# Glabellar flap as treatment in nasal resection of basal cell carcinoma. A case report

**Marcela Rojas Hurtado M.D.**
**José Luis Villarreal Salgado M.D.**
**Miroslava Villarreal Contreras M.D.**
**Gerardo Salvador Rea Martinez M.D.**
**Samanta Cristina Arce Oliva M.D.**
**José Maria Martinez Rodriguez M.D.**
**Itzel Arelí Murillo Moreno M.D.**
**Carlos Enrique Luna Guerrero M.D.**
**Claudia Verónica Elizabeth Vargas Hernández M.D.**

*Jalisco, Mexico*

**Background**
Basal cell carcinoma is the most common type of skin cancer, occurring mainly in the face and neck region. The main risk factor is related to exposure to UVB radiation waves, related to the intensity and duration of sun exposure. The most common picture is a pearly elevation with translucent margins, being more common in the nose and neck. A biopsy is necessary as well as total resection with margins of 2-5mm.

**Keywords:** Basal cell carcinoma, Head and neck reconstruction.

Case Report

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Basal cell carcinoma is the most common type of skin cancer, between 75-80%, 80% of which occur in the head and neck region, followed by the trunk and perianal region.

The main ethological factor in the development of basal cell carcinoma is exposure to ultraviolet light, particularly UVB wavelengths. The duration and intensity of exposure, particularly in childhood and adolescence, play a fundamental role; intense and intermittent exposure, being more common in white skin types 1 and 2, with a family history of this cancer.[2]

The mechanism of action of carcinoma formation through radiation is direct DNA damage, melanin absorbs UVA rays and directly damages DNA through free radicals, as well as a dose-dependent suppression of the cutaneous immune system which impairs the immune surveillance of skin cancer.[3]

Histologically the characteristic feature is islands or nests of basal cells, with palisaded cells at the periphery, with a disordered arrangement in the center of the islands. Several histologic subtypes have been defined including superficial, nodular, micro-nodular and cystic. The nodular variant represents the majority of cases, which is composed of peripheral palisaded islands of cells in a disordered arrangement and there may be ulceration in large lesions.[2]

The most common picture is an elevated tumor with a pearly, translucent margin and telangiectasias. The tumor may be enlarged or ulcerated, the patient often presents with crusting or bleeding. It is most common on the nose, cheeks and forehead.[4]

A biopsy should be performed on all suspicious lesions followed by wide resection, with standard surgical margins of 2-5mm when previously untreated or approximately 1cm for recurrent tumors.[2]

## Case report

This is a 69 year old female patient, with no previous history of importance, who refers to start with a hyperchromic lesion of irregular edges in the left dorsal nasal region, so she is sent to the Dermatology service of the Regional Hospital Valentin Gomez Farias, where excisional biopsy of the lesion is performed with a histopathological result of basal cell carcinoma with lesion in lateral surgical limit, so she is referred to the plastic surgery service of the same unit for resection with enlargement of surgical margins.

After evaluation by our service, she was considered a candidate for resection of the lesion with subsequent glabellar flap to cover the defect.

In conjunction with the dermatology department, dermatoscopy was performed with marking of the edges of the lesion and subsequent marking of the glabellar flap. After infiltration with local anesthetic, a block dissection of the lesion is performed with a minimum margin of 4mm. Subsequently, the flap was cut and dissected, taking off completely up to the lateral area of the pedicle, complemented with a Borow triangle and overlapped

*From the Plastic and Reconstructive Surgery Department, Hospital Regional Valentín Gomez Farías, ISSSTE, Zapopan, Jalisco, México. Received on October 17, 2023. Accepted on October 24, 2023. Published on October 26, 2023.*


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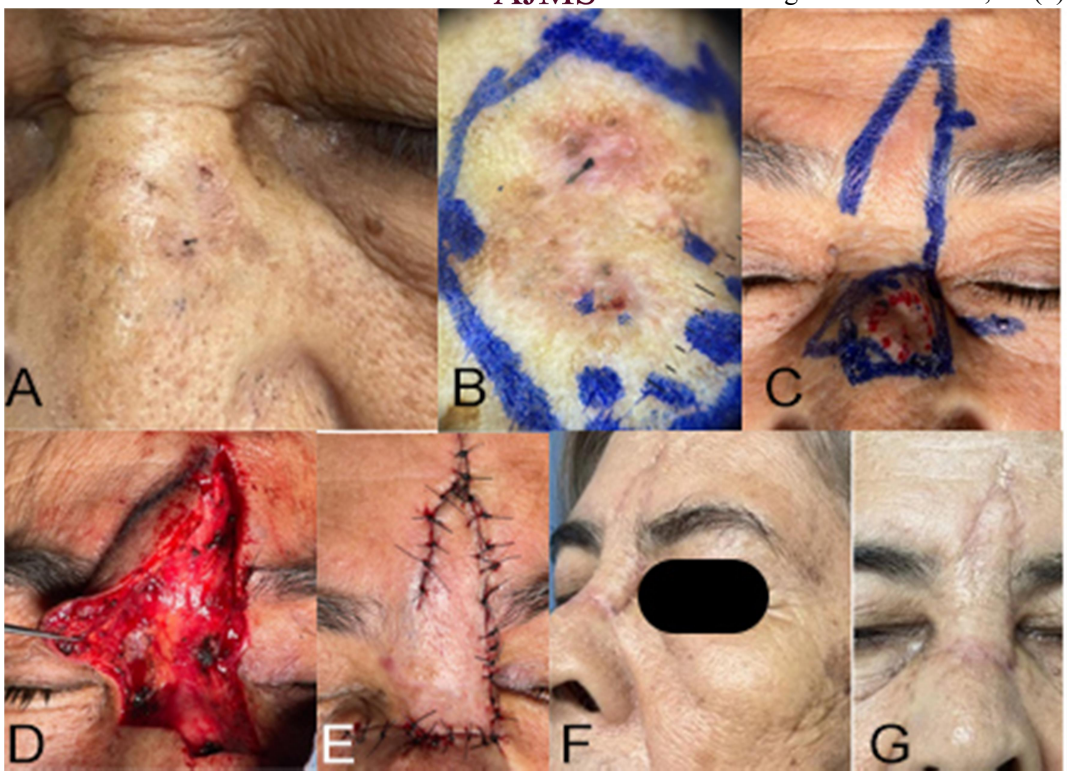


**Figure 1.** A. Lesion in the lateral region of the nasal dorsum, pearly, with irregular borders. B. Dermatoscopy, with at least 4mm margin marking. C. Glabellar flap design, with Burrow's triangle and lesion resection. D. Glabellar flap. E. Immediate postoperative results. F. 6th Postoperative week.

over the defect with adequate coverage and without tension, sutured with simple 5-0 nylon stitches and placed a patch with Vaseline gauze.

Subsequent follow-up was performed after 2 days, 2 weeks and 6 weeks, with a histopathologic result of basal cell carcinoma with free margins of lesion and an adequate aesthetic result.

## Discussion

The nose is a frequent site of cutaneous tumors, especially basal cell carcinoma. Despite not representing lesions with high risk of metastasis, these areas are of great aesthetic compromise for the patient.[5]

The reconstruction of surgical defects of the nasal pyramid is a challenge that the surgeon must face. Small surgical defects can be solved with direct closure or second intention healing, but more extensive lesions often require the use of local flaps or skin grafts.[1]

The skin of the glabellar region has been used frequently in nasal pyramid defects because of its good irrigation, good tissue supply and high mobility. The glabellar flap is a V-Y advancement transposition flap of the glabellar region, which in its different variables can be used in defects of the nasal dorsum, nasal tip, lateral walls and nasal ala.[1]

It allows the displacement of the glabellar skin and the nasal dorsum with great amplitude respecting anatomically the nasal lateral wall on that side, although a Burow's triangle must be included on the opposite side.[5]

The great advantage of these flaps is their versatility, since their dissection can be varied according to surgical needs, such as location, size and depth of the defect.

In our patient, the size of the lesion and the location allowed an advancement flap such as this one to be sufficient to cover the defect. Postoperative care, recovery and adequate healing made possible the aesthetic and functional results of the affected region.

## Conclusion

We can conclude that in the case of basal cell carcinomas with positive margins, a wider resection of the lesion is necessary and in this case, the choice of a glabellar flap was adequate both esthetically and functionally to cover the defect. Each lesion should be evaluated individually to choose the treatment, either flap or graft, that best suits each patient.

## Conflicts of interests

There was no conflict of interest during the study, and it was not funded by any organization.

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Marcela Rojas Hurtado
Plastic and Reconstructive Surgery Department
Hospital Regional Valentín Gomez Farías
ISSSTE, Zapopan
Jalisco, México.

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