An uncommon localization of Plasmablastic lymphoma in a patient with previously undiagnosed HIV infection

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Dear Editor,

Plasmablastic lymphoma (PBL) is a rare and highly aggressive non-Hodgkin's lymphoma (NHL) with predilection for the mucosa of oral cavity. It is frequently associated with human immunodeficiency virus (HIV) infection. Here, we report an uncommon case of extra oral PBL arising in the nasopharynx of a young woman who was later found to be HIV positive.

A 40-year-old woman was admitted in the National Institute of Oncology for a progressive bilateral nasal obstruction, fever and hypoacusis with a complaint of swelling in the left cervical area that gradually grew in size over a period of one year and 15% of body weight loss within 6 months. The patient did not give a history of tobacco smoking, alcohol consumption or drug use.

Clinical examination found a painful cervical left lymphadenopathy measuring 8x10 cm, associated with inflammatory signs located in front of the swelling [fig 1]. A computed tomography scan of the head and neck revealed a postero lateral nasopharyngeal mass with cervical lymph nodes and central necrosis.

A nasopharyngeal biopsy was performed and histopathologic examination revealed a massive infiltration by large lymphoid cells with round, vesicular nuclei and a high proliferation rate [fig2]. In immunohistochemistry analysis, lymphoma cells were strongly positive for leukocyte common antigen, CD138 and CD79a without staining for CD20, CD3 and cytokeratins [fig 3,4]. HHV8 and CMV were negative.

Regarding clinical, morphological, phenotypical, and molecular findings, a diagnosis of plasmoblastic lymphoma was rendered. The whole body CT scan showed multiple nodules scattered throughout both lung fields with multiple hypodense lesions in the spleen and liver. Multiple-site bone marrow aspirates were performed. The results showed normocellular marrow with focal infiltration of plasmablasts, which were morphologically similar to the cells in the tumor mass. Her disease was at stage IV according to the Ann Arbor classification system.

A routine hematological examination revealed microcytic hypochromic anemia with a decreased number of lymphocytes. A serological investigation showed HIV- 1, -2 seropositivity and negative tests for B and C hepatitis antigens .The patient was treated with highly active antiretroviral therapy associated to CHOP regimen (cyclophosphamide, doxorubicin, vincristine and prednisone). Her radiological evaluation after the fourth cycle showed a complete resolution of the nasopharyngeal mass with 75% decrease in her cervical nodes and liver mass, the treatment was therefore extended. After the sixth cytostatic cure, the patient presented with a febrile neutreupenia along with severe immunosuppression, and her family reported that she had discontinued the antiretroviral therapy after being well in the fourth cycle without informing the medical staff. She died three days later with multi organ failure.

Plasmablastic lymphoma (PBL) is a rare variant of diffuse large B-cell lymphoma and typically presents in the oral cavity in the clinical setting of HIV infection [1]. It has also been reported in other sites such as the stomach, cervical lymph nodes, lungs, orbit and paranasal sinuses. Only one previous case of nasopharyngeal PBL has been reported in English medical literature [2]. Histological analysis of PBL is characterized by the lack of expression of CD20 and CD45, and a strong reactivity for plasmacytic markers, such as CD38 and CD138 [3].

Historically, the prognosis for patients with AIDS associated with PBL has been poor, with very few long-term survivors. However, the introduction of modern highly active antiretroviral therapy (HAART) appears to be associated with better prognosis in large series of patients with AIDS-related lymphomas [4.5]. As in the other types of NHLs, combination chemotherapy with cyclophosphamide, doxorubicin, vincristine and prednisone are considered first-line therapy. However, it is imperative to include prophylaxis against opportunistic infections for HIV patients receiving chemotherapy in association with a highly active antiretroviral therapy, without neglecting to verify the real compliance to the treatment of each patient for a better outcome.

Author's contribution(s)

GM has participated in all care for the patient and has drafted the manuscript. All authors have made contributions by making diagnosis and intellectual input in the case and have read the manuscript.

Competing Interests

The authors declare that they have no competing interests.

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Figures

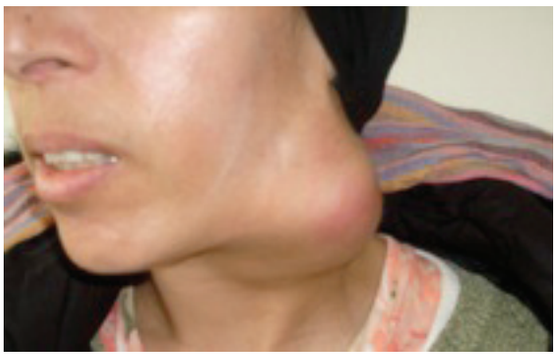

Fig. 1: Left cervical lymphadenopathy

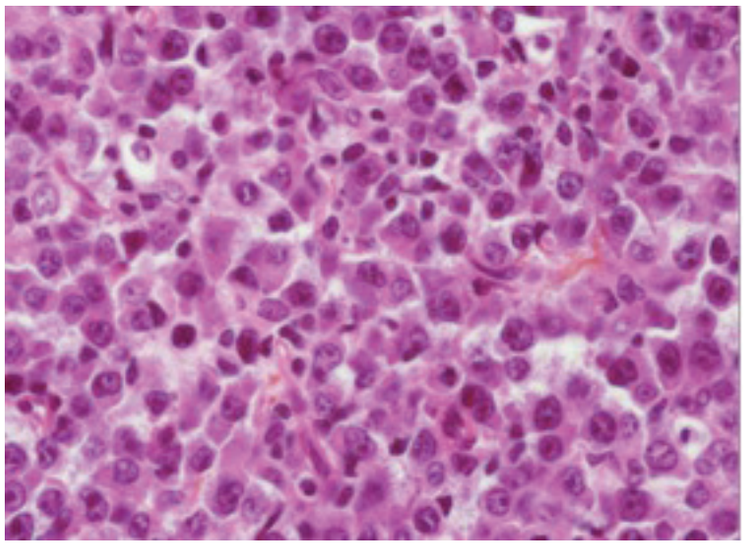

Fig. 2: Morphology of PBL :the tumor cells has abundant cytoplasm with prominent Central nucleoli, centroblastic cells with peripheral-based nucleoli.

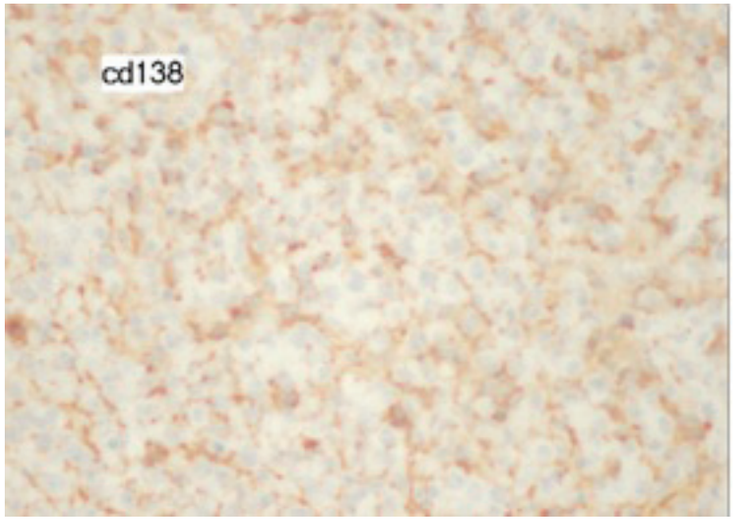

Fig. 3: The large tumor cells express CD138

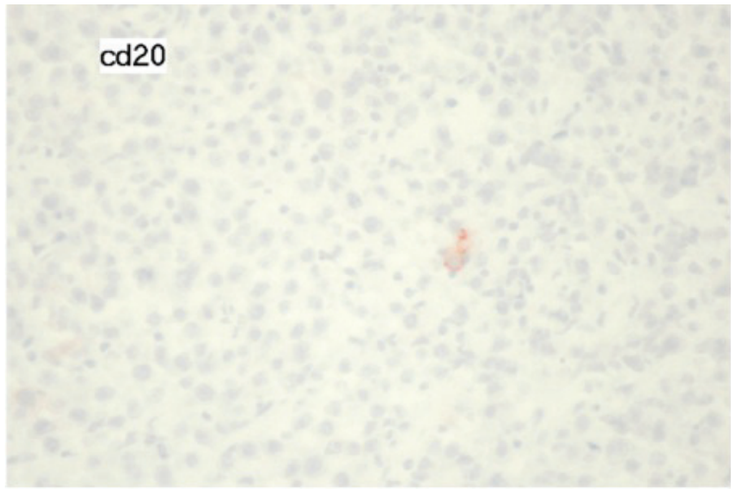

Fig. 4: Neoplastic cells negative for CD20