Regression of oral Kaposi's sarcoma after combination antiretroviral therapy

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Fig. 1 **a** Purple nodule on the posterior palate, **b** histological aspect showing poorly formed spaces with erythrocytes (hematoxylin and eosin staining, magnification $\times 200$), **c** clinical caption 6 months after

combination antiretroviral therapy, evidencing regression of oral Kaposi's sarcoma

A 32-year-old homosexual Caucasian male presented with an asymptomatic lesion in the right maxilla that he noticed 6 months earlier. His past medical history revealed untreated human immunodeficiency virus (HIV) seropositivity detected 3 years earlier. Blood tests taken at presentation revealed a high viral load ($5.12 \log_{10}$ – $131,300$ copies/ml) and a low CD4-T cell count (39 cells/mm^3). An intraoral examination

revealed a non-ulcerated, purple nodular lesion on the right side of the posterior palatal mucosa, extending to the tuberosity and buccal mucosa, with flaccid consistency, measuring approximately 25 mm in diameter at its largest point (Fig. 1a). The clinical picture was suggestive of Kaposi's sarcoma (KS), but kaposiform hemangioendothelioma, pyogenic granuloma, vascular malformations, and non-Hodgkin's lymphoma had to be considered as differential diagnosis [1]. After incisional biopsy, microscopic examination revealed a nodular or fascicular proliferation of ovoid and spindle cells, with mild nuclear pleomorphism, numerous vascular slit-like spaces containing red cells, sparse admixed lymphocytes and plasma cells, and perivascular deposits of hemosiderin (Fig. 1b), all of which confirmed the diagnosis of KS. The patient was treated with tenofovir, lamivudine and efavirenz (combination antiretroviral therapy—cART). After 6 months, the oral lesion had fully regressed (Fig. 1c). Viral load was then undetectable (constantly $<75 \text{ copies/mm}^3$) and the CD4+ count was $>500 \text{ cells/mm}^3$.

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KS is a multifocal angioproliferative tumor caused by HHV-8 (also known as Kaposi sarcoma-associated herpes virus) [2]. It is an autoimmune deficiency syndrome (AIDS)-defining condition in individuals with HIV [3]. In patients with AIDS, KS is the second most frequent tumor, is more aggressive than in HIV-seronegative people, and is common in the oral mucosa [4]. After the initiation of cART, KS and KS-associated herpes usually regress within 6 months [5].

Conflict of interest None.

Ethical standards This report is presented with written informed consent from the patient.

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