Reviewer’s report

Title: Relapsed angioimmunoblastic T-cell lymphoma with acquired expression of CD20: A case report and review of the literature

Version: 3 Date: 16 February 2013

Reviewer: Zhi Li

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Major Compulsory Revisions

CD20-positive angioimmunoblastic T-cell lymphoma (AITL) is a rare but distinct phenomenon. The accurate diagnosis of CD20-positive T-cell lymphomas is very important for clinical treatment and also is a challenge for histopathologists. This case is well described, but some problems should be clarified in the article:

1. Is CD20-positivity in T-cell lymphomas an “acquired” expression of neoplastic T lymphocytes or an “aberrant” expression in T-cell lymphoma arising from circulating CD20 positive T cells? There remains controversial for the mechanism of CD20 expression in T-cell lymphomas, including CD20+ AITL, CD20+ NK/T-cell lymphoma and CD20+ peripheral T-cell lymphoma, NOS. The hypotheses of the nature of CD20-positive T cell lymphoma include circulating CD20 positive T cells undergoing neoplastic transformation, a marker of normal T cell activation, and an activation marker acquired after neoplastic transformation. The possible mechanism of CD20-positive in AITL should be discussed in the paper.

2. If CD20-positive lymphoma described in this paper is an AITL-developed secondary B-cell lymphoma? It has been documented that the development of B-cell lymphoma can be a consequence of the disease progression of AITL. B-cell lymphoma can also coexist with AITL in same lymph node. Therefore, the differential diagnosis of secondary or coexistent B-cell lymphoma with AITL is important for pathologists even if cytogenetic abnormalities have been detected by PCR assay. The authors should provide an illustration to verify the co-expression of CD3 and CD20 in the same cell population with PD-1 or CXCL-13 positivity in serial sections. In addition, the key points of differential diagnosis of AITL-developed secondary B-cell lymphoma should also be summarized in discussion section.

3. In figure 3C-E, it is difficult to distinguish reactive B-cell (CD20 and CD79a positive) from neoplastic T-cell (CD3 positive), please replace these figures.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
Statistical review: No, the manuscript does not need to be seen by a statistician.