Thoracic Plasmablastic Lymphoma in an Elderly Immunocompetent Patient

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1. Introduction

Plasmablastic Lymphoma (PBL) is a rare but extremely aggressive type of non-Hodgkin’s Lymphoma; it is commonly associated with HIV infection, with an incidence of approximately 2.6% among lymphomas in HIV-positive patients. Less frequently, it can also be seen in patients with other immunodeficiencies. The most commonly reported sites of PBL involvement are the oro-nasal cavity and the digestive tract. Its cellular and molecular behavior pose a significant therapeutic challenge, since it is classified as a chemoresistant neoplasm, thus its associated prognosis is usually not favorable. Due to its rarity, there are no well-established protocols for the therapeutic management of patients with this diagnosis. In the present study, we report a case of a thoracic PBL in an HIV-negative patient without other immunodeficiencies, diagnosed by surgical biopsy performed via video-assisted thoracoscopic surgery. Few cases in the literature report this type of neoplasm in immunocompetent patients.

2. Objective

To describe a case of thoracic plasmablastic lymphoma in an HIV-negative patient.

3. Case Presentation

Female patient, 78 years-old, previously healthy, presenting with upper abdominal pain and unintentional weight loss starting one month prior consultation. Abdominal CT showed an infiltrative process involving the mediastinum, in a paravertebral situation, on the right side, from T10 to L2, with a paravertebral mass affecting the right pleural compartment and right paravertebral musculature, infiltrating/absorbing the proximal segment of the right 11th rib, measuring 8.0 x 3.0 cm in its largest transverse diameters. Videothoracoscopy was performed for surgical biopsy of the lesion and exploration of the right pleural cavity; the procedure revealed a small pleural effusion. Surgical specimens were sent for pathological and immunohistochemical study, which determined the presence of plasmablastic malignant neoplasm, compatible with Plasmablastic Lymphoma; (Figure 1).

Figure 1: Histological Section of Surgical Specimen
pleural fluid was sent for cytological analysis, which revealed the presence of undifferentiated malignant neoplasm [1-4]. Oncology team continued with clinical investigation, determining, through clinical history and multiple laboratory tests, the absence of HIV infection and other factors associated with immunosuppression in this patient. The chosen therapeutic strategy was association of radiotherapy with chemotherapy (DA-EPOCH-R); however, minimal response was observed. The patient developed spinal cord compression, followed by a sudden episode of massive gastrointestinal bleeding attributed to actinic retinitis. Due to her hypovolemic condition and irreversible hemodynamic instability, unfortunately, the patient died.

4. Conclusion

Although rare, Plasmablastic Lymphoma is a reality among the numerous neoplastic clinical entities and should be included in the differential diagnoses of other types of Lymphoma, even in immunocompetent patients. Communication between the surgical, oncology and pathology teams is essential for the correct clinical-surgical investigation, determining the correct diagnosis, in order to allow the fulfillment of a well-directed therapeutic plan.

References