Reviewer's report

Title: Profile of infective endocarditis observed over a 7-year period in a single centre in Italy

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Reviewer: Katsuomi Iwakura

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The authors reported a contemporary clinical profile of infective endocarditis (IE) in 166 patients (189 episodes) admitted to their hospital for 7 years as a retrospective cohort study. Though the present study had limitation and a possible bias as a single center study, the large scale data itself has a large clinical value.

Major Compulsory Revisions

1) The authors followed the changes in the number of admission due to IE through the study period, and concluded that the incidence of IE showed a non-linear increase. The present study was not a population-study, and the incidence of IE admission to a single center does not always have epidemiological importance. Its changes might reflect real increase in IE in the population but also might be just a coincidence. Moreover, trend of IE admission in Figure 1 does not seem to support the authors’ conclusion of non-linear increase (p value was just 0.067).

2) Echocardiography was not performed in 8% of the study patients (page 7, paragraph 3). How was IE diagnosed in these patients? Did most of them have all 5 minor criteria of Duke definition, or IE had been already diagnosed in other institutes? Why even TTE was not performed in these patients?

Among patients undergoing echocardiography examination, 25% of them had a dehiscence (of prosthesis/ring) or new paravalvular regurgitation. The authors should clearly describe the number of PVE among patients receiving echocardiography examination (which would be 71 cases, right?) , and the incidence of dehiscence/paravalvular leakage among them.

3) “Relapse” and “reinfection” were clearly and separately defined in the method, but they were treated as one category in Results section (page 7, paragraph 2). How many cases were defined as relapse, or as reinfection?

4) Was there an annual change in the bacterium observed in blood culture during the study period?

5) Most of the study patients were admitted to investigate fever of unknown origin (FUO). Demonstrate how many patients with FUO were admitted to the authors’ hospital during the study period, and how many of them were diagnosed with IE.

6) Page 9 Paragraph 4 (the first paragraph of Discussion): “However, it is notable that about 30% of ~ were admitted to investigate fever of unknown origin”. These
sentences contained important information about clinical background, and they should be described in the first part of Results, not in Discussion section. These information was described in Table 1, but it should be clearly described in the text if they were considered to be important.

7) Table 1 is too large to grasp its content at a glance. I think “predisposition conditions” should be demonstrated in a separate table. I hope Table 2 could be demonstrated as a pie chart, if possible.

8) Authors should read the author information carefully before submission and make the manuscript to have a proper format. The present manuscript lacks pagination (I used page numbers beginning the title page for the review above). References and Figure Legend should be printed on separate pages, and each table should be printed on a separate page. Some sentences in the present manuscript were hard to understand due to poor English writing. Full rewrite of the manuscript and proofreading by a native English speaker is highly recommended.

Level of interest: An article of limited interest

Quality of written English: Not suitable for publication unless extensively edited

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.