Angioimmunoblastic T-cell lymphoma in elderly patient with a previous diagnosis of infectious mononucleosis: a challenge for cancer treatment – case report

Angioimmunoblastic T-cell lymphoma (AITL) is a rare subtype of peripheral T-cell lymphoma, which represents about 2% of all non-Hodgkin lymphomas (LNH).1,2 However, it occurs in about 16.8% of peripheral T cells lymphomas (PTCL), making it the most common type of this neoplasia.1

It affects mainly people in the sixth and seventh decades of life (mean age of 59-64 years old) and is usually presented as a systemic disease.3 Its prevalent among men, with a male-female ratio of 2:1.1,2

AITL was initially described as angioimmunoblastic lymphadenopathy with dysproteinemia, and defined as a clinical syndrome characterized by generalized...
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Hyperglobulinemia and grade IV neutropenia were identified. A chest X-ray revealed bilateral diffuse reticular consolidations, a suggestive pattern of cephalization with pulmonary flow/congestion. Computed tomography of the abdomen and pelvis showed a volumetric increase of liver and spleen, generalized lymphadenopathy in celiac chains, superior and inferior mesenteric, pre-aortic, para-aortic, cava intra-aortic, common iliac, internal and external, and bilaterally inguinal.

The histopathological analysis of the right inguinal lymph node biopsy was suggestive of diffuse small cell lymphoma, and the biopsy of the iliac crest revealed bone marrow fragments with increased cellularity compared to the myeloid tissue. There was a proliferation of cells with enlarged nuclei with interstitial monomorphic group pattern. Immunohistochemistry performed on 03.08.12 revealed that it was an angioimmunoblastic T-cell lymphoma, Ki-67 positive in the amount of 70% (high), and CD4 and CD8 positive. Presented positive granzyme B, proliferation of post-capillary venules associated with lymphoid proliferation and sometimes large T lymphoid cells of the immune-phenotype B (CD20+).

The first cycle of chemotherapy was immediately started with cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP), however, without a positive response. Additionally, cefepime was prescribed due to persistent fever; and furosemide for the worsening of systemic edema. Presented toxicity and side effects of the chemotherapy cycle with grade II anemia, grade IV neutropenia and grade I thrombocytopenia; the patient’s death was associated with persistent refractory acute peripheral circulatory failure to treatment.

**DISCUSSION**

AITL is a rare type of peripheral T-cell lymphoma with poor prognosis. The diagnosis is more common in the age group of 59-65 years (ranging from 27-90 years), especially in men. In 67.7% of patients, the observed staging is located in Ann Arbor III or IV; 58.1% present B symptoms (sweating, weight loss, and fever); 48.8% demonstrate hypoalbuminemia (<35 g/L), and 63.3% presents high lactate dehydrogenase content (LDH) upon diagnosis.1 In this case, the patient was a 60 years old male who reported B symptoms.

In this report, infectious mononucleosis was previously diagnosed, however, the relationship between
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As the first therapeutic option. However, therapy with this regimen demonstrated a significant number of patients who achieved complete clinical remission compared with only conventional chemotherapy for aggressive lymphomas.11,19

**CONCLUSION**

It can be concluded that AITL is rare. However, it remains as an aggressive disease with poor prognosis even with the most recommended treatment, i.e., COP/CHOP. The factors that may be associated with poor prognosis are: elderly patients, advanced stages, poor general condition, constitutional symptoms, and systemic involvement. The overall five-year survival was approximately 30%, with a median survival of fewer than 26 months.

Treatment with high-dose chemotherapy associated with autologous stem cells (HDC/ACST) was associated with better outcome compared to just chemotherapy.11,12 However, peripheral T cells lymphomas still do not present well-defined results.

Other treatment regimens should be investigated in order to find and consolidate a standard treatment allowing better prognosis, with overall survival and longer disease-free survival.

This report presents the severity of this form of anatomo-clinical presentation of non-Hodgkin lymphomas, which diagnosis should be considered, especially in elderly patients with generalized lymphadenopathy, hepatosplenomegaly, anemia, hypergammaglobulinemia, eosinophilia, weight loss, rash, characteristics of autoimmune diseases, aggressive behavior, and poor response to chemotherapy.

**REFERENCES**

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