

# Labio-Jugal Squamous Cell Carcinoma on HIV Site: Surgical Excision and Reconstruction with a Musculocutaneous Flap of the Pectoralis Major: A Case Report

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## Abstract

**Introduction:** Malignant skin tumors are very frequent lesions, induced by sustained sun exposure. Cutaneous squamous cell carcinoma is a dangerous cancer of the skin. It's more frequent in white people than black people. Squamous cell carcinomas sometimes pose a real problem of local reconstruction after their removal. Reconstructions may involve the production of regional pedunculated flaps to repair the loss of substance. We report the case of a labio-jugal squamous cell carcinoma in an HIV-positive patient. The excision of the tumor required repair by a musculocutaneous flap of the pectoralis major. The aim of this paper is to show the dangerousness of that cancer, the particularity of its location around the mouth. We also want to call for a reflection about the recurrence of that disease on HIV infection ground, despite correct resection. **Clinical Case:** This was a 47-year-old HIV-positive patient on antiretroviral therapy (ARVs), treated 23 years ago for pulmonary tuberculosis. He presented with an ulcerated lower lip wound extending to the right labial commissure, right cheek, and the right lateral third of the upper lip. This lesion had progressed for about 6 months without a tendency to spontaneous healing. There was no palpable lymphadenopathy, especially in the cervicofacial region. The biopsy of the lower labial lesion concluded that it was a differentiated, mature, infiltrating squamous cell carcinoma. The craniofacial

CT scan did not note any regional tumor invasion. We indicated tumor excision, functional lymph node dissection, and reconstruction by a flap of the pectoralis major muscle. The operative procedure was performed under general anesthesia. The edge cuts after carcinoma removal were healthy. Three months later, the patient is seen again with a local right submandibular recurrence. Radiotherapy was offered to him. **Discussion:** Squamous cell carcinomas are frequent in sub-Saharan Africa with preferential localization to oropharynx and oral cavity. More and more viral infections such as HIV, HBV and HCV are implicated in the occurrence of squamous cell carcinomas of the ENT and neck and facial sphere. HIV appears to be a contributing factor in young populations. Multidisciplinary management with anti-infective treatment coupled with new therapies could reduce the risk of recurrence and metastases.

### Keywords

Squamous Cell Carcinoma, Labio-Jugal, Pectoralis Major Flap, HIV Site

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## 1. Introduction

Malignant skin tumors are very common, favored by sustained sun exposure. Cutaneous squamous cell carcinoma is a dangerous cancer of the skin. It's more frequent in white people than black people. Melanin, the pigment responsible for skin color, is protective against carcinogenic ultraviolet radiation [1]. Cutaneous squamous cell carcinomas pose a real problem of local reconstruction after their large excision. While alcohol and tobacco are the main contributing factors for squamous cell carcinoma of the ENT sphere, infection with Human Papilloma Virus (HPV) has been implicated as another contributing factor [2]. The increasing incidence of oral-genital infection in a new population of younger patients sometimes not exposed to tobacco or alcohol, but infected with the Human Immunodeficiency Virus (HIV) has been highlighted. Squamous cell carcinoma is a dangerous cancer of the skin [3]. The aim of this paper is to show the dangerousness of that cancer, the particularity of its location around the mouth and the necessity of repairing of the large loss of substance after resection by the musculocutaneous flap of the pectoralis major. We also want to call for a reflection about the recurrence of that affection on HIV infection ground, despite correct resection.

## 2. Clinical Case

We report a case of a dragging right labio-jugal ulcer-bud wound, evolving for 6 months in a 47-year-old patient. This HIV positive patient is on antiretroviral therapy (ARV) and was treated 23 years ago for pulmonary tuberculosis. The history of the disease recalls an episodic appearance of skin lesions of the lower lip which healed spontaneously. For the past six months, a progressive extension

has appeared to the right labial commissure, right cheek and right lateral third of the upper lip without any tendency for spontaneous healing.

During the consultation in the stomatology department, the facial clinical examination revealed an ulcerated wound and budding, taking the entire lower lip, the right labial commissure and the right lateral third of the upper lip.

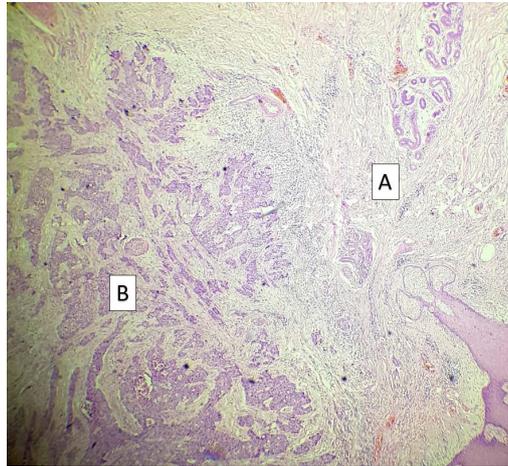
This wound had a dirty bottom and perilesional induration (**Figure 1**). There was not any palpable lymphadenopathy and trismus. The endo-oral examination found a macroscopically uninjured labial vestibule. The biopsy of the lower labial lesion revealed a differentiated, mature and infiltrating squamous cell carcinoma (**Figure 2**). The craniofacial CT scan showed an absence of regional tumor invasion allowing the tumor to be classified as T3N0M0. The indication of tumor excision with functional lymph node dissection was made. The patient was classified ASA 3. Under general anesthesia with nasotracheal intubation, we performed tumor resection with margins of 10 millimeters and lymph node dissection of areas I, II, III following the Sébileau-Carré type incision (**Figure 3**). On exploration, lymphadenopathy was found in sectors Ib and Ia. The cuts of the banks after surgery were healthy. The reconstruction was done by a musculocutaneous flap of the pectoralis major muscle. The flap was cut on a pattern reproducing the loss of substance (**Figure 4(A)**) and was sutured at the recipient site in three planes. The donor site was closed by direct suture on a suction Redon (**Figure 4(B)** and **Figure 4(C)**). A nasogastric feeding tube was placed for a



**Figure 1.** Right labio-jugal ulcerative bud tumor.



**Figure 2.** Excision with a margin of 10 mm and lymph node dissection.



**Figure 3.** Histological appearance of invasive squamous cell carcinoma: Note normal skin tissue (A) infiltrated by moderately to poorly differentiated squamous cell carcinoma (B) (HE; x4).



(A)



(B)



(C)

**Figure 4.** (A) Reconstruction with the musculocutaneous flap of the pectoralis major muscle: flap removal; (B) and (C) Reconstruction with the musculocutaneous flap of the pectoralis major muscle: flap placement and closure.

period of 21 days to ensure high-calorie and high-protein enteral nutrition. The patient was treated by antibiotics, anti inflammatories, and drugs against pain. The mouth cleaning was made with Polyvidone iodine, we locked carefully after flap vitality The postoperative consequences were marked by a local right sub-mandibular recurrence 3 months later. Complementary radiotherapy was offered to the patient, but the patient had to move to another country, because of lack of that treatment in our health care center.

### 3. Discussion

Squamous cell carcinomas are frequent in sub-Saharan Africa with preferential localization at the oropharyngeal and oral level in 90% of cases [4]. Invasive squamous cell carcinoma represented 20% of skin cancer in people with albinism in Togo [5]. More and more viral infections such as HIV, HBV and HCV are implicated in the occurrence of squamous cell carcinomas of the ENT and cervicofacial sphere [6] [7]. HIV appears to be a contributing factor in young populations according to FMA Butt *et al.* [8]. The coexistence of HPV infection, although not always constant, exists in these patients and may have a role in the malignant degeneration of these tumors [9]. These lesions often pose a problem of therapeutic management. Among other things, international recommendations have been proposed [10] as well as neoadjuvant chemotherapy [11] and a genomic approach [12]. One of the problems with this care is often surgery. In our patient, we performed a resection respecting a safety margin according to standards [13] with a functional lymph node dissection [14]. Despite therapeutic advances, surgical resection and reconstruction at the same time of surgery, about squamous cell carcinomas and oropharyngeal and facial cancers in general remains a subject of debate [15] [16]. Functional sequelae are not uncommon [17]. Behavioral preventive measures have been mentioned [18]. HPV vaccination in people at risk could also have a protective role [19]. This multidisciplinary management consisting of anti-infective treatment coupled with new therapies [20] could reduce the risk of recurrence and metastases. Moreover, this case seems unique to us due to the unexpected recurrence in this HIV positive field. One of the limitations of this paper is that the patient moved away from the hospital to complete his treatment by X-Ray-therapy in another country, and did not return back to us for the rest of the treatment and postoperative check.

### 4. Conclusion

This clinical case shows the recurrent problem of complete management of malignant tumors. The availability of an extemporaneous histological examination of the cross-sections of the margins during tumor surgery could contribute to better management of these lesions and reduce the risk of recurrence.

### Informed Consent

We obtained consent from the patient and his parents to publish this case.

## Conflicts of Interest

We have no conflicts of interest about this study, and we have been approved by the ethical committee commission of the hospital before beginning this study.

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