Reviewer’s report

Title: The kinetic profile and clinical implication of SCC-Ag in squamous cervical cancer patients undergoing radical hysterectomy using the Simoa assay: a prospective observational study

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Reviewer: Gian Franco Zannoni

Reviewer's report:

Title: The kinetic profile and clinical implication of SCC-Ag in squamous cervical cancer patients undergoing radical hysterectomy using Simoa assay: a prospective observational study
Manuscript Number: BCAN-D-19-02154

Reviewer's report:

General (reviewer's comment and opinion).

Authors firstly described the kinetic profile and clinicopathological implications of SCC-Ag before and after radical hysterectomy within six months' duration, in 92 cervical cancer patients prospectively enrolled, by a self-developed SCC-Ag Single Molecule Assay (Simoa) prototype immunoassay levels. In the second part of work, they looked at the relationship between SCC-Ag values and clinicopathologic features. Not surprisingly, the pre-treatment SCC-Ag level was related to tumor aggressiveness as indicated by advanced stage, deep stromal invasion and lymph node metastasis. A new finding was that patients with intermediate and high risk factors had higher SCC-Ag levels postoperatively while the difference became insignificant six months after surgery. Patients with positive lymph nodes before surgery showed sustained elevated levels of SCC-Ag compared to those negative counterparts. In contrast, although patients who received adjuvant therapy had raised baseline SCC-Ag level, no difference existed at completion of treatment. They also postulated that the absolute levels of SCC-Ag might be determined by the disease severity, while the dynamic change was possibly influenced by post-operative adjuvant treatment.

As declared by the Authors, the study has several limitations. Firstly, not all patients completed the five points' blood collection. Secondly, the sample size is not so large. Lastly, given the short-time follow up, no survival outcome was analyzed in the current work.

The text is well written and the work well conceived, with an accurate statistical analysis. Authors should better stress some important concepts in Discussion sections, avoiding repetitions. I retain that this article can be considered suitable for publication, after minor revision.
Minor Compulsory Revisions

- The clinical and scientific relevance of the paper is very important. Anyway, an accurate revision of the literature is necessary.

- Please, enrich references section.

- Please, add exclusion/inclusion criteria

- Check for English language in all the paper and improve text style and format

What next?: Minor changes I advise to do.
Quality of written English: Good
Level of interest: High
Declaration of competing interests: I declare that I have no competing interests.

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

Yes

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

Yes

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

Yes

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 recommend additional statistical review

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

Acceptable
Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

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