Reviewer's report

Title: Galactomannan testing of bronchoalveolar lavage fluid is highly reliable for diagnosis of invasive pulmonary aspergillosis in hematology patients

Version: 2 Date: 25 September 2009

Reviewer: Maria Yasuda

Reviewer's report:

1. Is the question posed by the authors well defined?
Yes, they tried to determine an optimal BAL galactomannan cutoff for invasive pulmonary aspergillosis.

2. Are the methods appropriate and well described?
Did they include other fungi like histoplasmosis or systemic endemic fungal diseases, some of them described as cause of false positive galactomannan test?

Could the authors inform the diagnoses of the control group number 2 (subjects with non hematological diseases without any form of aspergillosis)?

3. Are the data sound?
a. On page 6, the authors did not indicate the results (galactomannan, culture, antifungal therapy, period for CT changes to bronchoscopy) in probable invasive aspergillosis and IPA. Please inform the data for each form and indicate the median for each form in the Figure 1 A. Why authors did not include

b. Authors said that in control group (page 7 line 7) that none had BAL galactomannan OD indices > 0.5. However on line 11 they said: Fourteen (26.9&% control subjects had BAL galactomannan OD indices # 0.5. Please clarify

c. Line 17: Subjects in control group 2 tended to have higher BAL galactomannan OD indices compared to control group p1 subjects. Even though there is no significant difference between these two control groups it is easier to show this difference indicating the median of each group in Figure 1 A. Please indicate in the text

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
The data are interesting but there is a high percentage of probable/confirmed cases in relationship to not confirmed cases. It is possible that the type of control groups could explain these data. Could the authors indicate what happened with patients who met EORTC/MTG criteria for possible IFD without other confirmatory pulmonary diagnoses? Are there any patient with confirmed aspergillosis later diagnosed by necropsy or other methods in this group of patients? I think the cutoff of these patients could be important to define the level
proposed by the authors.

I understand that the authors did not include this group in this study but how many cases fill this criteria and what happened in the evolution concerning the diagnosis of aspergillosis.

5. Are the discussion and conclusions well balanced and adequately supported by the data?

The authors could discuss the difference between their study and other studies with different conclusions concerning the the value proposed for cutoff. Did they considered the group of possible aspergillosis for whom a lower value of cutoff could help to reach the diagnosis?

6. Are limitations of the work clearly stated?

Please consider questions 4 and 5.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Yes

8. Do the title and abstract accurately convey what has been found?

I need to know the answers for the questions to indicate my opinion about the title but I think they did not include some controls usually responsible for false positive results.

9. Is the writing acceptable? One possible suggestion is: Glactomannan testing of bronchoalveolar lavage fluid is useful for diagnosis of invasive pulmonary aspergillosis in hematology patients.

Yes with major compulsory revisions, improving the information about the methods or even including a group of possible aspergillosis with their respective data.

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