

Basal cell carcinoma of the medial canthus: resection and reconstruction by glabellar flap

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ABSTRACT

The inner canthus is the site of aggressive basal cell carcinomas. The management of these tumors requires knowledge of the basic principles of reconstruction in reconstructive surgery. Surgical resection with exhaustive control of the excision margins should be performed. Even when the tumor is small, the need for healthy margins often results in a moderate to a large palpebral defect that cannot be repaired with direct sutures. The goal of reconstruction is to achieve a mobile eyelid, good corneal protection, and a good aesthetic result with acceptable donor site sequelae. In this manuscript, we describe a case of basal cell carcinoma of the medial canthus that underwent resection followed by reconstruction with a glabellar flap.

KEY WORDS: carcinoma; canthus; reconstruction; glabellar flap

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INTRODUCTION

The eyelids are important structures that protect the globe and help maintain corneal hydration. The constant opening and closure movements help in lubrication and cleansing the cornea through tears and aim for their drainage. Along with aesthetic harm, minor eyelid malfunction can impair vision and potentially result in blindness from corneal desiccation. After tumor surgery, achieving excellent eyelid repair remains challenging [1, 2].

A palpebral defect may follow the excision of eyelid skin carcinoma. Such deformities can be repaired using various techniques, but each patient's reconstructive strategy is unique. Reconstruction aims to achieve a mobile eyelid, good corneal protection, and a good aesthetic result with acceptable

donor site sequelae [3]. The purpose of this article is to present a glabellar flap reconstruction procedure in a patient with basal cell carcinoma of the eyelid

CASE PRESENTATION

A 62-year-old patient presented to the hospital with an eyelid lesion that had been evolving for one month. The inspection found atypical whitish ulceration on the right medial canthus at the expense of the upper eyelid (Fig. 1). Pathological examination after biopsy found an infiltrative basal cell carcinoma.

Mohs micrographic surgery was recommended due to the infiltrative nature of the lesion. The operation was performed under general anesthesia in two

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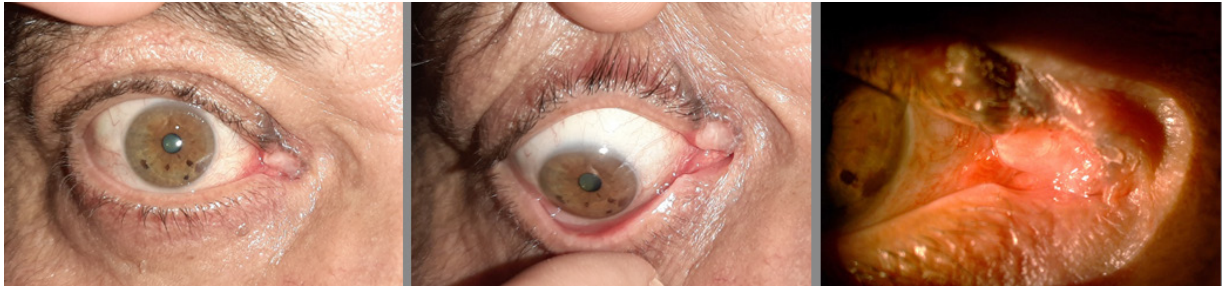


FIGURE 1. Macroscopic appearance of the lesion: atypical whitish ulceration in the right medial canthus at the expense of the upper eyelid

stages: first, a resection around the tumor, respecting the safety margins, leaving a loss of substance of about 1.5 cm in diameter involving the canthus and the nasal canopy, with the application of a temporary dressing (Fig. 2). The specimen was sent to the pathology laboratory to confirm the diag-

nosis and to examine the margins. As the margins were healthy on the final histological examination, reconstruction was performed three days later using a flap dissected at the level of the glabella in the shape of an inverted V, which gave a good functional and aesthetic result (Fig. 3).



FIGURE 2: First stage of surgery. **A.** Marking of the area to be resected; **B.** Resection of the tumor leaving a loss of substance of approximately 2 cm in diameter; **C.** Placement of a temporary dressing; **D.** A surgical specimen sent for histological study with threads to document orientation



FIGURE 3: Reconstruction three days later with a dissected flap at the glabella in an inverted V-shape

DISCUSSION

Basal cell carcinoma remains the most frequently diagnosed type of skin cancer. The palpebral location (including the canthus) accounts for a significant proportion of these cancers [4].

The inner canthus is the site of aggressive basal cell carcinomas. Surgical treatment with an exhaustive control of the excision margins (Mohs surgery) should be preferred [5]. Even when the tumor is small, the need for healthy margins often results in areas of palpebral defect that cannot be repaired with direct sutures. Eyelid reconstruction is one of the most challenging aspects of reconstructive plastic surgery. There may be no other part of the body that exhibits such a delicate balance of anatomy, function, and aesthetics [6]. After the tumor excision, if an extemporaneous pathological examination is carried out, reconstruction can be performed at the same time. If not, it is preferable to postpone it for a few days to wait for the anatomopathological result and to ensure that the margins of the excision are healthy.

Full-thickness skin grafts may be helpful in situations with superficial abnormalities, but they usually result in cicatricial ectropion/entropion, which calls for surgical correction. Additionally, they are ineffective in treating full-thickness defects when a tumor is removed [7, 8]. Forehead flaps are classically used in reconstruction when the loss of substance cannot be closed by direct suture or local autoplasty. Several forehead flap techniques have been described. The V-Y glabellar flap is the reconstruction technique of choice for tumors infiltrating the medial canthus. It starts with an inverted “V” in the center of the forehead, which begins from the loss of substance, goes up the glabella, describes

an inverted V, and then descends to the root of the eyebrow opposite the loss of substance. The flap’s size must be chosen in order to allow a tension-free coverage of the defect. The flap is then dissected from the subcutaneous fat tissue and turned over to cover the defect. The pivot point of the flap is, therefore, the bridge of the nose. The flap is then sutured with absorbable subcutaneous and non-absorbable skin stitches [9]. The donor area is then closed by a direct suture.

The medial canthus is the preferred area for about 20% of malignant palpebral tumors. It is a high-risk area because of the adjacent lacrimal structures, i.e., the nasolacrimal duct, the puncta, and the canaliculi [10]. In some cases, surgical excision with perfect margin control necessitates the sacrifice of these tissues. Even if the scalpel does not directly pierce them for oncological reasons, the postsurgical stenosis may nevertheless interfere with the tear drainage system, causing intermittent or persistent tearing and acute or chronic dacryocystitis [6, 10]. After surgically removing tumors, the lacrimal system’s defects may be visualized. Anomalies can occur in the canaliculus, punctum, or the entire proximal lacrimal system up to the sac. A monocanalicular stent can be inserted in each defect if there is a problem with both the upper and lower systems. In our case, since the lower lacrimal system was respected, stenting was not necessary.

CONCLUSION

The management of basal cell carcinomas, a frequent pathology in the palpebral region, requires knowledge of the basic principles of reconstruction in reconstructive surgery, especially in the case of in-

filtrating basal cell carcinomas, which require larger safety margins, thus leading to more significant loss of substance.

Conflict of interest

The Authors declare that they have no conflict of interest.

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