Reviewer’s report

Title: A Systematic Review of Cases of Meningitis in the Absence of Cerebrospinal Fluid Pleocytosis on Lumbar Puncture

Version: 4 Date: 20 Feb 2019

Reviewer: Christian Brandt

Reviewer's report:

Concerning review of Your manuscript number INFD-D-18-0778R4

The idea behind this study is still interesting.

The authors could in the conclusion focus on the need of additional biochemistry to identify the real cases meaning that patients with meningitis in the absence of pleocytosis may not present with completely normal CSF biochemistry i.e. protein may be suspiciously elevated, glucose lowered (or even a lowered glucose ratio) and lactate increased.

If the clinical suspicion is strong - microscopy is mandatory in bacterial meningitis and in suspected encephalitis viral PCR is mandatory.

Abstract:
No comments.

Background:
No comments

Methods:
The methods section is easily readable. I will have to understand why scientific reports from Erdem et al. in Infectious Disease journal (Central nervous system infections in the absence of cerebrospinal fluid pleocytosis) or Ki Wook Yun (on enteroviral meningitis published in BMJ) was most likely not included?

Results:
The demographic table 1. Make little sense in the present form. Suggest presenting demographics with respect to age group and then on the "y axis": Comorbidity, Clinical findings (GCS, seizures, fever, pulse - if any thing is available from the included manuscripts)
The additional data presenting all CSF biochemical data retrieved from the included manuscripts - could the authors in the results section report on the no. of patients where all CSF biochemistry including CSF glucose or glucose ratio and CSF protein is normal?

Suggest also to comment on this in the discussion since a significant bias would originate from such patients since the majority of clinicians would accept a completely normal CSF to document absence of any CNS disease except for among patients with known immunodeficiencies.

References:
Ref. 6 Is a duplicate of ref. 3.

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:

Acceptable
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