Effect of Local Flaps Used for the Reconstruction of Nasal Tip Tumors on the Function of Nasal Valves

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INTRODUCTION: Nasal valves are the most important regulator of nasal airway. Nasal valve dysfunctions are observed after removal of skin cancer at the nasal ala, crease and lateral side wall. We studied that effect of forehead flap, nasolabial island flap and bilobe flap on function of the internal and external nasal valve in the reconstruction of nasal tip tumors.

METHODS: 60 patients who had non-melanocytic skin cancer on the only nasal tip were included in this study. There was no previous history of nasal surgery, allergic rhinitis, concha hypertrophy and other breathing problems in any patients. Six patients were treated with forehead flap, ten patients nasolabial island flap, twenty patients bilobe flap that based on inferior, 24 patients bilobe flap that based on superior. Function of the internal and external nasal valves were evaluated by preoperative and postoperative comparison of Cottles test, nasal endoscopy and digital phography of nares during forced inspiration and expiration and were followed up 1-years.

RESULTS: There was no breathing problem in patients treated with forehead and nasolabial flap. Chronic stuffy nose, external valve collapse and positive Cottles test was observed in three, two and one of twenty patients who treated with bilobe flap based on inferior, four and four of 24 patients who treated bilobe flap based on superior, respectively.

CONCLUSIONS: Nasal reconstruction has not only aesthetic, but also functional consequences. The nasal valve dysfunction can be substantially parallel with the amount of dissection during surgery on the nasal skin. According to our study, rejyonel flaps don’t effect nasal valves functions.

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Reconstruction of Nasal Tip Defects with Superior-Based Pedicle Nasolabial Island Flap

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INTRODUCTION: Nasal tip reconstruction is a very challenging surgical procedure in aesthetic and reconstructive surgery. The main purpose of nasal tip reconstruction is to repair with similar texture tissues without disturbing facial aesthetics and function. In this study, reconstruction of the nasal tip defects with superior-based tunnelized pedicle nasolabial island flap is presented.

METHODS: 10 patients who were operated for non-melanoma skin cancer including nasal tip area were included in the study. Patient’s medical records were reviewed, digital photography was taken before surgery. All of patients were assessed by detailed physical, ultra-sonographic, endoscopic nasal-airway examination. Each lesion was excised with at least 5mm margin. An elliptical-shaped superior pedicle nasolabial flap was designed based on angular artery. Pedicle of flap was dissected cephalic direction and subcutaneously to the superior of the defect area. The flap was moved to the defect by a tunnel. At the 12th month postoperatively, symmetry of nasal shape and face were evaluated with patient satisfaction scale (-1: not satisfied, 0: neutral, 1: moderate, 2: good, 3: very satisfied).

RESULTS: 4 patients were male, 6 female and ages ranged from 61 to 83 years (mean 72.1). In all patients, there was no pathological lymph-node and no internal and external nasal valve dysfunction. Defects were between 4 cm² and 7.56 cm² after surgical excision. There were no infection, hematoma and total flap failure; but a partial (20%) flap necrosis due to venous congestion was seen in one diabetic patient and treated
conservatively. None of the patients had sensory, speech, chewing and laughing problems after surgery. Temporary sagging of upper lip related to levator muscle damage was seen in one patient, but it improved at 6th month. Three patients were good and 7 patients were very good satisfied with nasal shape and face symmetry. Nine patients reported that the donor site of the face looked like younger than other; one of them didn’t. Nasolabial scar healed uneventfully in all patients.

CONCLUSION: Various flaps have been defined for nasal tip defects. However, many flaps cause donor site morbidity, seconder intervention for defatting and revision, stage repair. Superior pedicle nasolabial island flap is an alternative flaps used in nasal reconstruction because of texture and color matching, minimal donor site morbidity, good and constant nutrition, safety and transportability to all nasal subunits.

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Rapidly Progressing Skull Osteolytic Metastasis Originated from Lung Squamous Cell Carcinoma Presenting as Forehead Hematoma

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INTRODUCTION: While the bone is a well-documented metastatic site of lung cancer, the incidence of metastasis to the skull is low. Furthermore, squamous cell carcinoma of the lung with rapidly progressing skull osteolytic metastasis is extremely rare. We report a rare case of a patient with a lung squamous cell carcinoma presenting as forehead hematoma.

METHODS AND RESULTS: An 84-year-old male patient presented a 1-month history of a forehead hematoma. His medical history was unremarkable except 30 pack-year smoking history. The patient incurred a minor trauma on his forehead 1 month before. He received an incision and drainage procedure at a local clinic. However, the hematoma gradually increased in size. Examination revealed a hard, non-tender solitary mass with ulcerated skin measuring 6.5 × 6.0 cm on the right frontal area. We performed an excision, and biopsy revealed a moderately differentiated squamous cell carcinoma with a desmoplastic stromal reaction. A computed tomography scan demonstrated a skull metastasis with destruction of the frontal bone and extension of the lesion into the extracranial soft tissues. Chest PA examination performed on the day of admission showed an extensive right-sided opacity. Chest CT revealed a mass in the right lower lobe measuring 6.7 cm with a loculated right pleural effusion. The chest radiograph was suggestive of carcinoma of the lung as the primary tumor. However, the patient wanted to receive only conservative management and refused additional evaluation and treatment. Thus, we planned a hematoma evacuation and simple debulking surgery with consent from the patient.

CONCLUSION: Several cases of metastatic lung adenocarcinoma metastasizing to the skull have been reported. However, the case reported herein is a rare case of osteolytic skull squamous cell carcinoma presenting as forehead hematoma originating from the lung, particularly in a short term of within 1 month. The present case is interesting because of the presenting feature of the underlying lung carcinoma was an osteolytic metastatic lesion in the skull, concealed by forehead hematoma. In our case, forehead hematoma was only presenting symptom. Despite the rarity of malignancy of forehead hematomas, consensus has been reached that malignancy should be suspected in cases of lesions that are large and rapidly changing in size, and that an associated microscopic study of lesion should be performed to exclude malignancy.