Reviewer's report

Title: Serum IL8 is not associated with cardiovascular events but with all-cause mortality

Version: 0 Date: 06 Dec 2018

Reviewer: Barbara Wizner

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To the study was included 4011 men and women aged 60 years old with the available baseline serum IL8. The quartiles of IL8 distribution have been linked with incident cardiovascular events (CVE) and all-cause mortality, cardiovascular mortality and cancer which have been occurred within 16.5 years of follow up. Based on the performed analyses Authors conclude, that elevated IL8 levels were not associated with CVE risk as well as cardiovascular or cancer mortality but were related only with an increased risk of all-cause mortality.

The study rationales, design and methods were well described.

My main remarks concern the presentation of the results.

1. Intra-assay variability of IL8 was a quite large (5.8%) whereas the intra-assay variability was much smaller. How can you explain this?

2. In Table 1 (results section) the data were presented to a limited extend. I would like to see more details, eg. besides numbers, percentage distribution of quantitative data in IL8 quartiles and statistical details of the comparative analyses. The Authors only very shortly summarized that "participants who were current smokers, had the largest daily alcohol consumption, had a history of diabetes and had a central obesity were more likely to have high IL8 levels". Are statistical significance were observed?

What measure of the SBP/DBP, cholesterol (total?), alcohol, LDL and glucose dispersion are given in brackets (range, IQR)?

I would exclude presentation of SBP/DBP data from the part devoted to the presentation of anthropometric data (Table 1).

3. The presented analyses included the traditional cardiovascular risk factors. Did the authors try to establish the potential confounding effect of other non-classical risk factors related to atherogenesis?
4. Did you try to analyze the IL8 as a continuous variable trying to establish the cut-off values linked with higher risk of all-cause mortality, as well CV and cancer in older people?

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable
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