

Medical Imagery

Extensive AIDS-associated Kaposi's sarcoma



Case description

A 32-year-old Hispanic man presented with a long-term history of weight loss and progressive dermatosis and a 2-month history of occasional postprandial emesis after solid bolus intake. He referred to having had unprotected sex with multiple male partners and denied any other medical background or sexually transmitted disease. On physical examination, disseminated violaceous skin lesions were observed in patches (Figure

1A), as well as plaques and a right-ankle exophytic tumor (Figure 1B).

During general workup, a fourth-generation HIV ELISA test was positive. His baseline HIV-1 RNA load was 760 000 copies/ml and CD4+ T-cell count was 93 cells/mm³. A thoraco-abdominal and limb computed tomography (CT) scan revealed para-aortic lymphadenopathy and discarded lung and bone involvement. Biopsy of the ankle tumor was performed, showing positive immunohistochemical analysis results for human herpesvirus 8

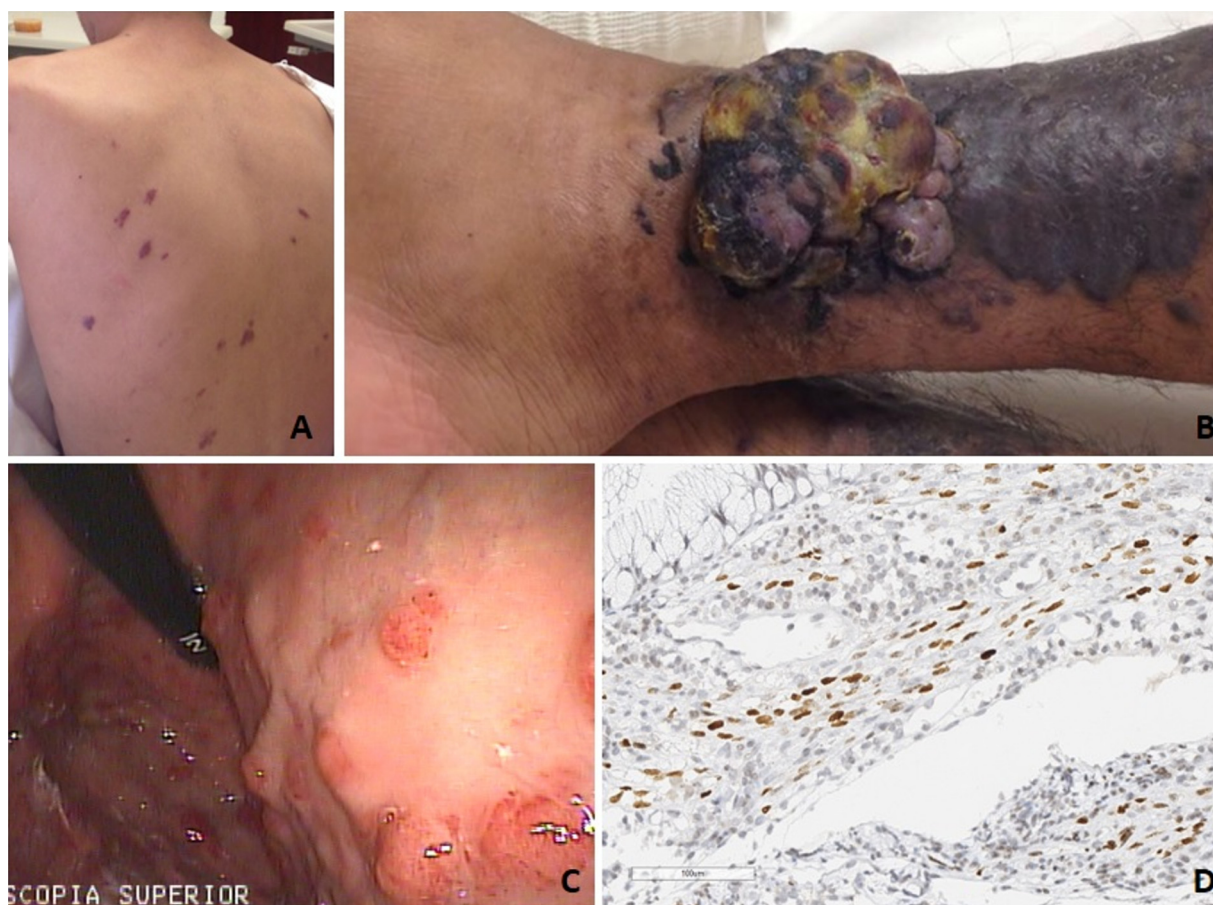


Figure 1. Extensive Kaposi's sarcoma in an HIV-infected man. (A) Multiple violaceous dorsolumbar skin lesions; (B) right-ankle tumor and KS plaques; (C) gastroscopy: erythematous nodules in gastric body and fundus; (D) positive HHV-8 immunohistochemistry of gastric nodule biopsy.

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(HHV-8), consistent with a diagnosis of Kaposi's sarcoma (KS). Gastroscopy revealed multiple erythematous nodules in the gastric body and fundus (Figure 1C), with histological analysis positive for HHV-8 (Figure 1D).

KS is considered an AIDS-defining illness, therefore highly active antiretroviral therapy (HAART) was started as soon as possible in the hospital. This was well tolerated. Eventually, the patient was discharged after counseling, specific instructions, and scheduled systemic chemotherapy. Unfortunately, the patient was lost to follow-up. This is an example of a patient with advanced manifestations of AIDS in an environment of wide socio-economic and cultural limitations.

KS is in the spectrum of angioproliferative malignancies. It is mainly caused by HHV-8 and is known as the most common malignancy in HIV/AIDS patients (Curtiss et al., 2016; Hoffmann et al., 2017). In 2010, the most common cancers among HIV-infected people in the USA were non-Hodgkin lymphoma (incidence 21%) and KS (incidence 12%). In Sub-Saharan Africa, KS and cervical cancer are the most common cancers in this population (Shiels and Engels, 2017).

The burden of KS has declined during the HAART era, although mainly in developed countries. However, low-income countries (including Mexico) have also experienced a reduction in the incidence through improvements in local programs and international assistance (Shiels and Engels, 2017; Rezende et al., 2015). The range of clinical manifestations is broad, from localized skin lesions to extensive involvement of the internal organs. Gastric KS is the most frequent extracutaneous site, and concomitant skin lesions can be found in 80% of patients with gastric involvement (Rezende et al., 2015).

An HIV RNA viral load >100 000 copies/ml and CD4+ T-cell count <200 cells/mm³ are well known risk factors for KS (Rezende et al., 2015; Goncalves et al., 2017). The differential diagnosis in this case scenario should include consideration of hemangioma, bacillary angiomatosis, mycobacterial infections, leiomyosarcoma, angiosarcoma, and other high-grade vascular tumors. Histopathological analysis is the mainstay of workup to confirm the diagnosis (Hoffmann et al., 2017).

The cornerstone of treatment for AIDS-associated KS involves the initiation of HAART. This results in an increase in CD4+ T-cell count, which can suppress the HHV-8 virus. Visceral involvement is related to an unfavorable prognosis, despite the combination of systemic chemotherapy and HAART (Hoffmann et al., 2017; Goncalves et al., 2017).

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References

- Curtiss P, Strazzulla LC, Friedman-Kien AE. An update on Kaposi's sarcoma: epidemiology, pathogenesis and treatment. *Dermatol Ther (Heidelb)* 2016;6(4):465–70.
- Goncalves PH, Ziegelbauer J, Uldrick TS, Yarchoan R. Kaposi sarcoma herpesvirus-associated cancers and related diseases. *Curr Opin HIV AIDS* 2017;12:47–56.
- Hoffmann C, Sabranski M, Esser S. HIV-associated Kaposi's sarcoma. *Oncol Res Treat* 2017;40:94–8.
- Rezende RE, Kahwage RL, da Costa TV, Machado AA, Brunaldi MO, Kemp R, et al. Upper gastrointestinal Kaposi's sarcoma in HIV-infected patients: ten years of endoscopy observation at a single Brazilian center. *Int J Infect Dis* 2015;39:110–5.
- Shiels MS, Engels EA. Evolving epidemiology of HIV-associated malignancies. *Curr Opin HIV AIDS* 2017;12(1):6–11.

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