Reviewer’s report

Title: Differences in microRNA expression between melanoma and healthy adjacent skin

Version: 0 Date: 04 Aug 2018

Reviewer: Nooshin Bagherani

Reviewer's report:

Dear authors

I found your article very interesting. As comments:

1- Regarding the findings of the study, please change the title of your paper to a more generalized one.

2- In the "Abstract", the subsection "Method", please instead of "FFPE", use its complete term.

3- In the "Method", please mention criteria used by the pathologist for diagnosing melanoma.

4- Please write about the ethnical origin of your cases.

5- The section "Laser microdissection"; 10,000 cells is the sum of tumor cells and tumor element or 10,000 for every cell type. Please clarify it.

6- "Lase microdissection: What do you mean by tumor elements? Which part of tumor microenvironment was considered as tumor element? In addition, please explain how did you separate tumor cells from tumor elements. What was your criteria for separating them? In the section " MicroRNA expression…", the second paragraph, you have mentioned the difference between tumor cell and tumor microenvironment. Then, I understood you had to separate tumor cells from tumor elements (tumor microenvironment). Am I right? Please clarify these sections more.

7- How did you confirm exact isolation of tumor cells from non-tumor ones? Did you perform specific test or staining for confirming or you only trust microscopic view?

8- The section "RNA isolation"; the last line; what was your reference for 16.3?

9- The size of specimens was very small. How did you separate tumoral microenvironment from normal adjacent one? I think it could be better if you choose normal skin distant
from tumor site. In my concern, it is limitation of your study, because even in optimal situation, there is high probability of admixture of two mentioned microenvironments, particularly you hadn't have any special technique for separating them in an exact manner.

10- The section "TaqMan miRNA PCR", the second line; lever or level?

11- In the section "TaqMan miRNA PCR"; please explain your criteria for selection of mentioned miRNA for more investigation. Although, its criteria have been stated in the "Result, but I expect you to explain it in this section, too.

12- In the section" TaqMan miRNA PCR", the method of RNA isolation is different from that for microarray. Please explain its reason(s).

13- In the section "KEGG Pathway", what was your criteria for choosing miR146a-5p? Although, its criteria have been stated in the "Result, but I expect you to explain it in this section, too.

14- The section "MicroRNA expression in tumor …"; the first paragraph; …of them…..: please clarify it.

15- The "discussion"; the first paragraph, the 6th line; I didn't get the meaning of "…as initially the last …."; please clarify it.

16- Did the findings of the study show the association between the type of dysregulated miRNA and variables such as various types of melanoma, age of onset, etc?

17- In "Discussion", please compare the findings of your study with similar studies from different countries and talk about the priority of your study in comparison with other similar studies.

18- The figures have no good quality. Please revise them.

19- The legend of figures is not complete. Please write in more details.

**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:

Needs some language corrections before being published

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