Reviewer’s report

Title: The epidemiology, antifungal use and risk factors of death in elderly patients with candidemia: a multicentre retrospective study

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Reviewer: Roberto Luzzati

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MAJOR COMPULSORY REVISIONS

The aim of this retrospective study is quite interesting. It’s well defined in the text but not in the abstract of the manuscript (please, see BACKGROUND).

The methods of the present study should include some more information. 1. Definition of the clinical condition of patients at the onset of candidemia: infection? sepsis or what else? I suggest sepsis definition according to this ref: Annane D, Bellissant E, Cavaillon JM. Septic shock. (2005) Lancet 365:63-78.

2. the definition of severe hypoalbuminemia is lacking in the methods.

3. concurrent infections: do you mean bloodstream infections? please, this should be specify.

4. Data on antifungal administration < 2 weeks before the microbiological documentation of candidemia are accurately reported in table 2. However, regarding the outcome of candidemia the potential role of empirical antifungal therapy could be different from that of antifungal prophylactic therapy. As a consequence, the analysis of risk factors for death (table 4) must include separate data regarding antifungal agents given as empirical treatment and prophylaxis. To my opinion, this is crucial in order to understand the role of such different antifungal regimens in the outcome of candidemia episodes. This issue should be discussed in the discussion section of the manuscript.

5. The antifungal susceptibility testing is reported in the methods but such results are incompletely shown in the result section (data regarding antifungal resistance of the major Candida non-albicans species are missing). These data should be reported and compared between young and elderly patients in a new table.

6. Among predisposing factors of candidemia, the placement of CVC is reported in table 1 but data regarding CVC-associated candidemia are not available. Removal of CVC is a well-known and very important measure for the management of candidemia. These data should be reported and included in the analysis of risk factors for death. On the contrary, this issue must be added among the limitations of the study.

7. The discussion and conclusions must be reconsidered according to the previous issues. In particular, current results regarding risk factor analysis do not allow to state that ‘the antifungal therapy should be early implemented before microbiological documentation’ in this patient population.
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' below