Reviewer's report

Title: Nuclear Localization of beta-catenin is Associated with Poor Survival and Chemo-/Radioresistance in Human Cervical Squamous Cell Cancer

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Reviewer: Kazunori Nagasaka

Reviewer's report:

Major revision;

Major comments,

Hou et al. describe studies investigating that Nuclear Localization of beta-catenin is Associated with Poor Survival and Chemo-/Radioresistance in Human Cervical Squamous Cell Cancer (CSCC).

To best our knowledge, this is the first study that used immunohistochemical method to determine the expression of nuclear beta-catenin in CSCC population. They show that nuclear beta-catenin expression correlated with poor outcome in CSCC. On the whole the data is sound, but I have one critical comment.

The results are discussed extensively and in most part represent considerable novelty, however, generally it is better to reconfirm the data by using monoclonal antibodies (not polyclonal antibody) to evaluate the subcellular pattern in IHC as shown in previous publications.

Authors use polyclonal rabbit antibody of beta-catenin (Cell signaling tech), and as we know, this antibody recognizes the residues around Ser37. Also, GSK-3beta destabilizes beta-catenin by phosphorylating at Ser33/37/Thr41.

So, it is recommended to evaluate the distribution phosphorylation pattern of beta-catenin using the following antibodies; one was against C-terminal peptides of beta-catenin, enabling recognition of pan beta-catenin, and the other was against N-terminal-peptides, enabling recognition of non-phosphorylated beta-catenin, which is translocated into the nucleus.

The results from IHC data are very important and in part represent considerable novelty, but how was that measured---only a polyclonal antibody for staining nuclear beta-catenin is not very good.

Minor comments:

Page 4. line 11- ref is blank.
Page 5. line 10 from bottom- ref is blank.

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.

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