Reviewer’s report

Title: Salivary extracellular vesicle-associated miRNAs as potential biomarkers in oral squamous cell carcinoma.

Version: 0 Date: 21 Jul 2017

Reviewer: Cathie Garnis

Reviewer's report:

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In this paper this group looks at the microRNA expression signatures, using qRTPCR panels of ~700 microRNAs, in 5 controls and 5 cancer patients. Top candidate microRNAs are selected and validated by individual qRTPCR and some statistical analysis is done to show sensitivity and specificity of some of the candidates.

microRNAs in extracellular vesicles as biomarkers is not a new concept and has been shown to be useful as a biomarker in many biological fluids. While it has not been shown specifically in saliva it is not a surprise that the microRNA signatures would be different in control vs cancer patients. That said the sample sizes here are much too small to make ANY conclusions regarding sensitivity or specificity. At best this paper could conclude that there are likely microRNA differences in saliva of head and neck cancer patients compared to controls that could be used as biomarker - this is not novel.

Specific Comments/questions:

Demographics Table should be included - how well were the controls and cancer samples matched?

How was the quality of RNA determined? This cannot be done on a nanodrop as stated.

MicroRNA expression was assessed by qRTPCR not microarray as stated in the methods. How were the microRNA candidates identified? Was multiple test correction done? I would be surprised if significance was achieved with such a small data set (5 cancer and 5 controls). All of this data should be made publicly available.

Western blot of EVs should be shown for all cases.
Pathway analysis is a stretch and does not add much to this paper with respect to biomarker identification.

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

No

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.

No

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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