



Plasmablastic lymphoma of the maxillary sinus

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Plasmablastic lymphoma (PBL) is a rare and aggressive subtype of non-Hodgkin lymphoma that affects the oral cavity, with most cases being associated with human immunodeficiency virus (HIV)-positive individuals.

The incidence of PBL is estimated in 2–12% of all HIV-associated lymphomas [1]. The incidence in the non-infected population is unknown due to its rarity.

A 37-year-old male with HIV on anti-retroviral therapy and a CD4 count of 661 cells/ μ L presented with left facial pain and swelling for 3 weeks.

On physical examination, the patient's face was grossly asymmetric with left cheek swelling. Intraoral examination showed protrusion of the left cheek.

Computed tomography (CT) scan of the face and sinuses revealed a 5.5 \times 7.5 cm left maxillary sinus osteolytic mass, involving the left nasal fossa and extending through the intraorbital cavity and dental arch (Fig. 1a). Magnetic resonance imaging was performed for better characterization (Fig. 1b).

PET/CT scan showed the 4.5 \times 5.2 \times 4.5 cm hypermetabolic mass in the left maxillary sinus, a 1.8 \times 1 cm left cervical lymph node (level III) adjacent to the sternocleidomastoid muscle and a 1.8 \times 1 cm left cervical lymph node

(level IB) near the submandibular gland. No other evidence of disease was found (Fig. 1c).

Biopsy of the mass revealed a massive infiltration by large cells with prominent nucleoli and plasmacytic differentiation with extensive necrosis (Fig. 1d).

Neoplastic cells were positive for CD 138, MUM1, BCL 6, Ki67 (90% expression), and MYC and Epstein-Barr virus-encoded small RNA (EBER) in situ hybridization. They were negative for CD20, CD79a, CD3, CD56, CD5, CD10, and BCL2.

The patient is currently receiving six cycles of chemotherapy with EPOCH (etoposide, prednisone, vincristine, cyclophosphamide, and doxorubicin). An autologous bone marrow stem cell transplantation is planned at first remission.

There is no consensus on what should be the standard treatment and treatment regimens have been largely varied due to the low frequency of PBL. A retrospective study showed longer survival in patients treated with EPOCH compared with those who received CHOP (17 versus 7 months, $p < 0.04$) [2]. The autologous stem cell transplantation when used in first remission after chemotherapy has been reported to be associated with prolonged survival [3].

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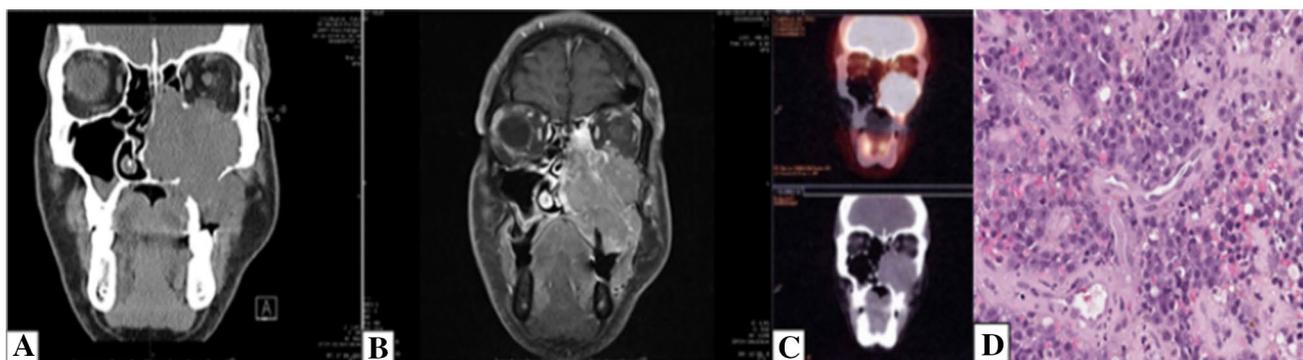


Fig. 1 CT (a), MRI (b), and PET/CT (c) images of the head, coronal view left maxillary sinus osteolytic mass, involving the left nasal fossa and extending through intraorbital cavity and dental arch. **d** His-

tological section from the biopsy (hematoxylin and eosin): massive infiltration by large lymphocytes with prominent nucleoli and plasmacytic differentiation

The PBL has a poor prognosis. The median survival ranges between 5 and 24 months.

Compliance with ethical standards

Conflict of interest On behalf of all the authors, the corresponding author states that there is no conflicts of interest.

Statements on human and animal rights This article does not contain any study involving human and animals performed by any of the authors.

Informed consent Informed consent is not applicable.

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