Author's response to reviews

Title: Low levels of vitamin C in dialysis patients is associated with decreased prealbumin and increased C-reactive protein

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Author's response to reviews: see over
Dear Editor(s):

Thank you very much for your attention and consideration for our manuscript entitled “Low levels of Vitamin C in dialysis patients is associated with decreased prealbumin and increased C-reactive protein”. The suggestions from Professor Pasqual Barretti and professor Kuo-Cheng Lu are very important and helpful. The following are our responses to the two kind reviewers.

Responses to professor Pasqual Barretti:

Major Compulsory Revisions

Question 1
We have detailed the context of micro-inflammatory status in uremia in introduction just as professor Pasqual Barretti recommended, and added previous results on relationship between vitamin C supplement and improvement of oxidative stress in dialysis patients in the part of conclusion.

Question 2
We added inclusion and exclusion criteria of participants in the part of methods.

In the inclusion criteria, patients using central venous catheter, having stable cardiovascular disease; or currently using angiotensin converting enzyme inhibitor (ACEI), angiotensin receptor antagonist (ARB), or
statins were included, and we didn’t exclude the smokers in this study either. Because we think these conditions perhaps may change the levels of oxidative stress and vitamin C, but they may not change the relationship between hsCRP and vitamin C.

In the exclusion, patients who had active diseases such as autoimmune disease, malignancy, hepatitis were excluded, patients who currently used steroids or immune-suppressants, had positive human immunodeficiency virus(HIV) serology, and had any kind of acute infection within one month were also excluded. Because we think these kinds of conditions may cause unstable changes of oxidative stress, hsCRP and vitamin C.

**Question 3**

In the regression model, possible causes of chronic oxidative stress and chronic inflammation, such as serum bicarbonate level, type of hemodialysis membrane, were not used as predictor. Because we thought these variables were possible causes of inflammation, but they may not change the association of vitamin C and inflammatory markers. We just wanted to know the relationship between vitamin C and inflammatory markers, causes of chronic inflammation were ignored.

**Minor essential revisions**

Mistakes as use of spearman instead Spearman; absence of statement about A, B or C groups in table 2 have been revised already according to
the reviewer’s recommendation.

Comments to professor Kuo-cheng Lu

Question 1

The answered of this question is just as above.

Question 2

In the part of result, we added the results of three subgroups with different dialysis treatment including HD, HDF and HFD in MHD group.

Question 3

In the part of discussion, we supplement discussion about the differences of vitamin C, and nutrition due to the different dietary intake in three subgroups in both MHD and CAPD patients.

Question 4

In the part of result, we also added the results of patients receiving oral vitamin C supplements compared with patients not receiving vitamin C supplements.

Now, we are doing a cross-over designed prospective study in the stable dialysis patients to make sure if taking vitamin C supplements could improve the inflammatory status caused by oxidative stress in these population.

Thank you very much for your attention and consideration again.
Sincerely yours,

Li Zuo.