Reviewer’s report

Title: MR Imaging Features of Orbital Langerhans Cell Histiocytosis

Version: 2 Date: 14 Jun 2019

Reviewer: Anton Lennikov

Reviewer's report:

Manuscript BOPH-D-19-00089R2, "MR Imaging Features of Orbital Langerhans Cell Histiocytosis" by Wu et al. have significantly improved in terms of clarity and presentation. Authors appropriately conducted additional experiments and figures. However, the manuscript still require additional English proofreading to improve the readership experience; authors advised using different scientific editing/proofreading service than AJE. Also, materials and methods and results for immunohistochemistry data are not present in the manuscript text.

Comments:
1. Good IHC data, authors may consider enlarging portions of the images to emphasize the macrophages phagocytosis of hemosiderin, but overall, I am satisfied with the new figure. Authors must include materials and methods for their IHC process and refer to Figure 5 in the results portion of the manuscript. I understand that authors primary focus is MRI, but histology is contributing to authors specificity in diagnosis that it is Langerhans Cell Histiocytosis. In this version of the manuscript, the figure is only referred in the discussion. Please add the section in the results section of the manuscript that describes histological findings of the study. In the materials and methods, please specify the antibodies sources and dilutions used.

2. Is figure 7 represents the CT 3D scans of the individuals presented in Figure 6? If so, I suggest merging it into a single figure and clarify this in the text. If the photographs and CT scans are unrelated its also useful to clarify it in the figure legend using words such as "representative photographs" and "representative CT scan."

3. Add arrows to Figure 7, while in figure 7B, the bone erosion is visible; in Figure 7a, it might take a moment for non-specialist to understand what features authors are referring to. Otherwise, it is a good addition to the manuscript narrative and scientific value as some clinicians may only have CT scan on hands.

Suggestions
1. I understand that microscope software that authors use has its limitation providing the scale-bar data; authors encouraged to purchase the product similar to https://www.tedpella.com/calibration_html/Light-Microscopy-Calibration-Standards.htm and take images of the physical scale at the same magnification as the samples. If such products are not available, authors can use hemocytometer grid, which is 250 um squares in the corner quadrants. Taking the image of the grid at the same magnification as H&E and IHC images will allow authors to produce the scale. Authors can use any imaging software to determine size of the 250 um in pixels and then recalculating number of pixels for any desired scale. i.e. 250 um
pixel number/5=50 um in pixels for the given magnification. This is not mandatory for this project, but certainly something authors might to consider for their future work.

**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

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

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal