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Squamous Cell Carcinoma: Excision and Reconstruction with the H-Shaped Flap: About a Case in an Albino

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Abstract | **Case Report**

Squamous cell carcinomas are favored by repeated sun exposure, especially in fair-skinned people who easily get sunburned. There are also genetic diseases including albinism which can promote their appearance early in life and multiple forms. We report the first observation of frontal squamous cell carcinoma with resection and reconstruction using the H-shaped flap in an albino (in Mali). Oculo -cutaneous albinism consulted for a frontal ulceration evolving for 3 years. The initial lesion was an erythematous macula which progressively evolved into a dragging ulceration. She had been treated with three sessions of cryotherapy (liquid nitrogen) without success. Physical examination found a slightly crusty ulceration, circumscribed (2 x 1.6 cm), painful and non-itchy. Otherwise the rest of the clinical examination was normal. A biopsy for pathological examination was performed. The diagnosis of invasive squamous cell carcinoma was confirmed. Surgical treatment was performed (resection and reconstruction with the H-shaped flap) with simple postoperative course and satisfactory results from an aesthetic point of view.

Keywords: Squamous cell carcinoma, frontal, H flap, albinos, Bamako, Mali.

INTRODUCTION

Squamous cell carcinomas are favored by repeated sun exposure, especially in fair-skinned people who easily get sunburn. There are also genetic diseases including albinism which can promote their appearance early in life and multiple forms [1].

In Mali, the incidence is underestimated due to significant under-reporting.

In our countries, faced with the occurrence of these cancers, there is the problem of management, especially surgery, which must take into account the aesthetic aspects (least harmful repair for the patient) and the margins of oncological excision (minimization of the risks of recidivism).

We report the first observation of frontal squamous cell carcinoma with resection and reconstruction using the H-shaped flap in an albino.

Comment: This is a 39-year-old Malian woman with oculo -cutaneous albinism consulted for a frontal ulceration that had been evolving for 3 years. The initial lesion was an erythematous macula that gradually evolved into a dragging ulcer (Figure 1). She had been treated with three sessions of cryotherapy (liquid nitrogen) without success.

There was no notion of trauma and the notion of adequate sun protection was not found in her. The personal medical and surgical history was unremarkable.

Physical examination found a slightly crusty ulceration, circumscribed (2 x 1.6 cm), painful and non-itchy.

Examination of the axillary and cervical hollows was normal. Otherwise the rest of the clinical examination was normal. The diagnosis of squamous cell carcinoma was suggested and a biopsy for pathological examination was performed. The diagnosis of invasive squamous cell carcinoma was confirmed. Surgical treatment was performed (resection and reconstruction with the H-shaped flap) (Figure 2, 3, 4)

with simple postoperative course (Figure 5) and satisfactory results from an aesthetic point of view.

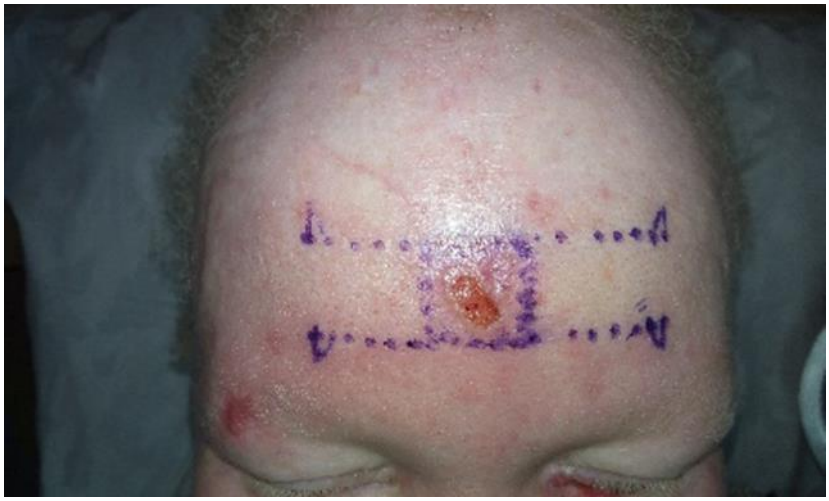

Figure 1: Outline of the advancement flap

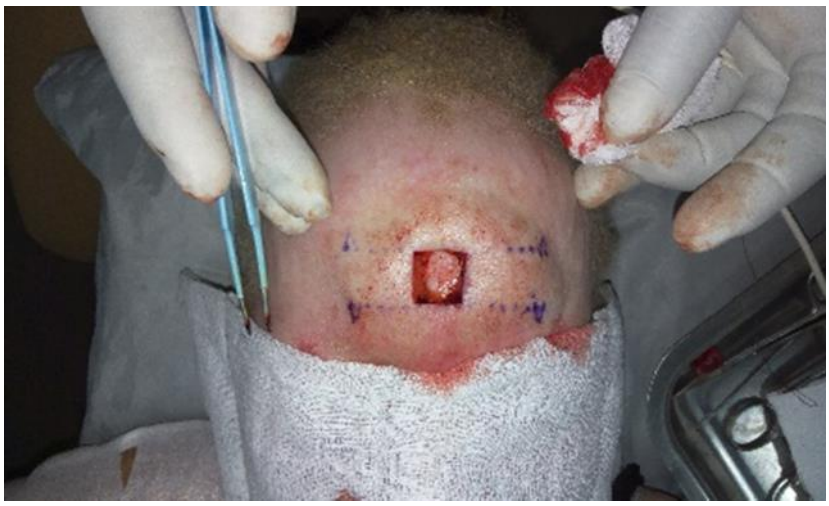

Figure 2: **Resection of the tumor lesion in H with BURROW's triangles**

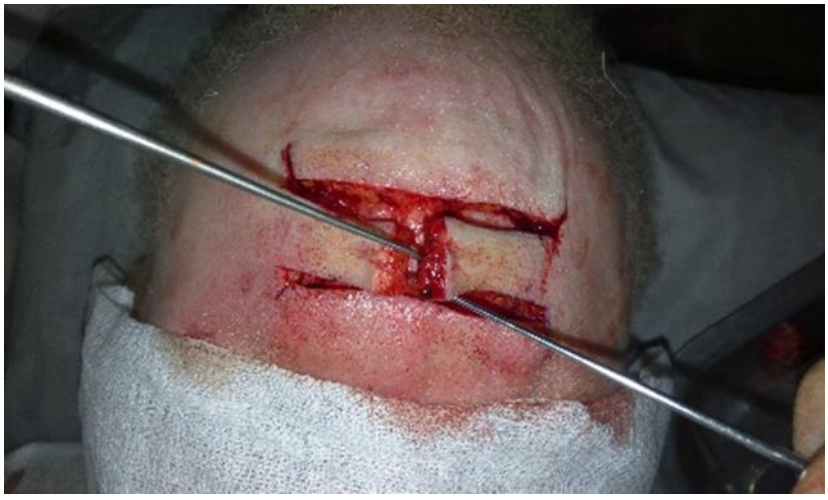

Figure 3: Flap lift with intraoperative traction test

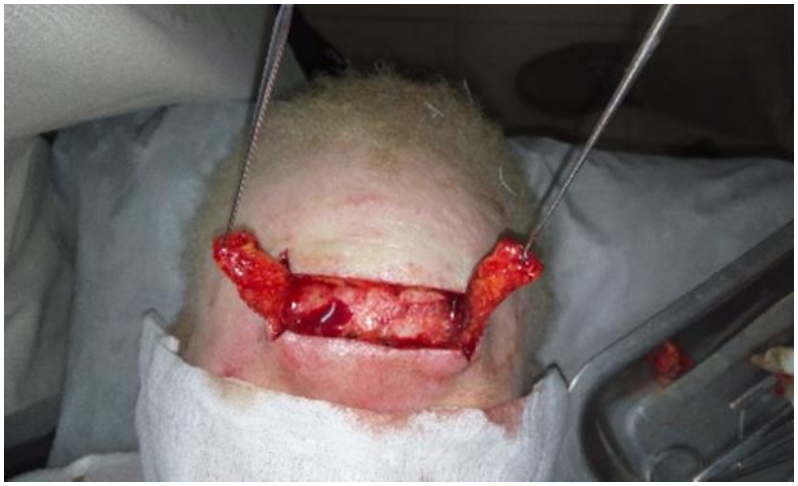

Figure 4: Flap lift intraoperatively

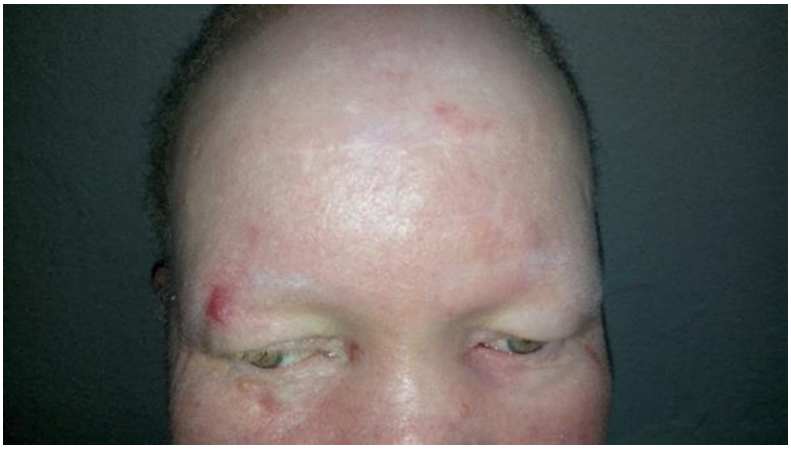

Figure 5: Postoperative result at 3 months

DISCUSSION

To our knowledge, this is the first observation of resection with reconstruction using the H-shaped flap of a frontal carcinoma in an albino (in Mali).

The most suitable reconstruction for our case was the H-flap. The possible alternatives to the H-flap at the level of the frontal aesthetic subunit are diverse, in particular:

The AT flap is indicated for triangular loss of substance and also that close to the anterior edge of the scalp and around the eyebrow [2] while in our clinical case the loss of substance is mid-frontal with a square shape.

VY plasty is indicated for lower mid-frontal loss of substance [3] (between the eyebrows) unlike our clinical case, which is a mid-frontal loss of substance.

The rotation flap is well suited for loss of substance (PDS) ≤ 1 cm near the scalp or eyebrows, also for PDS > 1 cm or for reconstruction a double rotation flap with large detachments must be done [4]. In our patient, the PDS in addition to the measurements well above 1 cm, the presentation is medio-frontal and finally the double rotation flap will have a significant scar ransom (unsightly).

The fusiform resection for its correct application must not only be parallel to the wrinkles of the forehead but also be less than 1 cm high and 2 to 3 cm wide (measurements practically double our case). Tapered resection at the level of the frontal esthetic subunit has the disadvantage of transient modification of the implantation of hair and/or eyebrows [5].

Indications for total skin grafting are limited for the frontal aesthetic subunit with the disadvantage of the patch effect [6] which is more or less dyschromic and therefore displays. The use of this reconstruction technique would be unsightly.

Hypoesthesia and secondary dysesthesia of the forehead in normal times are unavoidable. They are generally related to the section of the sensory cutaneous nerves and are more or less transitory. No such complaint has been registered in our case. The correct integration of the scars with the forehead wrinkles was respected in our case; which implies that our repair was done in accordance with Langer's lines and that the scar ransom is the most acceptable.

CONCLUSION

The frontal aesthetic subunit lends itself to several reconstruction possibilities. In our clinical case, the aesthetic results are quite satisfactory but depend on the judicious choice of flaps. The vascular-nervous risks are not insignificant but the mastery of the anatomy, combined with a good surgical technique makes it possible to reduce these risks. The scar ransom must be as light as possible.

Knowledge in dermatology of the practice of the various flaps discussed could be an appropriate solution in the management of (non-metastatic) skin carcinomas in our countries.

BIBLIOGRAPHIC REFERENCES

1. Kouby, F., Chanal, J., Jafari, A., Ermisch, C., Farhi, D., Aractingi, S., & Avril, M. F. (2020, February). Rieger-Marchac flaps: Complications and patient satisfaction. In *Annales de Dermatologie et de Venereologie* (Vol. 147, No. 4, pp. 265-270). Elsevier Masson.
2. Marco, O., Boccara, D., Mimoun, M., Luini, J., & Chaouat, M. (2015). The T- plasty for the reconstruction of loss of cutaneous substances of the forehead. *Annals of aesthetic plastic surgery*, 60(3), 208-213.
3. Lebas, D., Modiano, P., & Wiart, T. (2015). Jugal advancement-rotation flap for loss of lateronasal and mid -paranasal substance. *Ann Dermatol Venereol*, 142(5), 313-319.
4. Luigi, L., Alberto, B., Diletta, M. P., Davide, S., Roberto, C., & Marco, M. (2020). Reconstruction of the Nose: Management of Nasal Cutaneous Defects According to Aesthetic Subunit and Defect Size. *Medicine*, 56, 639.
5. Ali, A., Jed, B., Mouhamed, A. A., Mahdi, B. A., Amani, L., Mouna, H., Karima, Z., Imen, M., & Issam, Z. (2008). Role of early surgical treatment in periorificial hemangiomas of the face. *Annals of Aesthetic Plastic Surgery , 53*(5), 435-440.
6. Revol, M., & Servant, J. M. (2010). Skin grafts. EMC *(Elsevier Masson SAS*, Paris), Surgical techniques-Reconstructive and aesthetic plastic surgery. 45-070.