Reviewer’s report

Title: The expression of aldehyde dehydrogenase 1 (ALDH1) in ovarian carcinomas and its clinicopathological associations: a retrospective study

Version: 1 Date: 6 March 2015

Reviewer: Yoshihiko Hirohashi

Reviewer’s report:

Dear Authors,

In the study from authors Ruixia Huang et al. entitled ‘The expression of aldehyde dehydrogenase 1 (ALDH1) in ovarian carcinomas and its clinicopathological associations: a retrospective study’, the authors analyzed the expression of ALDH1 in ovarian carcinoma specimens and analyzed the association with clinicopathological status. Overall the study is well designed and the results is solid; however, the novelty of this study is limited to the information about ALDH1 expression in ovarian carcinoma stromas. Specific concerns are followings.

Specific points are:

1. In this study, high expression of ALDH1, a marker for cancer stem cells, was associated with better prognosis in ovarian carcinoma cases. Similar results was shown by Bin Chang et at. (Modern pathology 2009). On the other hand, studies about cancer stem cells isolated as ALDH1+ cells (Am J Pathol, 2012, 180, 1159-1169) describe that high expression of ALDH1 is related to poorer prognosis. Are ALDH1-positive cancer cells indicate cancer stem cells in this study? I would like to recommend to perform double staining using other cancer stem cell markers including CD133, CD44 etc.

2. ALDH1 staining in stroma is a interesting findings. The image picture in Figure 1 reveal that ALDH1 was stained broadly in stroma of ovarian carcinoma. Which types of stroma cell show positive staining for ALDH1? To answer this question, I would like to perform double staining using storomal cell markers including SMA, LCA (CD45), CD68 etc.

3. The authors used Allred scoreing system for evaluation of IHC. A rational explanation is needed why they take this method.

Yours sincerely,

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

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

Declaration of competing interests:

I declare that I have no competing interests.