Reviewer's report

Title: Can Chitosan Chewing Gum Reduce the Serum Phosphate of Hemodialysis Patients? A Multi-Center Randomized Double-Blind Placebo-Controlled Trial

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Reviewer: Jaime Uribarri

Reviewer's report:

Akisawa et al report on the results of a multicenter trial looking at the effect of chitosan chewing gum on serum phosphate in hemodialysis patients. This is generally an area of important clinical research in view of the significant epidemiological association between serum phosphate levels and outcome in different populations. Overall the report is well written.

Main concerns:

1) The authors should read and incorporate within their discussion a recent review dealing on why we should not have expected any effect of the amounts of chewing gum used and serum phosphate in their hemodialysis patients (Oh MS, Uribarri J. What can we learn from the saga of chitosan gums in hyperphosphatemia therapy? Clin J Am Soc Nephrol. 2014 Jan 9. [Epub ahead of print]. Essentially, the amount of chitosan contained in the gum that were used is not large enough to expect any meaningful effect on reducing phosphate. The results of the current study confirm American studies previously published (reference 23).

These trials should have never been done because they were expected to fail, but since they were done I guess they should be published so that other workers in the field will not make similar mistakes.

2) The idea in the conclusions that more scientific data are needed for any further development of chitosan... should be changed. The quantitative data to develop or not this therapy already exists in the literature (see above reference in CJASN 2014).

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 I have no competing interests