Reviewer’s report

Title: Effects of L-carnitine supplementation on oxidative stress and antioxidant enzymes activities in patients with coronary artery disease: a randomized, placebo-controlled trial

Version: 2
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Reviewer: Rosalia Rodriguez-Rodriguez

Reviewer’s report:

This randomized placebo-controlled trial evidences the effects of L-carnitine supplementation on oxidative stress and antioxidant enzymes activities in patients with coronary artery disease. In this study, LC supplementation (1000 mg/d) increased the antioxidant capacity in CAD patients by increasing the activity of CAT, SOD and GPx and reducing the level of MDA. In general, the data are clearly presented. However, I have some doubts about the novelty and the contribution of the paper compared to recent publications related to the aim of this study.

Major Compulsory Revisions:
- Regarding to this, the authors should explain clearly the real contribution of the results of this investigation, since there are previous studies evaluating the effect of long term administration of LC (using the same dose or higher) on the antioxidant activities in patients under different circumstances.
- There are recent evidences about the negative effects of LC administration: recent studies suggest that dietary LC may accelerate atherosclerosis via gut microbiota metabolites, complicating the role of LC supplementation in health (Johri et al., Nutr Metab Cardiov Dis 2014). Did the authors consider these possible negative effects of LC chronic administration?
- Did the authors consider any additional medication in the patients? If so, in which manner this medication could interact with LC supplementation?
- Page 7, lines 118-128: this paragraph is not clear. The authors explain the results at 12 weeks and at the end of treatment, but it is supposed that the duration of the treatment was 12 weeks. Please clear this statement.

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