Reviewer's report

Title: Phenotypic characteristics of isolates of A. fumigatus from different geographic origins and their relationships with genotypic characteristics

Version: 1 Date: 13 December 2010

Reviewer: Maria Yasuda

Reviewer's report:

General comments

The authors propose to describe phenotypic characteristics of 55 samples of Aspergillus fumigatus isolated from different countries of Latin America to find association between the phenotypic characteristics and the geographic origin, as well as to determine the relationship between phenotypic and genotypic characteristics.

Title and abstract

The title and abstract convey what has been observed by the authors.

Methods

The authors inform the clinical source of most of the isolates. Are they from the from biological samples, from patients with probable, possible or proved aspergillosis? Which types of samples? (sputum, BAL, cerebrospinal fluid?).

What are the inclusion criteria to consider the isolate as Aspergillus fumigatus. The authors should include here the information about the growth of isolates at 480°C only informed in the discussion 2nd paragraph – top page 13)

? Did the authors perform genetic identification of the isolates?

The authors did not describe the genotypic methods (just cited in the introduction).

Results

Antifungal sensitivity

First paragraph – 4th line: …No isolates were resistant to AMB and VCA only to ITZ.

Did the patients with ITZ resistant isolates received itraconazol or other azoles previously?

Are these isolates from severe patients with aspergillosis? Which is the biological source of these isolates. …

Comparative data between genotypic and phenotypic results of each sample were not shown to allow any comparison with the phenotypic data, so it is not
possible to discuss the conclusions about this comparison. The findings in different countries are briefly cited in the end of the second paragraph of the discussion;

Discussion

Only four samples were analysed from Peru. Are they representative of this country? Please comment if biological source of this samples and the limitation of this analysis.

In general, the discussion did not point the limitation of the methods and did not discuss possible application of other molecular methods to analyse all the samples and those with resistance to ITZ page 13 – last paragraph of Discussion).

Conclusion

The conclusion should point the limitation of the work, type and size of the sample of PERU and FRENCH

Minor comments:

A. fumigates (Results: End of Paragraph - Thermotolerance)

aspergillus heads – is this the correct spelling for Aspergillus? (latin name, gender..)

Level of interest: An article whose findings are important to those with closely related research interests

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

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests