Reviewer’s report

Title: An unusual case of infective pneumocephalus: case report of pneumocephalus exacerbated by continuous positive airway pressure

Version: 0 Date: 31 Oct 2017

Reviewer: Mats Lindberg

Reviewer's report:

The case is very interesting and figure 1 summarizes the case very well!!!

You describe a very atypical CNS-infection and it seems likely that use of CPAP has contributed to the pathogenesis. I think you should focus on this possible correlation.

The text is not easy to read. There are several linguistic inconsistencies. For instance: In the first part of the abstract, you say non-traumatic hydrocephalus "remain highly uncommon", but in the next sentence, you say there "remain many case reports". If the clinical condition is so uncommon, how come there are so many case reports? And why do you use the word "remain" twice?

I suggest you rewrite all parts of the case story, making it more focused and clear.

You emphasize the (possible?) sinus wall osteomyelitis, but from the case report, it is not evident how this diagnosis was confirmed. As I told you before, I find the serious CNS-infection a lot more interesting than the (possible") cranial osteomyelitis.

It is not adequate to describe the patients serious CNS-symptoms (dramatic decline in consciousness, GCS 10 etc.) as "non-specific systemic symptoms" as you do in the abstract.
You write "The growth of s. salivarius, correlated with a diagnosis of sinusitis eroding back into the cranial vault". How was the sinusitis diagnosed? From what sample did S. Salivarius grow, as you say CSF- and blood cultures were negative.

This very a interesting case story deserves a much better "package". I hope you will work on it!

**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.

No

**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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