Reviewer’s report

Title: De novo acute lymphoblastic leukemia-like disease of high grade B-cell lymphoma with MYC and BCL2 and/or BCL6 rearrangements: a case report and literature review

Version: 2 Date: 30 Jul 2017

Reviewer: Kung-Chao Chang

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CPAT-D-17-00019_R2

De novo acute leukemia-like disease with MYC and BCL2 rearrangements: a case report and literature review

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BMC Clinical Pathology

In the revised article, Uchida et al. described a rare case of high-grade B-cell lymphoma (HGBL) with acute leukemia-like clinical presentation and MYC and BCL2 rearrangements. They have made some changes but some problems remain.

1. The authors used "De novo acute leukemia-like disease…" as the title, which is not specific. I would suggest use "De novo acute leukemia-like high grade B-cell neoplasm with MYC and BCL2 and/or BCL6 rearrangements: a case report and literature review".

2. The including criteria of cases in the literature (Table 1 cases) are still misleading. Based on the updated WHO classification of lymphoid neoplasms (Ref. 3, Figure 4, page 2383), those cases, which in the literature show TdT expression, blastoid morphology (L2 morphology) and/or lack of surface immunoglobulin light chain expression, should be excluded (Table 1). MYC and BCL2 translocations in B-cell precursor acute lymphoblastic leukemia, although rare, have been reported (Pediatric Hematology and Oncology. 2015;8:535). Double hit per se is not the defining criteria for this entity. In addition, the authors should define clearly the term "AL-HGBL". What is "acute leukemia-like"? What is the cut-off value for the percentage of tumor cells in the bone marrow? They have described "the cases with BM involvement (at least ≥ 20% of nuclear cells) of non-centroblastic blastoid cells…". However, some cases they included were not leukemia-like but just stage IV lymphoma (such as Case 52 from Ref. 33, Table 1). Furthermore, some cases are triple-hit lymphomas not only double-hit lymphomas (such as Case 55 from Ref. 33, Table 1).
3. Figure 2D should be added in the text.

4. The sentence "The median survival of the collected cases suggests that TdT-negative AL-DHL, namely AL-type HGBL may have a worse prognosis than any other morphological type of HGBL." (page 6) I wonder if TdT-negative AL-DHL is the same as AL-type HGBL. They should be different.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
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