Reviewer's report

Title: Respiratory virus in immunocompetent community-acquired pneumonia: is it real pathogen or a bystander? Comparing to influenza like illness and healthy volunteers

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Reviewer: Ger Rijkers

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With interest I have studied the manuscript by Zhan et al. which deals with an important issue, namely the involvement of viral infection in community acquired pneumonia. The single, most prevalent cause of community acquired pneumonia is an infection with Streptococcus pneumoniae. When, next to conventional microbiological methods, serotype specific serology is included in making the diagnosis, over 50% of CAP patients appear to be infected with S. pneumoniae (van Mens et al., 2011). The current model is that a viral respiratory infection can cause damage to lung tissue to a degree that would favor subsequent infection with e.g. S. pneumoniae. There are many arguments that most of the victims of the 1914 Spanish flu pandemic in fact were caused by S. pneumoniae superinfection. (Klugman, Chien and Madhi, 2009: Pneumococcal pneumonia and influenza: A deadly combination, Vaccine, 27, S3, C9-C14).

Major Compulsory Revisions

Authors did perform bacterial cultures because in 6 cases either a pure bacterial or mixed viral/bacterial infection was reported. There is however no mentioning of S. pneumoniae, as indicated above, the number one cause of CAP. The bacteriology therefore should include cultures for S. pneumoniae (preferably with serotyping), urine analysis for S. pneumoniae and serotype specific antibodies in the paired serum samples.

The manuscript indicates that all patients were treated with antibiotics. Therefore additional clinical data should be provided (length of hospital stay, intensive care requirement, survival) comparing the patients with a "true" pure viral infection as compared with those with bacterial CAP.

Minor essential revisions: these will be correction of grammar and spelling. For instance: During April and december of 2009. I assume the authors mean: Between April and December (and not those 2 months only).

With regard to the Volunteers control group: I assume these are healthy adults, but then there is substantial comorbidity, in particular COPD and cardio/cerebrovascular.

A minor point is that the study was performed in 2009. Why did it take so long to submit this manuscript?
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests