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CASE PRESENTATION

Kaposi's sarcoma associated with HIV/AIDS

Sarcoma de Kaposi asociado al VIH/SIDA

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ABSTRACT

Introduction: Acquired immunodeficiency syndrome (AIDS) represents one of the main public health problems in the world and favors the development of treatment-resistant dermatological conditions such as opportunistic infections and malignant tumors.
Objective: to present a case of Kaposi's sarcoma in a young patient diagnosed with HIV/AIDS.
Case presentation: 32-year-old, white, male patient diagnosed with HIV infection for 8 years, with inadequate control of his disease, who attended a dermatological consultation for presenting skin lesions that had spread rapidly, in the form of raised plaques of variable size, brownish or erythematous-violaceous, with no associated subjective symptoms. The diagnosis of Kaposi's sarcoma is suspected on clinical grounds and confirmed by histopathology. The patient was treated with antiretroviral therapy and chemotherapy, a few weeks later he developed complications with upper gastrointestinal bleeding and died.
Conclusions: Adherence to antiretroviral therapy and adequate follow-up and control of the patient living with HIV/AIDS is essential to reduce the incidence of opportunistic infections and diseases that can accelerate the fatal outcome.

Keywords: HIV; Sarcoma; Kaposi.

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RESUMEN

Introducción: entre los principales problemas de salud a nivel mundial está el síndrome de inmunodeficiencia adquirida (SIDA), el cual favorecen la producción de afecciones dermatológicas resistentes al tratamiento como las infecciones oportunistas y los tumores malignos.
Objetivo: presentar un caso de sarcoma de Kaposi en un paciente joven con diagnóstico de VIH/SIDA.
Presentación del caso: paciente de 32 años, blanco, masculino con diagnóstico de infección por el VIH desde hace ocho años, con inadecuado control de su enfermedad, que acude a consulta dermatológica por presentar lesiones en la piel que se han extendido rápidamente, en forma de placas sobreelevadas de tamaño variable, amarronadas o eritematovioláceas, sin síntomas subjetivos asociados. Se sospecha el diagnóstico de Sarcoma de Kaposi por la clínica y se confirma por estudio histopatológico. El paciente se trata con terapia antirretroviral y quimioterapia, pocas semanas después se complica con un sangramiento digestivo alto y fallece.
Conclusiones: resulta esencial el cumplimiento de la terapia antirretroviral y el adecuado seguimiento y control del paciente que vive con VIH/SIDA, para reducir la incidencia de infecciones y enfermedades oportunistas que pueden acelerar el desenlace fatal.

Palabras Clave: VIH/SIDA; Sarcoma De Kaposi; Lesiones Cutáneas.

INTRODUCTION

Acquired immunodeficiency syndrome (AIDS), one of the major public health problems in the world, is caused by a retrovirus of the lentivirus genus known as human immunodeficiency virus (HIV), which depletes the T lymphocyte reserves of the affected organism. The decrease in CD4 lymphocytes, Langerhans cells, natural killer (NK) cells, macrophages and changes in cytokine production from Th1 to Th2, favor the production of treatment-resistant dermatological conditions,[1] opportunistic infections and malignant tumors.[2]

Dermatologic manifestations can be classified into infectious and non-infectious and these into inflammatory, neoplastic and antiretroviral therapy (ART)-associated. These include oro-pharyngeal candidiasis extending to the esophagus and respiratory tract, cryptococcosis, ulcerated herpes simplex with more than 1 month of evolution and Kaposi's sarcoma (KS), which are considered cutaneous markers of HIV/AIDS.[1,3] KS is among the first defining conditions of AIDS. Opportunistic infections constitute the most frequent complications suffered by HIV-infected patients.[4]

Kaposi's sarcoma is a multifocal vascular neoplasm whose characteristic presentation is at the dermal level.[4] The main epidemiological forms are: classical, endemic or African, iatrogenic or associated with immunosuppression and epidemic or linked to the human immunodeficiency virus.[5,6] They differ in course, prognosis and frequency of presentation.[5]

The disease was described in 1872 by the Hungarian physician Moritz Kaposi as an idiopathic multiple hemangiosarcoma. He described it as a rare, multifocal, chronic cutaneous condition affecting men over 40 years of age, with visceral involvement and vascular in nature. This form is known as classic KS.[4]

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KS was considered a rare disease until the 1980s, when its incidence increased in relation to acquired immunodeficiency syndrome; human herpesvirus type 8 (HHV-8) is also related to the etiopathogenesis of this neoplasm.[7]

KS represents approximately 12 % of cancers diagnosed in people living with HIV. Clinically it manifests with characteristic macules and papules on the skin, having a 500 times higher risk of occurrence in this population.[8] The aim of the paper is to present a case of Kaposi's sarcoma in a young patient diagnosed with HIV/AIDS.

CASE PRESENTATION

A young white male patient, 32 years old, diagnosed with HIV infection since eight years ago, who spent the last three years in prison where he did not have an adequate lifestyle or a good control of his disease. About eight months after being in the community, he went for dermatologic consultation at the Primary Health Care because he began to present skin lesions that had spread rapidly.

Physical examination revealed disseminated skin lesions on the face, trunk, upper and lower limbs and ocular mucosa with raised plaques of variable size, brownish or erythematous-violaceous, with no associated subjective symptoms (Fig. 1 and 2)

Fig. 1 Erythematous-violaceous plaques on trunk and upper limbs.

Fig. 2 Erythematous-violaceous plaques on ocular mucosa.

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Complementary tests showed: hemoglobin 90 g/L, hematocrit: 0.30 L/L, leukocytes 5.2 x 109/L, erythrocyte sedimentation rate 77 mm/h, CD4 count 145 cells/ml, viral load: 200 copies/ml. Other studies were chest X-ray, AP without alterations and abdominal ultrasound where discrete hepatosplenomegaly was observed without other intra-abdominal alterations.

The patient was admitted to the Provincial Hospital "Dr. Antonio Luaces Iraola" of Ciego de Avila immediately after the clinical diagnosis where a skin biopsy was performed on one of the plaques located on the right thigh, which reported a lesion composed of bundles of spindle cells, with scarce cytoplasm, intensely eosinophilic and elongated nucleus, with finely granular chromatin. These cells formed vascular-like clefts with presence of erythrocytes inside and hyaline globules, which confirmed the diagnosis of KS.

The patient was treated with ART and chemotherapy, a few weeks later the patient became complicated with upper gastrointestinal bleeding and died.

DISCUSSION

The risk of developing cancer in people with HIV/AIDS is much higher, a fact that is attributed to the underlying immune disorder and co-infection with viruses such as human papilloma virus (HPV), human herpes 8 (HHV-8), hepatitis B (HBV), hepatitis C (HCV) and Epstein-Barr virus (EBV).[8]

KS accounts for 60 % of the tumors that develop in HIV/AIDS infected cases. About 50% of cutaneous KS occurs in these patients, apparently related to the immunosuppression they suffer from.[9]

The epidemic form of AIDS-associated KS appeared in the 1980s, most frequently in infected homosexual and bisexual males, as a disseminated disease.[9] In this case, KS occurs in association with the immunosuppression caused by HIV/AIDS.

The diagnosis of KS is made by clinical and histopathologic findings.[10] Skin lesions are manifested by asymptomatic, purplish, pink or red macules that may converge to form purplish-blue or black plaques and nodules;[8,9] edema may also be present. Occasionally the nodules may penetrate soft tissue and invade bone,[8] cause visceral damage, trachea, lungs and digestive tract, in the absence of cutaneous disease.[9] In 40 % of cases, oral mucosal and ocular conjunctival lesions may occur. Although these lesions are characteristic of this tumor, they are not pathognomonic, so it is important to keep in mind that certain infectious diseases can cause similar cutaneous lesions in this population.[8]

In a study carried out by Alcalá Villalón T et al,[11] presented a peculiar case of a patient whose diagnosis of KS was synchronous with the diagnosis of HIV infection, a fact known as clinical debut of AIDS, which has relevance in the evolution of the disease, because it means the late initiation of ART. In the case presented, the patient had had inadequate control of the disease for several years and a lifestyle that was unfavorable for his condition; in addition, in recent months he had discontinued ART, facts that undoubtedly favored the development of KS.

The mortality of this tumor is directly related to the form of presentation and the extension of the lesions. Those individuals with involvement limited to the skin have a longer survival than those with visceral involvement.[12]

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Treatment is individualized and will depend on the epidemiological variant,[9,11] generally based on ART, chemotherapy and radiotherapy. In patients with HIV infection, ART is fundamental. Radiotherapy, electrocoagulation and cryosurgery are used, and in circumscribed forms surgical excision. Other pharmacological groups are under study such as oral retinoids, pentoxifylline, interleukins 4 and 12, monoclonal antibodies against IL-6, vascular endothelial growth factor, matrix metalloproteinase inhibitors (COl-3, IM862, SU5416) and thalidomide.[9]

In this patient, ART was reestablished and during admission he consulted with oncology for the initiation of chemotherapy, a few weeks later he was complicated with a high digestive bleeding and died, which makes us think that it was a metastatic KS, almost always when the tumor affects the digestive tract it has a silent course initially, although he may present abdominal pain and digestive bleeding.[12] KS is usually not life-threatening or disabling, but when the cancer spreads to the lungs, liver or gastrointestinal tract, the situation becomes more complicated and the outcome can be fatal. Metastatic KS is associated with significant symptoms depending on the organs invaded by the metastases. The epidemic clinical form occurs in AIDS patients in a more aggressive and disseminated form.[9]

The authors of the research consider it important to emphasize how crucial it is to maintain adequate disease control and a good life regimen in patients living with HIV in order to avoid complications of immunodeficiency and improve their quality of life.

CONCLUSIONS

Adherence to antiretroviral therapy and adequate follow-up and control of patients living with HIV/AIDS is essential to reduce the incidence of infections and opportunistic diseases that can accelerate the fatal outcome.

Conflict of Interest
The authors declare that there is no conflict of interest.

Authors' Contributions
TAM: Conceptualization, research, project management, supervision, visualization, writing - original draft, writing - revision and editing.
DMHA: Conceptualization, research, writing - original draft.
CAH: Conceptualization, research, writing - original draft.
All authors approved the final version of the manuscript.

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