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 and in four, four and two 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 tunnellized 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 subcutaneous 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 lymphnode 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...