Reviewer’s report

Title: Long-term outcome of infective endocarditis: a study on patients treated in a Finnish teaching hospital during 25 years

Version: 1 Date: 8 October 2007

Reviewer: Maurizio Cotrufo

Reviewer’s report:

General

The Authors reported on their experience over 25 years of treatment of infective endocarditis in a tertiary care center. The peculiar trait of the study relies in its mixed composition, including both medically and surgically treated patients. They had a sufficient number of patients to possibly draw conclusions on the issue of the management of this epidemiologically important disease. The main flaws of the paper reside in the exposition of early and late mortality data, that somehow lacks of clarity.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1) Since the paper is centred on early and late mortality rates and predictors, it should have been more detailed in reporting: how many patients were surgically treated; importantly, what criteria were adopted to chose between medical and surgical treatment at first hospitalization; what were the causes of death both in the hospital and in the long.-term follow-up. In particular, the number of patients dying during first hospital admission was not disclosed anywhere in the article.

2) They had quite a high in-hospital mortality (>20%): it should have been better analysed to depict the causes of medical treatment failure and surgical drawbacks. Since their multivariate analysis found early surgical treatment as an independent protective factor for mortality in the follow-up, it is important to know the respective rates of hospital death among medically versus surgically treated patients. In this perspective, the comparison between overall population and in-hospital survivors does not convey any clinically or scientifically useful message and instead contributes to the overall cloudiness of the paper.

3) how was the post-operative mortality in their experience? Was it conditioned by the timing of intervention? In other words, beside being a predictor of long-term survival, was early surgery also associated with better hospital outcome or not?

4) of primary importance: the number of patients dying in their follow-up and the causes of death (at least distinguishing between cardiac and non cardiac causes) shold be mentioned. The reader cannot ponder the power of multivariate predictor analysis without this information. Was there an evident difference in
terms of causes of death between early and late follow-up deaths?

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1) Follow-up completeness should be reported.
2) Tables 1 and 2 are quite busy with data and may confound the reader rather than provide relevant information.
3) Figure 1 is not graphically correct. In fact, it is obvious that eliminating hospital deaths a parallel curve is obtained (i.e. the difference with the overall curve is constant at any time point). Only the overall population curve should be displayed.

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Discretionary Revisions (which the author can choose to ignore)

Level of interest : medium
Quality of written English: acceptable
Statistical review: statistical analysis was generally acceptable and did not need important revision

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Quality of written English: Acceptable

Declaration of competing interests:

I declare that I have no competing interests.