Reviewer's report

Title: Relationship between estimated glomerular filtration rate, albuminuria, and oxidant status in the Japanese population

Version: 2 Date: 6 May 2013

Reviewer: Toshiki Fukui

Reviewer's report:

To editors,
In advance, I appreciate your kind invitation to review a paper in your journal.

This paper shows the relationship between oxidative stress by using d-ROMs and BAP and renal function estimated by eGFR and urinary albumin excretion rate (UAER) in a large numbers of healthy Japanese subjects.

Results show a significant correlation between UAER and d-ROMs or BAP also shows a weak significant correlation between eGFR and d-ROMs or BAP.

These results are considered to be worth evaluation in the view of point that they mentions the relationship between not only an oxidant states also antioxidant capacity at the same time and kidney dysfunction.

Major Revisions
However, these results were necessary to several modifications.

First of all, results are should be shown in graph figures. They are difficult to understand only by the odds ratios or text of the article. It should be prepared and graph of direct correlation. It is hard to understand what you mean by the term only, for example, low and high eGFR.

Second, many paper shows a positive correlation between (hs-)CRP and d-ROMs.

It is well known low grade of inflammation is associated with oxidative stress.
Only highest quartile dROMs only shows the positive relationship also may be a high (hs)CRP in kidney dysfunction.

Current smoker is a positive factor for odds ratio in this study may also due to a high (hs)CRP. Therefore, (hs-)CRP is thought to be an essential parameter in this investigation.

Third, authors referred the paper (ref. 12). Therefore, it is favorable to access the direct relationship between serum creatine and d-ROMs and BAP.

These results are should be indicate in graph figures, not in the numbers in sentence or tables or odds ratios.

Fourth, authors referred the several different results about renal function and oxidative stress. Therefore, if possible, other oxidative stress markers are examined in simultaneously.
Minor Revisions

Page 15 Is low eGFR is May high eGFR?

It is little difficult only by the sentence or odds ratio.

In this point of view, please add the graph figures about the direct relationship between the factors of renal function and d-ROMs and BAP.

Some reference papers are follows,

1) Hirose H et al. Relationship between serum reactive oxygen metabolites (ROMs) and various inflammatory and metabolic parameters, J Atheroscler Thromb 2009; 16: 77-82.(ref.15)


3) Fukui T et al. Significance of measuring oxidative stress in lifestyle-related diseases from view point of correlation between d-ROMs and BAP in Japanese subjects, Hypertens Res. 2011; 34: 1041-1045.(ref.12)

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I strongly recommend to response my request and you will submit this paper in this journal.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**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