Reviewer’s report

Title: Detection of varicella-zoster virus from cerebrospinal fluid using advanced fragment analysis in a child with encephalitis: A case report

Version: 1 Date: 22 Mar 2019

Reviewer: Daniel Depledge

Reviewer's report:

The authors have written a case report on the detection of VZV in the CSF of a 10-year old child diagnosed with encephalitis. The authors utilize advanced fragment analysis (AFA) to perform a rapid screen for 18 distinct pathogens, observing a strong positive signal for VZV. At face value, their conclusion that AFA offers a useful technique for discriminating diagnosis of viral encephalitis is appropriate.

Specific comments:

1- The style of writing is a little unusual and is littered with small mistakes in grammar etc. While this is not a major issue, some editing would be prudent prior to publication.

2- While the signal indicating the presence of VZV is clear and strong - it is noticeable that there is a small bump around 200nt which could suggest some level of HSV-1 being present. While it is still most likely that VZV is causing encephalitis here, the authors should either note the possibility that HSV may be contributing or else explain why they are not considering it. If it is below a specific threshold then the authors need to explain how this is established.

3- The data in figure 2B are representative of 1 / 3 experiments with similar results observed in the others. I don't see any reason why the data from the other experiments cannot simply be overlaid on these plots?

4- The authors should include the primer sequences used for the VZV RT-qPCR approach.

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.

Not relevant to this manuscript

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

Needs some language corrections before being published

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