



DOUBLE V-Y FLAP IN EYEBROW AFTER WIDE EXCISION IN MELANOMA

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ABSTRACT

Melanoma is a malignant tumor with a high metastatic capacity, hence the importance of early diagnosis. Suspected melanoma lesions must be excised at 2 stages. First, a biopsy is performed to obtain histological confirmation by a punch or a narrow margin excisional biopsy, such as an elliptical incision or double M-plasty technique. Then, a re-excision with wider surgical margins, depending on the Breslow thickness, is done. We present a 33 year old woman with an atypical pigmented lesion at her right eyebrow. A narrow margin excision was performed through double M-plasty, obtaining a diagnosis of superficial extensive melanoma in vertical growth phase, Breslow 0.5 mm. After a wide excision with 1 cm margin, a reconstruction with a double V-Y advancement flap was performed with satisfactory aesthetic results and without tumor recurrence 5 years after diagnosis.

KEYWORDS : Melanoma; double M-plasty; cutaneous flaps; double VY advancement flap.**INTRODUCTION:**

Melanoma is a malignant tumor that has a high metastatic capacity, hence the importance of early diagnosis. The incidence rate has been increasing in the last decades, an average of 272 new cases of melanoma and 91 deaths due to this disease were recorded annually in Uruguay during 2014-2018^[1]. The eyebrows are part of the aesthetic unit of the forehead. Being bilateral, it is of great importance to maintain a relative symmetry in order not to affect facial harmonization. Reconstructing a surgical defect in this anatomical area is a great challenge.

Clinical case: a 33-year-old female patient, phototype II, with family history of melanoma, consulted the clinic for an atypical pigmented lesion of 8 mm in diameter, asymmetric, with central globules and an area showing homogeneous pigment under dermoscopy. The lesion had evolved for 2 years and bled on certain occasions.

Clinically suspecting melanoma, and given the location in an anatomical-functional area such as the face, a punch biopsy was performed and a diagnosis of extensive superficial melanoma in vertical growth phase was made. Then, a narrow margin excision was performed through double M-plasty to obtain the complete Breslow thickness. The pathological anatomy reports a superficial extensive melanoma in vertical growth phase, Breslow 0.5 mm, Clark II, without ulceration. No mitoses were observed. Lateral margins were free. According to this result, a 1 cm margin extension and reconstruction with a double V-Y advancement flap was performed (Fig. 1).

Figure 1. (a): Melanoma located at right eyebrow. (b): Scar after excision with narrow margin by a double M-plasty technique. (c): Wide excision, note the surgical defect and the lifting of the double VY flap. (d) and (e): Approximation of both flaps and immediate postoperative period with completed flap reconstruction. (f): Outcome, control 5 years after surgery.

DISCUSSION:

When it comes to tumor lesions, certain objectives should be pursued when performing their resection, said objectives are (in decreasing order of importance) oncologic, functional, anatomic and aesthetic. Regarding the diagnosis and treatment of melanoma, it is usually performed in 2 surgical stages. During the first stage, it has to be confirmed by means of histopathology through punch biopsy or narrow margin excisional biopsy, where the double M-plasty technique is very useful for preserving healthy tissue and achieving greater precision with respect to the location of the primary tumor^[2]. During the second stage, a wide excision is made, according to the Breslow thickness obtained. Reconstruction can be performed in different ways, either by simple closure, by secondary intention, flaps or grafts.

The eyebrows play a fundamental role in facial expression and mimicry. Since this is a hairy area with its own characteristics, we must bear in mind that when reconstructing surgical defects, the donor tissue must maintain the characteristics of this area, with the same color, thickness and capillary growth^[3]. Working in this anatomical area poses a great challenge, so several algorithms have been devised to simplify the decision-making process^[3,4]. Most are based on the size of the surgical defect relative to the overall size of the brow and the position within the brow. The VY flap is usually indicated when the defect occupies half or less than half of the entire brow and it is most useful for repairing small to medium-sized defects. Some authors suggest that the VY subcutaneous pedicle flap with random vascularization be used to reconstruct surgical defects that do not exceed 2.5 cm^[3]. In order to perform this flap, a triangular flap is created, based on one of the edges of the defect, which is free on the sides and attached to the subcutaneous tissue by a central vascular pedicle, as if it were an island. This is then advanced towards the defect, which gives rise to a V-shaped



secondary defect that closes in a linear Y-shape. The narrower the pedicle, the more mobile the flap will be. However, it must be taken into account that the flap may also not survive. Therefore, the displacement of the flap depends on its subcutaneous pedicle. As an advantage, the highlight is good vascularization, since it has a central pedicle, which irrigates the edges uniformly. As disadvantages, necrosis of the flap can occur or the trapdoor effect can be seen, which can be avoided by making a flap slightly smaller than the defect^[5]. There are several variants of the flap, among which we find the double or bilateral VY flap performed in our patient. It is used for large surgical defects, in which a single V-Y flap could not be sufficiently mobilized in order to cover it^[6]. In these cases two opposing triangles are made, based on the defect, which when advancing, will meet in the middle. The base of both has to match in size^[6]. It is important to remember that there exist non-surgical camouflage methods that can be indicated postoperatively so as to correct any possible asymmetries.

CONCLUSION:

We bring about this clinical case in order to report a successful reconstruction with a double V-Y advancement flap in the eyebrow, obtaining satisfactory aesthetic results and without tumor recurrence 5 years after diagnosis.

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