

## Letter to Editor

# Leukemia and Related Conditions

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**DEAR EDITOR**

I have read the very interesting review manuscript by Arber AA et al.(2016), related to the current WHO classification of myeloid neoplasms and acute leukemia [1]. The authors are hematopathologists, hematologists, oncologists, and geneticists; and showed new clinical, prognostic, morphologic, immunophenotypic, and genetic data [1]. They focused recent perspectives regarding major diagnostic and prognostic markers that provide novel insights for the understanding of the pathobiology of these disorders [1]. The characterization and standardization of morphological features that can yield more accurate diagnosis and differentiation of the disease groups were highlighted as well [1]. The recent review of WHO classification cleared controversies involving concepts on hematopoietic and lymphoid neoplasia, as was posed by authors as Polski JM (2013) [2]. The author commented doubts of hematopathologists about some diagnostic criteria, and emphasized that the WHO classification is lineage based and without any exception [2]. He cited a case involving confusion of three oncologists about the suitable treatment, and made clear that revisions provide better ways to deal with rare lineage exceptions [2]. Additional concerns were about some cases do not neatly fit the defined disease entities. Worthy of note, more sophisticated and cumbersome investigation tools are not available to better clear challenging diagnosis in the routine practice of the low income countries.

This scenery allows the inclusion of comments based on two Brazilian cases [3,4]. A 61-year-old woman with adult T-cell leukemia/lymphoma had mesenteric and retroperitoneal lymph node enlargement, and milky fluid ascites. In fact, uncommon abdominal manifestations were the hallmark of the present report. Paracentesis revealed a 500 red cells, 3400 nucleated cells, 85% mononuclear cells, proteins 2.56 g/dL, albumin 1.63 g/dL, glucose 120 mg/dL, LDH 534 IU/dL, total cholesterol 64 mg/dL, and triglycerides 154 mg/dL (chylous ascites). Phenotype evaluation of peripheral lymphocytes from blood and bone marrow samples revealed the expressions of CD3, CD4, CD25, and CD45; with absence of CD7, CD8 and CD20 expressions [3]. The circulating T-lymphocytes had polylobate nuclei and typical "flower cell" features. Moreover, the high sample-to-cut-off (s/co) ratio on chemiluminescent immunoassay for HTLV-1 [103.57 (<1) s/co], was strongly consistent with diagnosis of this infection

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[3]. The fragile patient underwent the treatment for HTLV-1 (AZT and pegylated interferon), but her death occurred due to multiple organs failure before hematological treatment [3]. Furthermore, a 53-year-old woman was diagnosed with multiple myeloma and secondary plasma cell (PC) leukemia [4]. Bone marrow study showed 25% of PCs, expressing CD20, CD38, CD117, CD138 and lambda light chain restriction; there was no expression of CD19, CD45, and CD56, and was considered consistent with multiple myeloma. Peripheral smears showed 2600 PCs/ $\mu$ L (23%), the majority with dysplastic pattern [4]. After chemotherapy (DTPACE), she was referred to the bone marrow transplantation [4].

These comments are mainly addressed to non-specialists in onco/hematology.

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