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Marginal Zone Lymphoma and Myelodysplastic Syndrome with Excess Blasts Type 2: About a Case

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Abstract **Case Report**

Marginal zone lymphoma and myelodysplastic syndromes are two distinct malignant blood disorders, of which the association remains exceptional. We report the case of a 75-year-old patient with this rare association and we discuss through this observation the hematological aspects of this pathology.

Keywords: Marginal Zone Lymphoma - Myelodysplastic Syndrome - Excess Blasts Type 2.

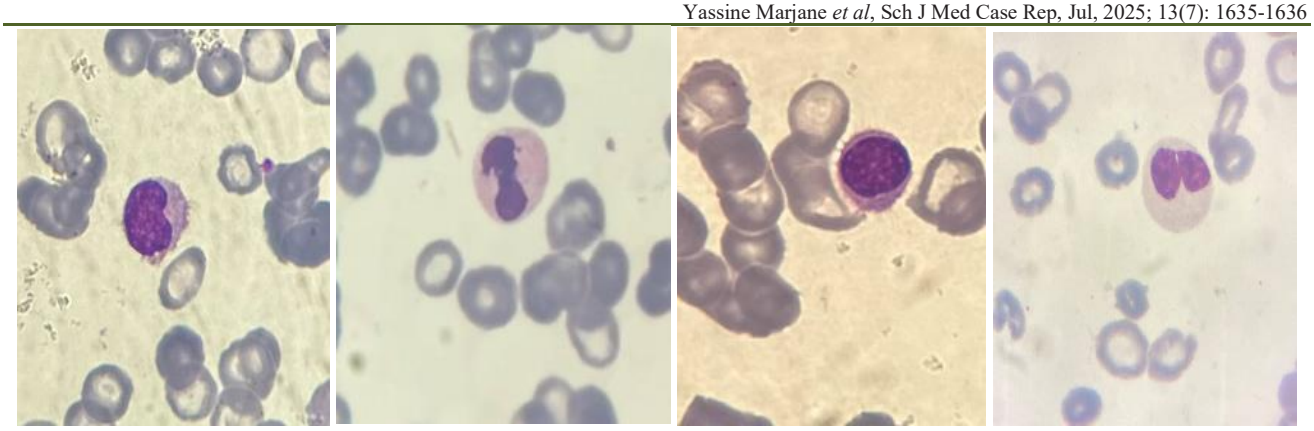
INTRODUCTION

Marginal zone lymphoma (MZL) and myelodysplastic syndromes (MDS) are two distinct malignant hematological disorders, and their association is still exceptional. Marginal zone lymphomas (MZL) are a subgroup of non-Hodgkin lymphomas (NHL), whose cells derive from B lymphocytes normally present in the marginal zone of secondary lymphoid follicles. Myelodysplastic syndromes (MDS) form a heterogeneous group of disorders mainly affecting the elderly, characterized by ineffective hematopoiesis and peripheral cytopenias.

OBSERVATION

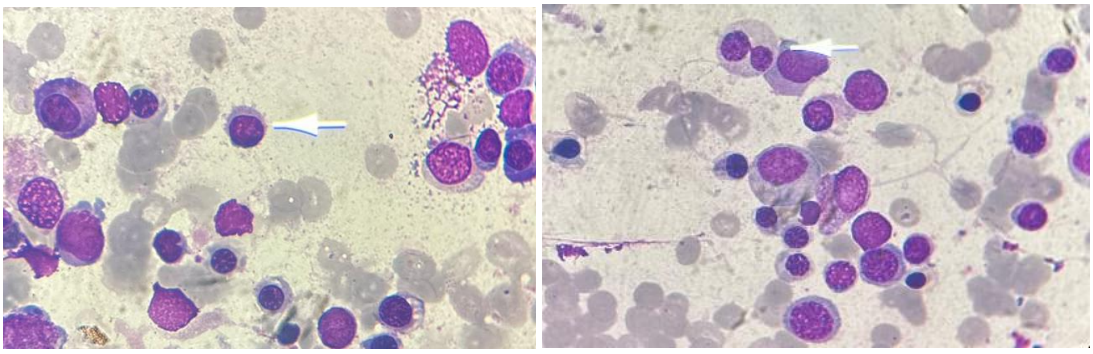
We report the case of a 75-year-old patient with no notable past medical history, who presents with an anemic syndrome (asthenia, pale skin and mucous membranes, headache). The biological assessment reveals pancytopenia (normochromic, normocytic regenerative anemia, neutropenia, thrombocytopenia). The blood smear shows peripheral infiltration by 52% of medium-sized lymphomatous-looking cells, a high nuclear-cytoplasmic ratio, intermediate chromatin, and agranular basophilic cytoplasm. Signs of dysgranulopoiesis, including nuclear hyposegmentation with karyorrhexis and cytoplasmic degranulation of neutrophils, are also observed.

The myelogram reveals a rich bone marrow, with the presence of 13% atypical lymphoid cells. There is severe dysplasia affecting the three lineages: granulocytic, erythroid, and megakaryocytic. The rate of bone marrow blasts is 5%, some myeloblasts exhibit Auer bodies, which suggests a myelodysplastic syndrome with multi-lineage dysplasia of MDS-IB2 type.



A B C D

Figure 1: Blood smear (May-Grunwald-Giemsa staining ×1000) A, B: atypical lymphocytes C, D: signs of dysgranulopoiesis



A B

Figure 2: Myelogram (May-Grunwald-Giemsa staining ×1000) A: atypical lymphocyte B: signs of dysplasia

DISCUSSION

The association between an LZM and a SMD-IB2 is rare, making this clinical case particularly interesting. The LZM is a subtype of NHL, often observed in older patients. The SMDs, on the other hand, are considered pre-leukemic states with an increased risk of transformation into acute myeloid leukemia. In our case, the patient presents mixed biological signs, namely pancytopenia accompanied by dysplasias and atypical lymphomatous infiltration [1, 2].

The observed dysplasias are characteristic of myelodysplastic syndromes (MDS), indicating advanced myeloid involvement. Meanwhile, the medullary infiltration by atypical lymphoid cells raises the hypothesis of a rare transformation or a lymphoid-medullary association, which is unusual. For management, therapeutic options may be limited due to age-related fragility and the combination of the two pathologies [1, 2 et 3].

CONCLUSION

This case highlights the rarity and complexity of the association between an LZM and a SMD. The clinical evolution of these patients remains unpredictable and requires a multidisciplinary approach to optimize therapeutic outcomes while minimizing toxicity. This clinical case emphasizes the need to continue research and share experiences to refine the diagnostic and therapeutic strategies for these rare presentations.

Conflict of Interest: The authors declare that they have no conflict of interest.

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