Reviewer's report

Title: Expression and role of oncogenic miRNA-224 in esophageal squamous cell carcinoma

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Reviewer: tony E. Godfrey

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Major revisions.

1. It is unfortunate that the qPCR primer sequences are not available. Since this paper focuses entirely on expression of miR-224 these sequences are critical to the study. Not including them in the manuscript negates the ability of other researchers to independently validate the data in full. Furthermore, many miRNA's differ from each other by only a few bases. Specificity of the assays is a major concern (particularly with SYBR Green detection) and this cannot be evaluated without the primer sequences being provided. Indeed, even the authors themselves do not know for sure what they are detecting in the study.

2. The statement "The current study demonstrated that miR-224 acts as an oncogenic miRNA in ESCC by targeting PHLPP1 and PHLPP2" is still an overinterpretation of the data. The data supports that mir 224 is oncogenic and that it targets these genes but it does NOT demonstrate that the oncogenic activity is driven by PHLPP1 and 2. A more accurate statement would be, "The current study demonstrated that miR-224 acts as an oncogenic miRNA in ESCC, possibly by targeting PHLPP1 and PHLPP2.

Minor.

1. Thank you for clarifying qRT-PCR data presentation and analysis. I still believe however that figure 1A is very hard to interpret. I suggest that the authors consider re-plotting this using actual expression data but with a log scale on the Y-axis. Statistical analyses can still be performed and reported on transformed data but the figure will be easier to interpret this way.

2. I believe that the use of the term Pathologic Grade (instead of pathologic stage) throughout the manuscript, tables and figures would help clarify the difference between the pathologic TNM and Pathologic Stage analyses. Pathologic stage is equivalent to overall stage based on TNM, hence my original confusion. Also, in tables and figures pathologic grade should be listed as GI, GII etc as additional clarification.

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

Quality of written English: Needs some language corrections before being published
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.