

Extended Paramedian Forehead Flap for Nasal and Upper Lip Defect Reconstruction: A Case Report

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Introduction

- Reconstructing large nasal defects poses significant challenges due to the complex topography, distinct aesthetic subunits, and varying skin characteristics of the region.
- The paramedian forehead flap is a reliable technique for nasal reconstruction, offering a close match in skin characteristics and robust vascularity.
- Cutaneous defects involving both the nose and upper lip are rare but require meticulous planning due to their anatomical and functional complexity.
- This case report details the use of an extended paramedian forehead flap for reconstructing a combined nasal and upper lip defect.

Methods and Materials

- A 55-year-old man with active tobacco use and a multiply recurrent basal cell carcinoma of the right nasal ala presented with a new lesion involving the nasal tip, right nasal sidewall, alar lobule, right upper lip, and cheek.
- Surgical excision involved the resection of the nasal musculature and underlying cartilaginous structures resulting in exposed bone.
- Reconstruction utilized an extended paramedian forehead flap, incorporating hair-bearing tissue for mustache restoration.



Figure 1. Intraoperative images (A) pre- and (B) post- reconstruction. The exposed deep surface of the flap superiorly was covered with a full thickness skin graft (B).

Results

- Despite slight distal venous congestion postoperatively, the flap demonstrated appropriate healing.
- A second-stage procedure one month later detached the flap and restored nasal vestibular structure.
- The flap's robust vascularity allowed for successful reconstruction with aesthetically factorable outcome including the restoration of hair-bearing skin, good nasal patency, and good upper lip function supporting oral competence, facial expression, and speech.



Figure 2. Fully healed expanded paramedian forehead flap one year postoperatively. There is some contour mismatch at the nasal reconstruction creating a demarcation relative to the native nasal skin. Well healed upper lip with restoration of mustache hair.

Discussion and Conclusion

- The paramedian forehead flap remains a cornerstone technique in reconstructive surgery.
- Its application in this case ensured structural support, functional restoration, and aesthetic blending.
- This underscores its effectiveness for addressing extensive defects involving multiple facial subunits, offering reliable outcomes in challenging clinical scenarios.

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