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CONJUNCTIVAL CANCERS IN HIV PATIENTS AT THE UNIVERSITY HOSPITAL OF BRAZZAVILLE

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ABSTRACT

Background: Conjunctival cancers are masses raised or flat, located in or directly under the conjunctival mucous membrane covering the anterior sclera, tarsus and conjunctival dead-end. These tumours usually occur in the elderly or in cases of HIV/AIDS.

Objective: To list the different types of conjunctival cancer in cases of HIV/AIDS at the University Hospital of Brazzaville.

Design: It was a descriptive and transversal study, conducted between January 2008 and December 2012.

Setting: The University Hospital of Brazzaville.

Subjects: HIV patients under anti-retroviral treatment or not seen for conjunctival cancer histologically proven were selected.

Results: Twenty-eight patients (28) were selected including a woman at 30 weeks of gestation. Two types of cancers were diagnosed, Carcinoma *in situ* (28.57%) and Squamous Cell Carcinoma (71.43%), no secondary tumour. There were anti-retroviral treatment failure in 89.29% of the cases.

Conclusion: Squamous Cell Carcinoma was the most common conjunctival cancer. Better compliance of anti-retroviral treatment can reduce the prevalence of these tumours.

INTRODUCTION

Conjunctival cancers are masses raised or flat, located in or directly under the conjunctival mucous membrane covering the anterior sclera, tarsus and conjunctival dead-end. The presence of feeder vessels or foreign body sensation has no relation with the histological type (1, 2). The malignancy of the conjunctiva is dominated by three tumours: Carcinoma *In Situ* (CIS), Squamous Cell Carcinoma (SCC) and Melanoma (1, 3). These tumours usually occur in the elderly. HIV/AIDS Context also is conducive to the development of cancers (4). This survey was conducted in order to list the different types of conjunctival cancer at the University Hospital of Brazzaville (UHB) in case of HIV/AIDS.

MATERIALS AND METHODS

It was a descriptive and transversal study conducted at UHB between January 2008 and December 2012. HIV patients on anti-retroviral treatment or not seen for conjunctival cancer histologically proven were selected. Based on a survey form, each patient had been seen three times, at admission, during surgical excision and the announcement of the histological results. The HIV serology of all patients was made in the same laboratory, the National Blood Transfusion Center of Brazzaville. Each surgical specimen was put into a vial containing formalin before being sent to the pathology laboratory. All biopsy specimens were examined by the same pathologist.

RESULTS

A sample of 28 patients had been selected. The average age was 38 years (25 years - 70 years). The sex ratio Male/Female was 1.

Table 1 shows the types of cancers observed. There were 18 cases of CIS and 10 cases of SCC (Male: 10 cases of CIS and 4 cases of SCC, Female: Eight cases of CIS and six cases of SCC). Seventeen cases of CIS had a typical aspect, namely an almost flat and translucent lesion finely vascularized that sits at the limbus and partly invaded the cornea. The 18th case of CIS was particular by its fleshy appearance and especially the existence of a large feeder vessel (Figure 1).

Table 1

Types of conjunctival cancer in HIV patients, between January 2008 and December 2012, at the University Hospital of Brazzaville

Type of Cancer	Effective	Frequency%
CIS	8	28.57
SCC	20	71.43
Total	28	100

CIS: Carcinoma In Situ
SCC: Squamous Cell Carcinoma



A 33 years old woman at 30 weeks of gestation and already taking anti-retroviral drugs had sent to us for a conjunctival lesion which proved to be a SCC. This patient had an atypical clinical form of SCC. The tumour was whitish, voluminous occupying the entire cornea and filling the conjunctival dead-end (Figure 2).



Table 2 shows the distribution by age of both types of cancers observed.

Table 2

Distribution by age of the two types of conjunctival cancer in HIV patients, between January 2008 and December 2012, at the University Hospital of Brazzaville

Age (years)	(CIS) Ef.	Fr. %	(SCC) Ef.	Fr. %	(CIS+SCC) Ef.	Fr. %
[25 - 35]	8	44.44	5	50	13	46.43
[35 - 45]	7	38.89	3	30	10	35.71
[45 - 55]	3	16.67	1	10	4	14.28
[55 - 65]	0	0.00	0	0.00	0	0.00
[65 - 75]	0	0.00	1	10	1	3.58
Total		18	100	28	100	

CIS: Carcinoma In Situ
SCC: Squamous Cell Carcinoma
Ef. = Effective
Fr. = Frequency

There was a treatment failure in 89.29% of cases for several reasons among others the lack of medicines and the use of expired ones.

DISCUSSION

The age of onset of CIS and SCC is relatively young compared to the literature (2, 5). The HIV/AIDS infection is probably the cause of this apparent difference. Indeed, it is accepted that the immunosuppression resulting from HIV/AIDS promotes in young patient the development of tumours usually diagnosed after the age of 60 (4).

It is quite difficult for us to draw conclusions given the small size of our sample. However we can see that there were so men than women. The prevalence of CIS and SCC would not depend on sex, contradicting some authors. Chebbi (2) and Ramberg (5) studies noted a male predominance in the occurrence of CIS and SCC. Both authors conducted their studies on elderly people, average age above 60 years, and not infected with HIV. The methodology used in these studies may explain this difference.

The SCC was the first type of cancer of conjunctiva in HIV patients followed by the CIS. These results are similar to those in the literature (1-3, 5-7). The existence of a large feeder vessel in a case of CIS probably heralds the beginning of the lamina propria invasion process. We did not find any cases of melanoma. It is recognised that melanoma is a rare tumour among black populations (8, 9). Some rare cases of secondary cancers of the conjunctiva have been reported (10). We did not find any.

Nearly 90% of patients were in anti-retroviral treatment failure. For various reasons, they had stopped treatment or consumed expired drugs. Anti-retroviral drugs are free in some African countries and the reduction of the prevalence of HIV/AIDS infection is a reality. However this success is fragile because of certain weaknesses, namely the lack of drugs causing breaks in treatment and use of drug countered facts (11-13).

In conclusion, Squamous Cell Carcinoma and Carcinoma *In Situ* are the two main conjunctival cancers in HIV patients at the University Hospital of Brazzaville. These cancers are related to the quality of anti-retroviral therapy and should be considered as opportunistic infections. Better compliance of this

therapy can reduce the prevalence of these tumours.

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