Reviewer’s report

Title: Comparison between clinical features and prognosis of malignancy- and non-malignancy–associated pediatric hemophagocytic lymphohistiocytosis

Version: 2 Date: 21 May 2019

Reviewer: Research Square

Reviewer's report:

"STATISTICAL REVIEWER ASSESSMENT:

Is the study design appropriate for the research question (considering whether the analyzed population accurately reflects the design and whether you see any problems with control/comparison groups, e.g., likely confounders)?

No - there are minor issues

Are methodologies adequate and well implemented (considering whether assumptions are addressed and whether analyses are robust)?

Yes - methodologies are adequate and well implemented, assumptions are addressed, analysis is robust

Are the analyses adequately communicated (considering whether reporting details are adequate and whether figures and tables are well labeled and described)?

Yes - important reporting details are present, analyses are adequately communicated, figures and tables are well labeled and described

Does the interpretation accurately reflect the analyses without overstatement (considering whether limitations/bias are acknowledged and whether accurate descriptors, e.g., 'significant', are used)?

No - there are minor issues
Could an appropriately REVISED version of this work represent a statistically sound contribution?

Probably - with minor revisions

STATISTICAL REVIEWER COMMENTS:

The authors have addressed almost all the issues raised previously. Still, they have just mentioned '… retrospectively reviewed …' in study design. Specify whether it was cross-sectional or historical cohort (seems with the long study duration from January 2005 to October 2016) or time series or any other. Also, it would be better if they indicated the modifications made in the manuscript in different color.

They have applied relevant inferential statistical tests such as Mann-Whitney U, chi square, Spearman rank correlation, univariate and multivariate Cox analyses to make the conclusion reliable. Application of the survival analysis was one of the important areas where the authors have done well in terms of the statistics.

Odds ratio (with the confidence interval) could also be computed for 2X2 categories such as gender (male, female) and (M-MLH, N-MLH) and other sets of 2X2 categories. Did you also check the sensitivity and the specificity of the 18-point diagnostic criteria proposed by Delavigne et al.?

REQUESTED REVISIONS:

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

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No
Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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