Reviewer's report

Title: A case of allergic bronchopulmonary aspergillosis successfully treated with mepolizumab

Version: 1 Date: 17 Jan 2018

Reviewer: Lokesh Guglani

Reviewer's report:

The authors have provided an interesting report, but there are key details that are missing from this manuscript. Some points that need to be addressed are listed below:

1) Abstract, Line 13 - Replace the word "induces" with "causes"

2) It is not clear from this case report as to when this patient was first diagnosed with asthma. Please specify, as it will be helpful to specify the chronology of events.

3) Abstract, Line 25 - The authors report recurrence but do not specify if it was recurrence of which symptoms.

4) Abstract, Line 33 - This sentence is confusing - was this patient receiving itraconazole for 3 years?

5) In 2017, prior to her "deterioration", was there any history of travel to areas where other fungal organisms are endemic? Was there any history of specific environmental exposures that could have induced specific hypersensitivity?

6) Case Presentation, Line 36 - The patient presented first with a history of fever for 2 weeks - this is quite unusual for ABPA. One other condition that comes to mind that can occur in patients with asthma and cause a similar presentation with prolonged fever is Acute Eosinophilic Pneumonia. Did the authors ever consider this in the differential diagnosis for this patient? The treatment for eosinophilic pneumonia is also steroids and most patients show rapid improvement in their symptoms, pulmonary infiltrates and mucoid impaction after steroid therapy.

7) Case Presentation, Line 39 - The authors have called her asthma as "Severe", but have not provided adequate details about her asthma history. When was she first diagnosed? What was
her baseline lung function? What asthma specific therapies was she receiving prior to her presentation?

8) Page 6, Line 3 - Bronchoscopy was done for this patient but the authors have provided minimal details of the procedure and the results. What was the result of the BAL cultures? Did she grow Aspergillus on BAL fungal cultures? Which lobe/lung segment was the BAL performed in?

9) Page 6, Line 10 - Before discussing the diagnosis of ABPA, the authors need to add a list of differential diagnoses for this patient here. What are the points against this being labeled as recurrence of eosinophilic pneumonia?

10) Page 6, Line 39 - For the acute "deterioration" in 2017, the authors have provided very limited information about her presenting symptoms. Was there a recurrence of fever at this time? What other symptoms did she have at that time?

11) Page 8, Line 23, Discussion Section - Please discuss the role of Interleukin-5 (IL-5) specifically in the pathogenesis of ABPA. There are multiple reports that implicate Th2 cytokines (IL-4, IL-5 and IL-13) in the pathogenesis of ABPA.

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.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
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No

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