typically composed of well-differentiated mature bone tissue. It is characterized by the proliferation of compact or cancellous bone and is found almost exclusively in the head and neck region. Central, peripheral and extra-skeletal are the major variants of craniofacial osteomas. Trauma, inflammation, developmental disorders, and genetic defects are considered as their etiologic factors. Paranasal sinuses, especially frontal and ethmoidal sinuses, are the favorite location of peripheral craniofacial osteomas.

**CONCLUSION:** Peripheral osteomas are usually benign, innocuous lesions, but their size, prominence and visibility on the face necessitates a surgical intervention. We describe a rare case in which multiple osteomas were located in the frontal area likely related with an exposure of the site by bicoronal incision made ten years earlier.

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Nail Bed Defect Reconstruction Using Thenar Fascia Flap and Nail Bed Graft

**Youngin Ha, MD; Mingue Lee, MD; Kyungjin Lee, MD; Dongchul Lee, MD; Siyoung Roh, MD; Jinsoo Kim, MD**

**INTRODUCTION:** Split-thickness nail bed graft is the most preferred treatment option for covering nail bed defects. However, full-thickness loss of nail bed soft tissue