

H-shaped flap for basal cell carcinoma reconstruction. A case report

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Case report

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Background

Skin cancer represents the most frequent malignant tumor worldwide, with basal cell carcinoma (BCC) being the most frequent type of skin neoplasia. The evolution is essentially local, and metastatic forms are exceptional. The reference treatment is surgery, with histological control, but some tumors with a good prognosis can be treated with topical treatment or by local destruction. We present the case of a 68-year-old male patient with bacocellular carcinoma in the right ciliary region, who underwent resection of the lesion and coverage of the defect using an H-shaped flap. This flap is currently an excellent alternative for reconstruction of this area.

Keywords: H flap, basal cell carcinoma, eyebrow reconstruction.

Skin cancer represents the most frequent malignant tumor worldwide, with basal cell carcinoma (BCC) being the most frequent type of skin neoplasia. This tumor originates from the basal layer of the epidermis or from the hair follicle bulb, and its pathogenesis has been increasingly investigated over the years due to the increase in incidence, which tends to increase with age and predominates in light-skinned people. The main risk factor is exposure to ultraviolet rays, although a series of mutations have been identified in some tumor suppressor genes and alterations in the Hedgehog signaling pathway; both situations related to its pathogenesis.

Although BCCs tend to grow slowly and their metastatic power is very low (0.0028-0.55%), if they do not receive adequate treatment they can cause great tissue destruction, particularly on the face, and can even infiltrate the bone and deeper structures. However, their course can be unpredictable, some of them remaining small for many years, others may show tumor regression or, conversely, they may grow rapidly and invade large areas of tissue.

Additionally, BCCs have been classified into high-risk and low-risk subtypes. Those at high risk include morpheiform, infiltrating, micronodular, those with perineural or perivascular invasion, those with a diameter > 5 cm, recurrent ones, those located in the center of the face or in areas close to vital organs

(periocular and periauricular) and those that occur in immunosuppressed patients. The low-risk ones include the superficial and nodular subtypes when they are located in a low-risk area.

In some tumors with a good prognosis they can be treated with topical or by local destruction, however the reference treatment is surgery.

We present a 50-year-old male patient who underwent resection of a malignant skin lesion, managed with an H.

Case report

This is a 68-year-old male, an agronomist by profession, with a history of chronic exposure to sunlight since he was 13 years old, related to work activities. He started his condition four years ago due to the presence of a tumor in the right ciliary region, said current lesion, asymmetric, with indurated edges, atrophic center with superficial excoriation, reddish and brownish coloration, with a size of 12x18 mm.

During the study protocol, he was evaluated by the dermatology and surgical oncology service, an incisional biopsy was performed, reporting in the histopathology morpheiform basal cell carcinoma, infiltrating and positive for malignancy; Subsequently, he is referred to the reconstructive surgery service for

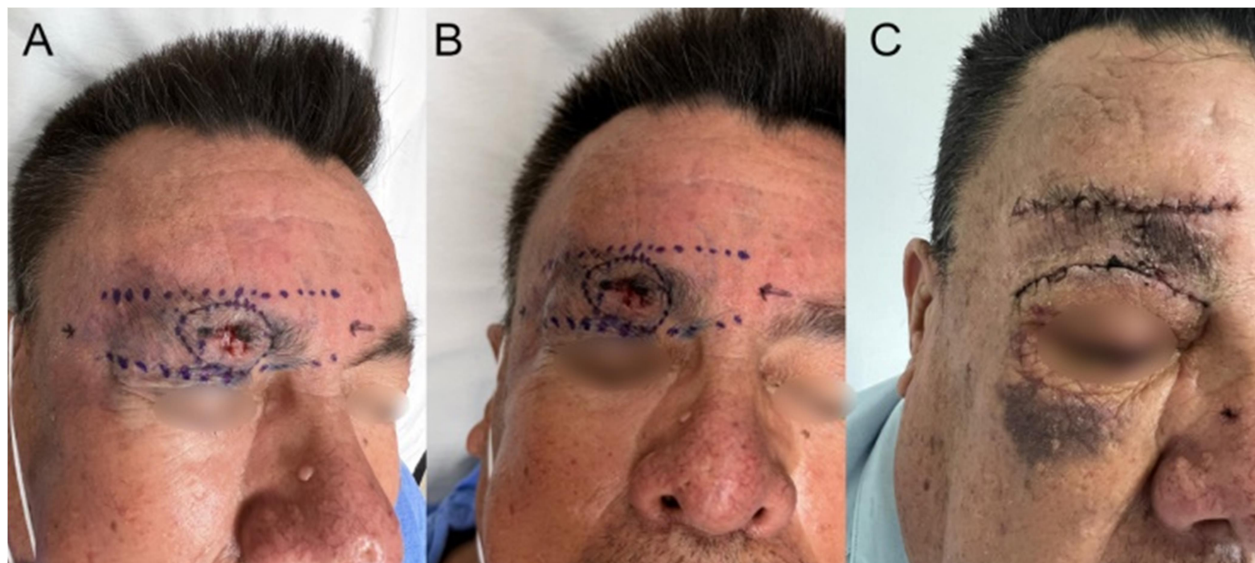


Figure 1. A. Malignant lesion (outlined). B. Frontal view. C. Immediate post-surgery, resection of basal cell carcinoma with an H-shaped flap. Well-facing edges of the skin are observed and with an adequate aesthetic result.

surgical planning and reconstruction of malignant lesion.

It was decided to perform resection of the lesion and coverage of the defect using an H-shaped flap, said procedure carried out without complications and managed on an outpatient basis.

Discussion

The current literature strongly relates exposure to ultraviolet rays as the main risk factor for the development of basal cell carcinoma.

The clinical appearance and morphology of BCCs can be variable, which is why more than 26 subtypes have been described. The main clinical subtypes are: nodular, superficial, ulcerated (ulcus rodens), morpheiform (sclerodermiform), fibroepithelial (Pinkus fibroepithelioma) and advanced or invasive BCC. The histopathological patterns are also varied and include: the nodular, superficial, morpheiform, micro- and macronodular, infiltrative, pigmented, and metatypic subtypes. The most frequent subtypes are nodular and superficial, and the most common anatomical area of location is the head and neck.

The evolution is essentially local, and metastatic forms are exceptional.

There are different treatment alternatives. The use of topical imiquimod in basal cell carcinoma has been associated with adequate cosmetic results; however, there is the possibility of recurrence at three and five years. Currently, surgical treatment continues to be the choice.

In the surgical treatment of this type of tumor, the H-shaped or double pedicled flap is an excellent reconstructive tool. This flap is a type of horizontally

advanced myocutaneous flap widely used for the correction of square or rounded defects, especially in the frontal area, since it takes advantage of wrinkles or expression lines; In addition, the size of the flap can be divided into two parts, which makes it more accessible in parts where the advancement of the flap is limited by the low elasticity of the skin; For this reason, the H-shaped flap not only guarantees total resection of the lesion, it also offers better aesthetic results.

Conclusion

Basal cell carcinoma is the most common type of skin cancer worldwide. Currently, there are easily accessible diagnostic tools that allow earlier and more timely detection of the disease.

However, this skin neoplasm continues to generate a considerable public health problem due to its significant morbidity and incidence, which leads to a high economic cost in the health area.

Several treatment options are currently offered, such as the use of imiquimod and radiotherapy, however surgical resection currently remains the gold standard. In this case, surgical resection and reconstruction with a local H-shaped flap were performed, obtaining excellent results.

Conflicts of interests

The authors declared having no conflicts of interest.

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