Reviewer’s report

Title: Case report of severe myocarditis in an immunocompromised child with Respiratory Syncytial Virus infection

Version: 0 Date: 04 May 2017

Reviewer: Imad Kassis

Reviewer’s report:

BMC Pediatrics,

I was asked to review an article titled:

"Case report of severe myocarditis in an immunocompromised child with Respiratory Syncytial Virus infection"
Manuscript Number: BPED-D-17-00037
Article Type: Case report

Here are my comments

1

The main draw back in the article is the absence of a tissue sample (heart muscle biopsy) that confirms the causal relationship between RSV respiratory infection and viremia. Many reasons may affect myocardial performance in a child with leukemia on chemotherapy and it is not always possible to know exactly the co-effect of each reason. I am aware as a pediatrician that such an intervention is rarely performed in most cases of pediatric myocarditis especially when the child improves, so the prerequisite of tissue diagnosis is rarely available.

I suggest that this point be clarified and discussed in the "discussion section".

2

Abstract: in the background it is stated "It is well known that RSV is associated with extra pulmonary complications such as myocardial involvement. …there has been no known cases of RSV associated myocarditis.

I think this sentence does not reflect the situation. I think this sentence should be reformed stressing that RSV infection is common and may be severe among patients with preexisting cardiac anomalies, but direct involvement is not common and as the article states it jabs not well been described among immune compromised children.
In the conclusion sentence may "cause" as I stated causality was not proofed by biopsy and staining so better to say associated as written in the background paragraph.

4 again background Line 4 are at high risk for RSV infection. This is true for all infants and children. Children with leukemia may be at high risk for more severe and complicated RSV infection than previously healthy children without risk factors.

4

Case presentation

Tei index may not be clear to many pediatritians who may be target readers, better to clarify.

5

case presentation page 2

"Continuous hemofiltration" is this what we call ECMO or CVVH? Not sure should be clarified

Thanks a lot for referring the case report form for review

**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.

No

**Are the conclusions drawn adequately supported by the data shown?**
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