Reviewer’s report

Title: Association of plasma macrophage colony-stimulating factor with cardiovascular morbidity and all-cause mortality in chronic hemodialysis patients

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Reviewer: Xuesen Cao

Reviewer's report:

Comments

The authors investigated the relationship between plasma M-CSF and cardiovascular events and all-cause mortality in hemodialysis patients using a prospective cohort. But several problems needed to be addressed.

1. Given the effect of timing of blood sampling on the measurements, mid-week dialysis session may be optimal compared to other dialysis sessions.

2. In Abstract and Methods section, the author indicated that 52 hemodialysis patients were recruited, while in Results→Baseline characteristics of study population, "Among the 54 patients with HD, 29 were male and 24 were female, …", which 54 hemodialysis participated the study. But I noticed that "29 + 24" should be 53. So how many patients were recruited?

3. In Table 3 multivariate logistic regression model, age and systolic blood pressure were adjusted. In my opinion, the confounding risk factors for cardiovascular events, such as sex, age, hemoglobin, comorbidities and so on, should be adjusted too. And given the prospective cohort study, Cox proportional hazard model should be used to identify the risk factors for cardiovascular events in this population.

4. To find the risk factors for all-cause mortality, the authors used Cox regression model, but the number of death was only 8. The authors found a cut-off value of M-CSF using ROC, then categorized patients into two groups according to the cut-off value. Please showed the number of patients at risk in two groups.

Please confirm that you have included your review in the ‘Comments to Author’ box?
As a minimum standard, please include a few sentences that outline what you think are the authors’ hypothesis/objectives, their main results, and the conclusions drawn. Your report should constructively instruct authors on how they can strengthen their paper to the point where it may be acceptable for publication, or provide detailed reasons as to why the manuscript does not
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**Are the methods appropriate and well described to allow independent reproduction of experiments?**
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- Are the statistical test(s) used in this study appropriate and well described?
- Is the exact sample size (n) reported for each experimental group/condition (as a number, not a range)?
- Are the description of any error bars and probability values appropriate?
- Are all error bars defined in the corresponding figure legends?
- Has a sample size calculation been included, or a description and rationale about how sample sizes were chosen?

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