Reviewer’s report

Title: The Effect of Lifestyle Intervention in Obesity on the Soluble Form of Activated Leukocyte Cell Adhesion Molecule.

Version: 0 Date: 20 Sep 2016

Reviewer: Fernanda Ortis

Reviewer's report:

The manuscript "The effect of lifestyle intervention in obesity on the soluble form of activated leukocyte cell adhesion molecule" show an interesting study about the correlation between the expression of the sALCAM with some metabolic parameters that were modified by changes in lifestyle in obese patients. Among these parameter the main finding is that patients with higher levels of sALCAM had a higher decrease of HOMA-IR after the end of the study and lifestyle change, that includes body weight loss. The authors conclude that the concentration of sALCAM in obese patients could be used as a biomarker for prediction of insulin sensitivity improvement affected by lifestyle changes. Although very interesting, the study raise few questions that should be discussed to improve the quality of the work.

1) The sALCAM levels correlates negatively with age, couldn´t be then age the main cause on why patients with high sALCAM (that are younger) had better improvement in insulin sensitivity? Was this accessed?

2) How this correlates with a control group? It is stated that obese patients had higher concentration of sALCAM that lean population, how higher is this? In this case, age or HOMA-IR are also correlated with sALCAM?

3) It is possible to measure sALCAM function in these patients? This would help in the conclusion that this "might be a novel biomarker for immune responses in obesity which can be significantly affected by lifestyle intervention programs".

Minor point:

Correct figure 1C in the text for figure 2 (there is no figure 1C).
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.
Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.
No

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 recommend additional statistical review

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Please indicate the quality of language in the manuscript:
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