Bilateral Nasolabial Flap Restoration of Lip Height in Rhinectomy

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Abstract

Objectives: To describe the role of bilateral superiorly based nasolabial flaps in rhinectomy reconstruction following total rhinectomy.

Study Design: Retrospective analysis.

Materials and Methods: Patients undergoing total rhinectomy by the senior author at a tertiary care institution from 1997 to 2009. Five patients underwent total rhinectomy with reconstruction via bilateral superiorly based nasolabial flaps. Four of these five patients had a history of nasal tumor resections. Three patients (60%) had pre-operative external beam radiation, while the other two patients (40%) had no history of radiation. All patients were male with an average age of 59 years. Three patients died an average of 110 months following total rhinectomy. Two had larger lip, septum, columella, ala defects or oral incompetence greater than five years post-operatively and passed away with no evidence of disease. One patient actively participating in follow up surveillance, and one patient lost to follow up.

Results and Discussion

Five patients underwent total rhinectomy with reconstruction via bilateral superiorly based nasolabial flaps. Four of these five patients had a history of nasal tumor resections. Three patients (60%) had pre-operative external beam radiation, while the other two patients (40%) had no history of radiation. All patients were male with an average age of 59 years. Three patients died an average of 110 months following total rhinectomy. Two had larger lip, septum, columella, ala defects or oral incompetence greater than five years post-operatively and passed away with no evidence of disease. One patient actively participating in follow up surveillance, and one patient lost to follow up.

Conclusions

• Significant upper lip height defects accompany total rhinectomy in many patients.
• Bilateral superiorly based nasolabial flaps based on the rich subdermal plexus are an invaluable source of local tissue for upper lip reconstruction in many patients.
• It is important to monitor for signs of healing difficulties, particularly in patients undergoing preoperative or postoperative radiation therapy.

References

7. 4.  Lorenz K, Maier H.  One-stage reconstruction of the entire upper lip and the columella with a modified bilateral nasolabial flap.

Acknowledgments

This study was supported in part by the Vanderbilt Institute for Clinical and Translational Research with funding from Vanderbilt Clinical and Translational Science Award (CTSA) grant number 1 UL1 RR024975 from NCRR/NIH.