

Squamous Cell Carcinoma of the Conjunctiva and HIV/AIDS Infection

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Abstract

Squamous cell carcinoma of the conjunctiva (SCC) is a rare malignant tumour, usually encountered in white populations. Exposure to ultra-violet rays and old age are the main risk factors. In sub-Saharan Africa, HIV also became a high risk factor for SCC. We present two case-reports of SCC in known HIV adult patients.

Keywords: Squamous Cell Carcinoma; Conjunctiva; HIV; Douala; Cameroon

Introduction

Squamous cell carcinoma of the conjunctiva (SCC) is a rare differentiated squamous cell tumour. Its prevalence is about 2 cases per 100 000 inhabitants in West European countries. In the Caucasian, the main risk factors are exposure to ultraviolet rays, and old age [1]. In Africa, HIV/AIDS-related immunosuppression became a high risk factor for SCC [2,3]. This malignant tumour sometimes can be the first clinical manifestation of the AIDS disease, or appears in patients under anti retroviral drugs developing resistance to treatment [2,4]. We report two cases of SCC in HIV1 immuno-compromised patients seen at the Laquintinie Hospital of Douala, Cameroon in 2016.

Cases Reports

Case 1

A 42 years-old HIV1 immuno-compromised lady, under anti retroviral therapy (ARVs) for 15 years, presented with a conjunctival mass of the right eye, evolving for 4 years. Her CD4 count was 160 cells / mm³ and medical past history revealed squamous cell carcinoma of the vulva treated 4 years earlier. The right eye presented no light perception, a big, pink, budding conjunctival mass, which infiltrated and disorganized the eye (Figure 1). The left eye was normal. The patient had no regional lymph node enlargements. The general clinical examination, as well as cerebral MRI were normal. A biopsy of the mass was done and its histology revealed a moderate differentiated squamous cells carcinoma (Figure 2). The tumour was classified as T3N0M0. An exenteration was performed and the patient was referred to the oncology department where general chemotherapy was performed, and her anti retroviral regimen readjusted.



Figure 1: Squamous cell carcinoma of the conjunctiva involving lids and the eyeball.

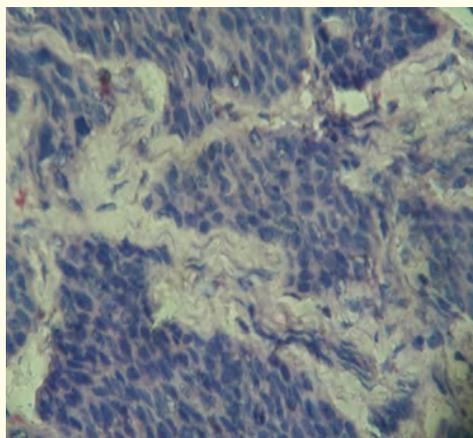


Figure 2: Histology of the squamous cell carcinoma of the first case.

Case 2

A 56 years old male patient HIV1 infection, and under anti-retroviral therapy for 3 years, was seen for a conjunctival mass of the right eye evolving for 18 months. His CD4 count was 94 cells / mm³. The right eye had a distant visual acuity without correction of 3/10; a pink conjunctival mass in upper nasal side, budding in form, hyper vascularized, encroaching on the cornea and the sclera in the area of the lids fissure (Figure 3). The patient had a right pre auricular lymph node enlargement (Figure 4). The left eye was normal. A cerebral CT scan performed showed an upper right eyelid infiltration (Figure 3) with no other regional extension. Histology of the mass after its excision revealed an invasive SCC (Figure 5). The tumour was classified as T3N1M0. The patient was put on general chemotherapy as well as 5-FU 1% topical chemotherapy. His anti retroviral regimen was readjusted in the oncology department. The patient died eight months later.



Figure 3: Squamous cell carcinoma in the nasal part of the conjunctiva in the area of the lids fissure (second case report).



Figure 4: Pre auricular lymph node (second case report).

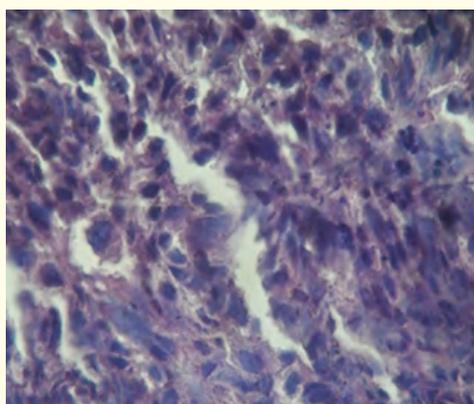


Figure 5: Histology of the second case report of squamous cell carcinoma.

Literature Review

Squamous cell carcinoma of the conjunctiva (SCC) particularly affects the elderly Caucasian people [5]; explained by cumulative exposure to UV rays over a prolonged period of time compared to their younger counterparts. However, young people presenting with xeroderma pigmentosum do develop SCC [6]. Since the advent of HIV infection, the epidemiology of cancer has changed significantly. Indeed, the SCC of the conjunctiva is one of the multiple opportunistic diseases in HIV/AIDS patients. It is the third cancer after Kaposi's sarcoma and lymphoid tumours in the HIV/AIDS patients [7]. It can be the first clinical feature of HIV infection [4]. It is well established that, in the HIV immuno-suppression, the SCC is more aggressive, with faster growth and local spread [8]. It is therefore recommended to systematically request HIV serology if there is suspicion of a SCC of the conjunctiva even if the patient is in good physical health [2,3,9]. The relationship between the depth of immuno-suppression (CD4 count) the occurrence of SCC has not been established. However, it has been established that the onset of SCC in a patient under ARVs is due to therapeutic failure [2]. The role of human papillomavirus (HPV) serotype 16 is controversial, as it is also found in the persons with normal conjunctiva [10]; however, it is a known risk factor of SCC [1].

The large size of the tumours in these two observations is a sign of a long evolution and a late diagnosis. This situation is common in Africa. A study in Cote d'Ivoire reported an average diagnostic delay of more than one year [3]. Diagnostic delay is attributed to many factors such as lack of specialized eye-care centres in rural areas; the absence of social security, low purchasing power of the patient. Another reason for diagnostic delay in sub-Saharan Africa is cultural, marked by misconceptions and misbeliefs. For these reasons, patients tend to seek help from traditional healers in the first instance as described by Berete, *et al.* [3]; and modern medicine as the last resort.

The SCC in its first stages is most often located at the level of the bulbar nasal conjunctiva in the lids fissure. It may in some cases be mistaken for a pterygium [4,9]. Three anatomopathological forms are known; dysplasia which is a pre-cancerous condition, carcinoma in situ, and invasive carcinoma [9].

In non-infiltrating forms, surgical excision with healthy margins is the basic treatment; combined with 5-FU 1%; or Mitomycin C 0.02% to 0.04% topical chemotherapy to reduce risk of recurrence. In advanced infiltrated forms, epikerato-sclerectomy, enucleation or exenteration are recommended. The use of topical interferon alpha 2b, external contact radiotherapy have not proven their efficacy; nevertheless, brachytherapy in addition to incomplete surgical treatment could be of great benefit [3,9,11].

The prognosis is generally good if the excision of the tumour is complete. The recurrence rate varies from 5 to 56%, depending on the presence or not of the neoplastic cells at the conjunctiva margins [12-14]. The recurrence time is varied as shown by Erie [12] and Tabin [13], ranging from 33 days to 68 months after treatment of the primary tumour. The mortality rate relatively high, ranging from 5 to 13% depending on the series and duration of cohort observation [14,15].

Conclusion

The SCC of the conjunctiva is an opportunistic condition in the course of HIV/AIDS in young people in sub Saharan Africa. Cancer search should be part of the systematic examination of any HIV Patient. The diagnosis of the SCC should be also suspected in the case of abnormal aggressive recurrence of a pterygium.

Conflicts of Interest: None.

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