Reviewer's report

Title: Expression of CD80 and CD86 costimulatory molecules correlates with better survival in nasopharyngeal carcinoma

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Reviewer: kwok wai LO

Reviewer's report:

General

In this article, the authors aimed to elucidate the prognostic value of costimulation molecules, CD80 and CD86, in nasopharyngeal carcinoma. The study design is quite straightforward. A total of 50 NPC samples were examined for the expression of CD80, CD86, and several lymphocytes and dendritic cells markers by immunohistological staining. Although the authors concluded that CD80 and CD86 are biomarkers for better survival in NPC patients, the results presented in the manuscripts are not clear. The authors should improve the results and discussion section extensively.

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

(1). The staining patterns of CD80 and CD86 have not mentioned in the manuscript. It is not clear whether the antibodies stain cell membrane or nucleus. Do the score of “-ve” mean that the expression of these two markers were absent. The author should provide more information about the IHC scoring method for each marker. I also concern about whether the signal in the positive cases are varied. The expression level (weak or strong) should be considered in their interpretation. From fig. 2 (1B?) and fig. 4 (1D?), I noted that CD80/CD86 expression is not expressed in all tumor cells of the positive cases. The percentage of tumor cells with CD80/CD86 in each positive case should be determined. It is suggested that the authors should re-evaluate the IHC data by using a semi-quantitative method.

(2). Figures of HLA-DR expression in tumor cells should be shown.

(3). More discussion or data interpretation should be included in the “Results and discussion” section.

(4) It is noted that the T-cell and Dendritic cells markers was absent (-ve?) in >50% cases. Is the results suggested that there are no T-cell and dendritic cells infiltration in these tumors? Figures and scoring method for these markers should be provided. The number of field or area examined should be described.

(5) The association of CD80/CD86 expression and T-cell/Dendritic cells infiltration in the tumors should be examined.

(6) Are CD80 and CD86 expressed in the adjacent acnormal nasopharyngeal epithelia?

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

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests.