Reviewer's report

Title: Myeloid antigens in childhood lymphoblastic leukemia: clinical data point to regulation of CD66c distinct from other myeloid antigens

Version: 1 Date: 4 January 2005

Reviewer: Frederick Behm

Reviewer's report:

General
After almost two decades the mechanism of aberrant expression of myeloid-associated antigens by blasts of precursor B-cell acute lymphoblastic leukemia (B-ALL) remains elusive. Although aberrant myeloid antigen expression in ALL is not predictive of treatment outcome, it has proven valuable in monitoring minimal residual disease and in a minority of B-ALLs is predictive of several nonrandom chromosomal abnormalities. In a well-designed study, the authors' data suggest that the mechanism of CD66c expression by B-ALL differs from other myeloid antigens including CD13 and CD33. Their study further shows that CD66c expression, unlike CD13 and CD33, is stable from diagnosis to relapse. Although the number of cases included in this study is relatively small and the clinical follow-up interval short, this study is in line with other reports that CD66c expression by B-ALL is not prognostically significant.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Authors should explain why a 20% value for a positive CD66c antigen expression was chosen as listed in Table 1 & Figure 1 but not detailed in the Methods section. The authors state that values of 5%, 10%, and 50% were looked at for prognostic significance (Results, Prognostic significance of CD66c expression subsection). Were various cut off values for positivity similarly looked at when comparing the frequency of expression of CD13, CD33, and other myeloid antigens with CD66c?

2. The "...known risk factors..." examined in conjunction with CD66c expression (Results, Prognostic significance of CD66c expression subsection) should be listed, preferably in Table format.

3. The total number of CD66c positive cases in Figure 1 is 41% (150 of 365 cases) but is listed as 43% in the Results, first paragraph.

4. The unit for the Y axis for Figure 3 needs clarification.

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Discretionary Revisions (which the author can choose to ignore)
What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.