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PHOTO QUIZ

A bulky mass in an HIV-positive patient

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A 44-year-old man with human immunodeficiency virus (HIV) infection was referred to Tygerberg Academic Hospital (Cape Town, South Africa) with a two-month history of progressive swelling of the left side of his face, difficulty swallowing, fever, night sweats, and involuntary weight loss of 7 kg. He had been on treatment for pulmonary tuberculosis for four months. On physical examination he had a large mass on his left cheek and swelling of the ipsilateral eyelid, both lips, and his tongue (*figure 1*). The CD4 count was 98 cells per cubic mm.

Figure 1. *Patient on presentation*

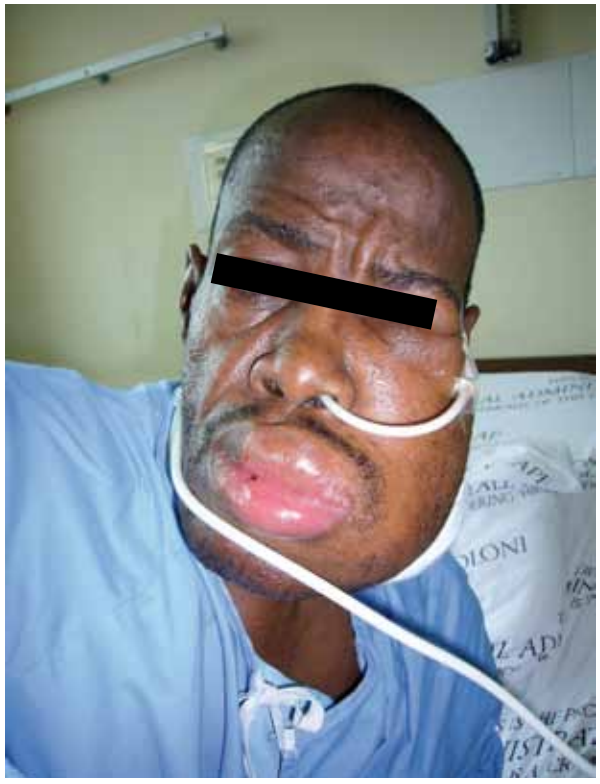
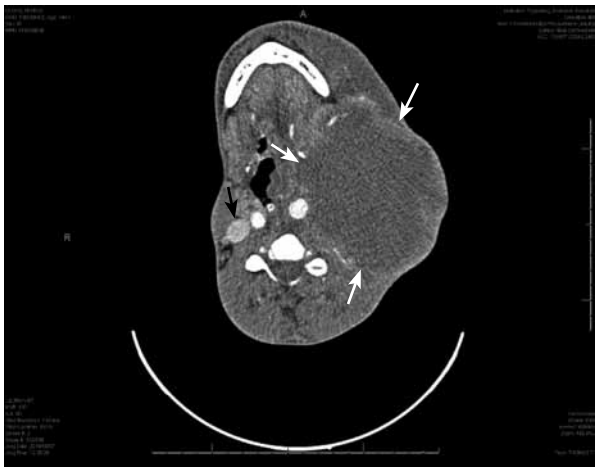


Figure 2. *CT-scan of the neck. White arrows point to the mass; black arrow points to the right internal jugular vein; note that left internal jugular vein is not visible.*



Contrasted computed tomography (CT) scanning showed a ring enhancing mass extending from the infratemporal fossa to the submandibular region with occlusion of the left internal jugular vein and displacement of the midline to the right (*figure 2*). Alongside with extensive lymphadenopathy on both sides of the diaphragm, bilateral lung and kidney nodules, and hepatosplenomegaly. Previous fine needle aspirations of the mass on his cheek had twice given inconclusive results. A nasopharyngeal biopsy was taken for histological examination.

WHAT IS YOUR DIAGNOSIS?

See page 291 for the answer to this photo quiz.

ANSWER TO PHOTO QUIZ (PAGE 287)

A BULKY MASS IN AN HIV-POSITIVE PATIENT

DIAGNOSIS

The biopsy showed malignant lymphoid cells just below the nasopharyngeal mucosa. The morphological and immunohistochemical profile confirmed the presence of a diffuse large B-cell lymphoma. Bone marrow and cerebrospinal fluid examination were unremarkable. In the absence of rituximab, the patient was treated with a chemotherapeutic regimen of cyclophosphamide, doxorubicin, vincristine, and prednisolone (CHOP), together with highly active antiretroviral therapy (HAART) consisting of lamivudine, tenofovir disoproxil fumarate and efavirenz and prophylactic trimethoprim-sulfamethoxazole. He died of sepsis after three courses of chemotherapy, during an episode of neutropenia. Forty percent of HIV-infected individuals will develop a form of cancer during their lives.[1] The risk of developing a non-Hodgkin's lymphoma (NHL) in patients with acquired immunodeficiency syndrome (AIDS) is 165-fold increased, compared with the population not infected with HIV. These tend to be more high-grade malignancies and have more extranodal and central nervous system involvement.[2] Pathophysiology of NHL in HIV-infected patients is complex and heterogeneous. Dysregulation of the immune system by HIV, leading to loss of control of Epstein-Barr virus (EBV) infection, seems to play an important role.[3] Targeting the CD20 antigen on B-lymphocytes with the monoclonal antibody rituximab added to the CHOP regimen, has led to a better outcome in patients with B-cell malignancies.[4] Treatment outcomes have also improved considerably since the addition of HAART to chemotherapy, leading to outcomes comparable with HIV-uninfected individuals. Advanced immunodeficiency and high age are associated with worse outcomes, highlighting the need for early diagnosis of both HIV infection and lymphoma to improve patient survival.[5] We advocate to test for HIV in every patient who presents with a malignant lymphoma. Secondly, every known HIV-infected individual with unexplained nodules should be accurately worked up for the presence of a malignancy.

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