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Turnover Flap of the Nasal Dorsum Combined With a Rotation Advancement Flap to Reconstruct a Full-Thickness Defect of the Nasal Tip and Wall



Colgajo combinado invertido de dorso nasal y de avance-rotación para reparación de defecto de espesor total en punta y pared lateral nasal

M. Azcona Rodríguez,* L. Loidi Pascual, J. Aróstegui Aguilar, M.E. Iglesias

Servicio de Dermatología del Complejo Hospitalario de Navarra, Pamplona, Navarra, España

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Introduction

Carcinomas on the nasal pyramid are very frequent, and reconstruction of this area is a surgical challenge, not only because of the major esthetic impact of this facial subunit but also because it is important to maintain functionality. Several procedures have been described for the reconstruction of the surgical defects in this site¹ and there are 3 fundamental requirements to obtain a good esthetic outcome.² First, it is important to determine the characteristics of the cutaneous defect, that is, its site, extension, and depth. Second, reconstruction of the defect should aim to use skin as similar as possible to the excised skin. Finally, it should be remembered that the esthetic subunits of the nose (nasal dorsum, nasal walls, nasal alae, triangular cartilage, tip of the nose, and columella) should be left intact.³

We describe the surgical technique and reconstruction performed in an 84-year-old man who had undergone an intervention for solid, invasive, ulcerated basal cell carcinoma in the right nasal wall. The surgical defect was initially

reconstructed with a spiral flap, but the pathology report showed involvement of the lateral and deep margins of the resection, so a second full-thickness resection was considered to ensure an optimal oncological outcome.

Description of the Technique

Under local anesthetic, full-thickness excision of the tissue of the initial wound was performed. This included cartilage and mucosa, to create a circular defect of approximately 14 mm in diameter at the intersection between the tip of the nose with the ala and the right nasal wall, approximately 5 mm from the free border. In the histological study, all surgical borders were tumor free. A crescentic nasojugal turnover flap with an upper pedicle was designed.² This is a modification of the horizontal J rotation flap.³ A line was traced from the upper part of the defect, continuing in an arched form above the nasal ala until reaching the alar crease and extending to where the nasal ala joins the upper lip. A half-moon discharge was designed in the alar crease to facilitate advancement from the cheek. For better advancement of the flap and to avoid dog ear formation, it was necessary to cut a discharge triangle in the upper-lateral area of the defect, from the base of the defect and the tip towards the nasal wall.

* Corresponding author.

E-mail address: maialen.azcona.rodriguez@navarra.es (M. Azcona Rodríguez).

In our case, this triangle was used as a turnover flap,⁴ to reconstruct the mucosal face of the defect created. A base pedicle was cut proximal to the surgical defect to act as a pivot to turn over the flap. After suturing to the nasal cartilage with resorbable 3/0 stitches, the crescentic nasojugal flap was detached, leaving plenty of margin, to reach the limit between the nose and the cheek. Submuscular dissection was performed, just above the fascia that encase the perichondrium.

In our patient, we found that the flap moved easily to completely cover the defect without resorting to the previously designed discharge halfmoon in the alar crease. The flap was sutured with loose silk 3/0 stitches.

Indications and Contraindications for the Technique

The indications for this combination of flaps are the same as those for the crescentic nasojugal flap (defects on the tip of the nose not more than 20 mm in the medial or paramedial area²) when the defect is full thickness. The defect should be at a reasonably safe distance from the free border of the nasal ala.

Complications

The patient had a satisfactory postoperative outcome, with daily dressing changes. The suture was removed after 7 days. The outcome of the turnover flap was very good. In the area of the tip of the nose, the crescentic flap led to limited surface necrosis which resolved satisfactorily with local dressing changes in a few days.

Conclusions

We describe a case in which we use a combination of 2 flaps. This approach could be useful to resolve full-thickness defects located on the tip of the nose.

Full-thickness excision ensures a good oncological outcome, and this is the primary objective of oncological surgery.

The crescentic nasojugal flap offers a solution for reconstruction of defects of the tip of the nose with a very good esthetic outcome as the reconstruction is performed with skin with very similar characteristics to the resected skin, and the incisions are hidden in the natural folds of the nose. In addition, this is a safe flap as it has a very broad pedicle that ensures its viability.

Of note is that this combination of flaps takes full advantage of the Burow triangle in the upper part of the defect as the donor area for reconstruction of the mucosal face of the defect created.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:<https://doi.org/10.1016/j.ad.2019.10.006>.

References

1. Pérez Paredes MG, González Sixto B, Valladares Narvanes LM, Rodríguez Prieto MA. Techniques in nasal tip reconstructive surgery after surgical oncology. *Piel*. 2013;28(4347):428–35.
2. Smadja J. Crescentic Nasojugal Flap for Nasal Tip Reconstruction. *Dermatol Surg*. 2007;33(1):76–81.
3. Snow SN, Mohs FE, Olansky DC. Nasal Tip Reconstruction: The Horizontal 'J' Rotation Flap Using Skin from the Lower Lateral Bridge and Cheek. *J Dermatol Surg Oncol*. 1990;16(8):727–32.
4. Godoy-Gijón E, Palacio-Aller L, González-Sabin M. Reconstruction of the ala nasi using a malar turnover island pedicle flap. *Actas Dermosifiliogr*. 2015;106(April (3)):233–5, <http://dx.doi.org/10.1016/j.ad.2014.07.001>. Epub 2014 Sep 26.