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Kaposi Disease in Hospitalization: Reflet of Accessibility to Haart in African Countries? Case of Dermatology Department of the University Hospital of Treichville (Abidjan-Rci)

Ecra Elidjé Joseph[1*], Kourouma Sarah[2] , Sangaré Abdoulaye[1], Gbéry Ildevert Patrice[1], Kouassi Yao Isidore[3], Kassi Komenan[2], Djéha Djokouehi[1], Kouassi Alexandre[3], Djadji A Thierry Lenoir[3], Coulibaly Abidou[4], Kaloga Mamadou[1] and Ahogo Kouadio Celestin[2]

[1]*Professor, Department of Dermatology and Venereology, Teaching Hospital of Treichville, Abidjan, Cote d Ivoire*

[2]*Assistant professor, Department of Dermatology and Venerology, Teaching Hospital of Treichville, Abidjan, Cote d Ivoire*

[3]*Associate professor, Department of Dermatology and Venerology, Teaching Hospital of Treichville, Abidjan, Cote d Ivoire*

[4]*Intern, Department of Dermatology and Venerology, Teaching Hospital of Treichville, Abidjan, Cote d Ivoire*

[*]**Corresponding author:** Ecra Elidje Joseph, Professor, Department of Dermatology and Venerology, Teaching Hospital of Treichville, 15 BP4 Abidjan15, Cote d Ivoire, Tel: (225)07840978; Fax: 225 21252852; E-mail: joecra@hotmail.com

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Abstract:

Background: Several studies have showed that the prognosis and the incidence of Kaposi disease had been improved in many countries where HAART was accessible and provided. In Côte d'Ivoire, an improvement of ART accessibility has occurred since 2006, but, few studies have been conducted for measuring potential changes in the epidemiology and the prognosis of the Kaposi disease. The dermatology department of the Teaching Hospital of Treichville, as a reference center for this disease could reflect the changes of interest. This study was first aiming at describing the clinical, therapeutic and progressive aspects of Kaposi disease in HIV-positive patients admitted to the service, then measuring the impact of the improved HAART accessibility.

Material and methods: It was a retrospective, describtive and cross-sectionnal study, based on HIV-positive patients medical records from those hospitalized for Kaposi Disease from 1995 to 2010, in the dermatology department of the teaching hospital of Treichville.

Results: 96 Medical records from patients were included, which frequency was 6.4 cases/year in hospitalization. The sex-ratio was 1.97 and the mean age was 40, 2 years. The skin lesions were ulcerative and budding in 36.2% of cases; mucous lesions were found in 14.2% and visceral lesions were found in 51% of cases.83 patients were under chemotherapy (86.4%) and 32 were under HAART (33.3%). 5 were not treated for Kaposi disease. The global mortality rate was 39.6%. The frequency of hospital patients decreased from 6.4 cases /year to 1.5 cases /year by 2009.The visceral lesions were frequents (51%) from 1995 to 2009 afterward they were absents. The chemotherapy was the first choice treatment. Interferon was used in 1995 and in 1996 and was abandoned because of the high cost. 20 out of 32 patients were under HAART by 2006. From 1995 to 2008, almost half the patients were dying (40.8%), but, since 2009, no death related to Kaposi disease was observed. Though the global mortality rate was 39.6%, it was almost twice higher among patients without ART (46.9%) as compared to those under HAART (25%). The improvement of the HAART accessibility which occurred in 2006, had impacted the hospitalization frequency, the disease progressive course; clinical and treatment aspects and the mortality rate of Kaposi disease after 3 years.

Background

Kaposi disease of HIV positive patients has its clinically characterized by its visceral involvements especially the pulmonary location, that can be life-threatening. Several studies have shown that in most countries where HAART was established and accessible, the prognosis of Kaposi disease was improved and the incidence has decreased [1-3]. In Cote d Ivoire, an improvement of the HAART accessibility has taken place since 2006 translating in a decentralized management of HIV cases throughout the country. Since then, few studies have been conducted to capture potential changes in the epidemiology and the prognosis of the Kaposi disease in the country. The Department of Dermatology and Venereology of the University Hospital of Treichville, as a reference center for this disease, could reflect the answer to these questions. This study was first aiming at 1) describing the clinical, therapeutic and progressive aspects of Kaposi disease in HIV positive patients admitted to the service, then 2) measuring the impact of the improved access to HAART.

Keywords: HIV; Kaposi disease; Antiretroviral treatment

Abbreviations:

HAART: Highly Active Antiretroviral Therapy; ART: Antiretroviral Therapy; AZT: Zidovudine; DDI: Didanosine

Materials and methods

We have conducted a descriptive, cross-sectionnal study, using the medical records of HIV positive patients admitted for Kaposi disease, from 1995 to 2010 to the dermatology service of the University Hospital of Treichville, in Abidjan. This service, located in a well-

known and easily accessible hospital, represents the national reference center for severe forms of Kaposi disease.

Results

Study population

In total, 96 cases of patients with Kaposi's sarcoma were identified during the study period, meaning a hospitalization rate of 6.4cases/year. The sex ratio was 1.97 and the mean age of the patients was 40.2 years, ranging from 8 to 58 years. The age group of 30-40 years was the most affected.

Clinical aspects

The skin lesions were ulcerated and budding (Figure 1) in 36.2% of cases. Mucous lesions (Figure 2) accounted for 14.2% of cases. About half the study population (49 patients, 51%) had visceral involvement including lungs (47%), the digestive tract (47%) and the lymphatic nodes (30.6%) (Figure 3).

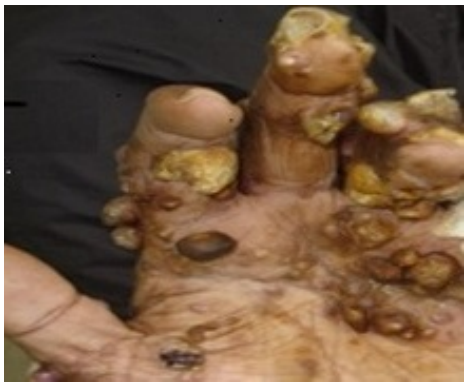

Figure 1: Ulcerative and budding lesions

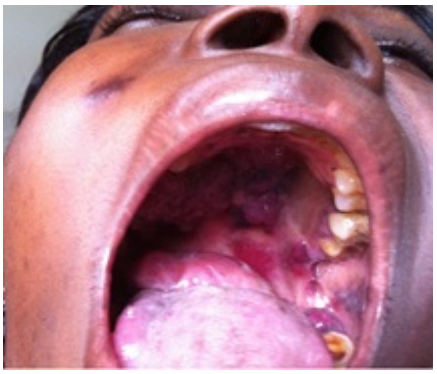

Figure 2: Mucosal lesions

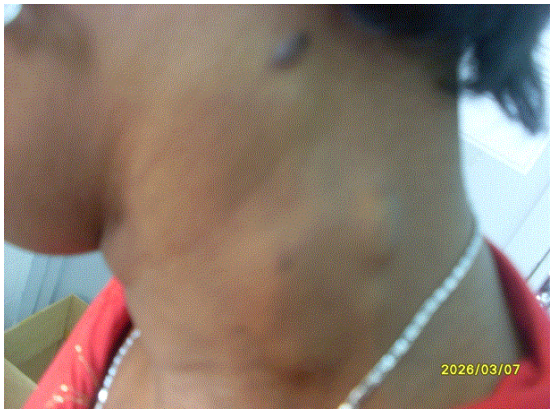

Figure 3: Ganglionnic lesions

Therapeutic aspects

In our study population, 6 patients were treated by interferon (6.2%), 83 by chemotherapy (86.4%), including 1 case of multi drug therapy and 82 cases of mono chemotherapy. 32 patients were put on HAART (33.3%), among whom 8 patients (25%) received chemotherapy alone while 24 (75%) received both antiretroviral therapy and chemotherapy, 5 patients received no treatment for Kaposi's sarcoma. Regarding the prognosis, the overall mortality was 39.6%.

Progressive aspects

In epidemiological terms, the evolution of the hospitalization rate was marked by three peaks, a first one from 1997 to 1998, a second one from 2002 to 2004 and the last one in 2008 (Figure 4). The average frequency of hospitalization was 6.4/year but decreased to 1.5 cases/year from 2009. The sex ratio was in favor of men then, but from 2002, women started being more and more infected (Figure 5).

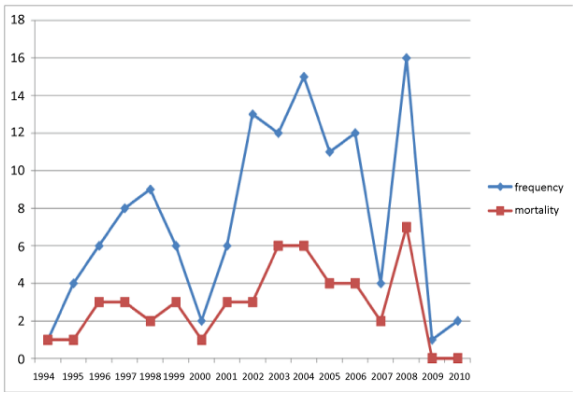

Figure 4: Hospital frequency and mortality

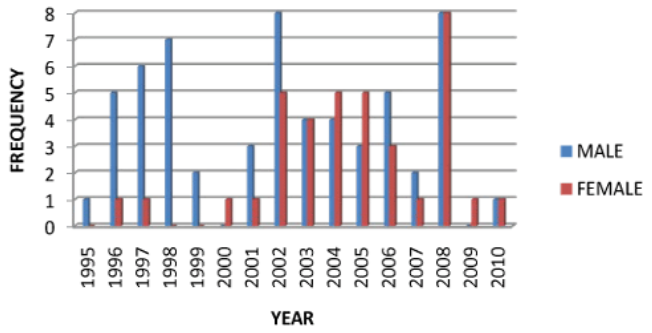

Figure 5: Evolution of sex ratio in Kaposi's sarcoma in hospitalization from 1995 to 2010

At the clinical level, from 1995 to 2009, visceral involvement was frequent (51%). However, from 2009 to 2010, none of the three hospitalized patients presented any visceral involvement. Therapeutically, chemotherapy was the first choice treatment. Interferon has been used in 1995 and 1996 and then abandoned because of the relatively high cost. The first antiretroviral therapy in the treatment of Kaposi disease has been prescribed in the service in 1996. It was a bitherapy (AZT + DDI) in a patient who experienced a fatal outcome. Tritherapy was included in the management of the disease from 1998. Out of the 32 patients who received HAART, 20(62.5%) initiated theirs from 2006, the year in which the HIV management Unit had been established in the service. Finally in terms of prognosis, from 1995 to 2008, nearly half of the patients were dying (mortality rate =40.8%).Since 2009, no death related to Kaposi disease was registered in the service (Figure 6). The overall mortality of 39.6% was by far higher in patients without HAART (46.9%) as compared to those on HAART (25%).

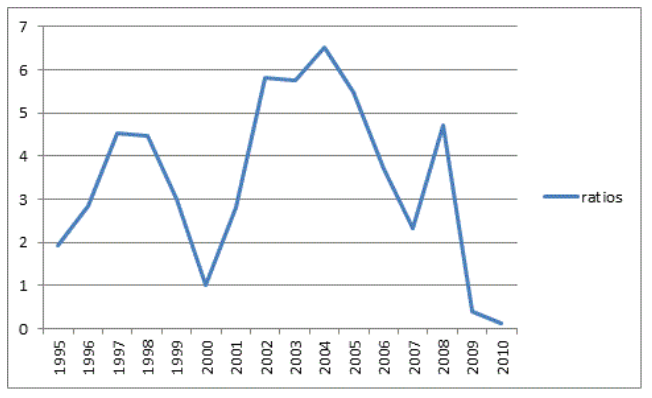

Figure 6: Yearly ratio curves

Discussion

Kaposi disease is the most common tumor associated with HIV. Prior to the introduction of HAART, the incidence was estimated at 20-30% of the patients in AIDS stage [4]. The positive predictive value for HIV infection was 87.5% in the dermatology department of the University Hospital of Treichville in Abidjan [5]. The overall average hospitalization rate was 6.4 cases per year. This frequency has evolved with three peaks corresponding to the transition periods in the fight against HIV infection. The first peak corresponds to the normal references (number of cases referred) Kaposi's sarcoma by health care providers of different health services after their academic education. The second peak corresponds to the cases referred after the creation of the first management center for people living with HIV and the third one corresponds to the cases referred after the decentralization of the HIV management centers. These references are, of course, cumulative. Indeed, post-graduate training; improve the diagnosis of diseases and their reference [6]. The decentralized management of HIV cases being usually preceded by the training of healthcare providers, we can notice an improved management of HIV infection throughout the country with earlier and earlier screening and treatment. This has resulted in a strengthened immunity and therefore a decreasing frequency of opportunistic infections, including a decreasing incidence of Kaposi's disease [1-3]. This falling incidence is accompanied by a decrease in the severe forms of the disease. We've also found such a decrease in our study, with the number of severe forms of Kaposi's disease falling from 6.2 cases/year before 2009 to 1,5 cases per year from 2009 (Figure 4). This observation matches the terms of the yearly ratios curves (Figure 6). Indeed, in developed countries, with the improved management of HIV cases, the incidence of cancers and especially Kaposi's sarcoma decreases in HIV positive people. In a study conducted in the U.S.A, researchers have shown the progressive decrease in the cumulative incidence of Kaposi's disease, from 14.3% in 1980-1989 to 6.7% from 1990 to 1995 and finally to 1.8 % from 1996 to 2006 [7]. The overall sex ratio in our study was 1.97. If at the beginning of the disease in Cote d Ivoire the sex ratio was in favor of men, since 2002, it tends to feminize in our hospitalization unit with a clear predominance of women from 2008 to 2010 (Figure 5). This trend coincides with the feminization of HIV infection in our country. As a matter of fact, in a recent study in Uganda, it has been shown not only the feminization of Kaposi disease in Africa, but also that women suffering from Kaposi disease were less responding to treatment than men [8]. This could also explain why they develop more severe forms and are more hospitalized. Regarding the average age, it corresponds to the age group affected by Kaposi disease endemic and is superimposed on the age group frequently affected by HIV. Clinically, Kaposi disease is characterized by its life threatening visceral lesions. If from 1995 to 2009, visceral involvement was present in half the hospitalized patients (51%), from 2009, meaning 3 years after the improved accessibility to HAART throughout the country, our hospitalized patients no longer had any visceral lesion. From our viewpoint, this reflects not only an early and effective management of people living with HIV but also early diagnosis and reference of Kaposi's sarcoma. In our study, the disappearance of these visceral lesions may have impacted the mortality rate associated with Kaposi disease, which is zero since 2009 (the year from which visceral involvement was no longer found in our patients). Although it still has some therapeutic indications in African people, interferon is no longer prescribed in our service because of the cost [9]. This difficulty related to the financial accessibility also limits the use of multidrug therapy indicated in life-threatening forms of the disease; hence the important use of mono chemotherapy (98.7%), the existence of 5cases without treatment and the high mortality rate (39.6%). With the improved access to HAART and the early detection, this barrier can be removed by the use of HAART as for the 8 cases in our study. Indeed a stabilization or remission of the lesions of Kaposi disease is possible with immune restoration and reduction of the viral load [4]. In addition, the accessibility to ART has improved the prognosis by decreasing the mortality rate which was twice lower among those on

HAART (25%) as compare to those without HAART (46.9%). Indeed, a better access to ARV reduces the life threatening forms of the disease and since 2009, meaning 3 years after the decentralized management of HIV; there are no more visceral involvement and even no death in our hospitalization unit.

Conclusion

The improvement of accessibility to HAART occurred in 2006 had an impact on hospitalization frequency and mortality rates of Kaposi disease from 2009 that is to say two years later. However, efforts should be made for early screening so as to prevent serious forms requiring hospitalization.

References

1. Stewart A, Chan Carusone S, Kent To, Schaefer-McDaniel N, Halman M, et al. (2012) Causes of Death in HIV Patients and the Evolution of an AIDS Hospice: 1988-2008. AIDS Res Treat 2012: 390406.
2. Pipkin S, Scheer S, Okeigwe I, Schwarcz S, Harris DH, et al. (2011) The effect of HAART and calendar period on Kaposi's sarcoma and non-Hodgkin lymphoma: results of a match between an AIDS and cancer registry. AIDS 25: 463-471.
3. Simard EP, Pfeiffer RM, Engels EA (2010) Spectrum of cancer risk late after AIDS onset in the United States. Arch Intern Med 170: 1337-1345.
4. Martinez V, Caumes E (2007) Maladie de Kaposi In Girard PM, Katlama C, Pialoux G. VIH: manifestations cliniques de l'infection à VIH et du SIDA. Paris: Doin 183-194.
5. Ecra E, Koffi J, Sangaré A, Kaloga M, Ahogo C, et al. (2009) Résultats de 2ans de conseil dépistage volontaire intégré dans un service de dermato-vénérologie (CHU de Treichville, Abidjan).Guinée Médicale 65: 66-71.
6. Ecra E, Koffi J, Sangaré A, Gbéry I, Aka B, et al. (2009) La formation et la supervision dans l'amélioration de la prise en charge des IST en Cote d Ivoire. Afrique Biomédicale 14: 64-72.
7. Simard EP, Pfeiffer RM, Engels EA (2011) Cumulative incidence of cancer among individuals with acquired immunodeficiency syndrome in the United States. Cancer 117: 1089-1096.
8. Phipps W, Ssewankambo F, Nguyen H, Saracino M, Wald A, et al. (2010) Gender differences in clinical presentation and outcomes of epidemic Kaposi sarcoma in Uganda. PLoS One 5: e13936.
9. Eolié SP, Girard PM (2009) Mémento thérapeutique du VIH/SIDA en Afrique: 2.Rueil-Malmaison:Doin.