Reviewer’s report

Title: Myocardial Oedema in an 8-year-old Chinese Boy with Idiopathic Systemic Capillary Leak Syndrome

Version: 1 Date: 03 Aug 2018

Reviewer: Steve Leung

Reviewer's report:

The authors present an interesting case of systemic capillary leak syndrome. The authors states that this is the first pediatric case to demonstrate myocardial edema requiring ECMO support. The case presentation describes the typical presentation of an SCLS patient. However I have the following concerns/recommendations:

This case presentation of the myocardial edema would be strengthened if the authors can provide 2D echo images (with measurements) of the thickened myocardium, and post-event normalization for both presentations.

Providing the myocardial mass may be appropriate, as the chamber size can change, which can change the wall thickness of the myocardium (i.e. smaller chamber size, can have thicker walls with the same myocardial mass. Thus the thickness is not related to edema, but due to a change in myocardial mass distribution).

Was there blood culture results for the 2nd presentation?

Figure 2 (echo image) measurements appear to be incorrect as the IVS measurement crosses into the RV.

Systolic function should be given as an ejection fraction based on at least a biplane measurement, rather just state "poor systolic function”.

Would recommend providing a normal range of lab values for IgG from which this assay was used to measure.

Regarding some of the hospitalization description, it would be good to state hospital day when certain events occurred. This may be described in the figure, but I was unable to read the text or numbers on the figure (blurred). Please include laboratory units.
DISCUSSION:

3rd paragraph 3rd sentence, would change "first known case of ISCLS" to "first reported case of ISCLS".

Cardiac Involvement section:

3rd sentence: please provide your diastolic function data to support the reported "impaired ventricular filling" (e.g. E, A, e' etc).

Last paragraph of Acute Treatment:

Compartment syndrome can occur in the arms. May generalize "peroneal nerve damage" to just "nerve damage"

Second to last paragraph in Prophylactic treatment:

Would correct the duration of symptom free... this states ten months, whereas the last sentence in the case presentation states 12 months.

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

Unable to assess

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Unable to assess

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:

Acceptable

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