Reviewer's report

Title: Effect of Ambrotose AO(R) on resting and exercise-induced antioxidant capacity and oxidative stress in healthy adults

Version: 1 Date: 14 April 2010

Reviewer: Carlos Ayan

Reviewer's report:

GENERAL COMMENTS

This paper addresses great information about an important issue. Overall, I think that it is well written and it should be published. However, I have some comments to make

SPECIFIC COMMENTS

There are some minor essential revisions to be made

BACKGROUND

The authors state that the use of supplemental antioxidant nutrient intake in order to minimize oxidative stress levels is controversial. Could the reasons for this affirmation be explained?

Please, provide more information about the unpublished study, such as where or who carried it out.

Some information is missing concerning the reasons that justify the type of physical exercise chosen for the research as a stressor. In this line, it might be useful to explain a little bit more the relationship between aerobic and anaerobic exercise and why it was decided to carry out a progressive test.

METHODS

It is said that prior to the start of the study, trained subjects were asked to engage in regular exercise for a minimum of 4 hours per week. According to Table 1, these people were trained enough, so why was this necessary?

Please, describe in detail, if possible, the training program carried out (how many weeks it lasted, total volume, modality of exercise performed, training supervision...).

From my point of view, free weight resistance training, although it is mainly an anaerobic exercise, can be aerobic too, depending on the total amount of weight, resting time between sets and repetitions or execution speed. Because of that, I think that this affirmation should be revised.

Regarding the sentence “Please see Table 1”, there is no need to use the word
“Please”.

I would introduce a “measurements” subsection, in order to describe how all the measurements where taken as well as the tools used (questionnaires, heart-rate monitor..) and I think that even the explanation of the GXT should be written here too.

Although it can be obvious for most of the readers, it could be appropriate to explain the objective of the physical test and what the percentage of each interval means.

“Exercise Test Data”

I do not understand the following paragraph “No condition differences were noted for GXT time to exhaustion (p>0.05). However, a difference was noted between men and women and between trained and untrained subjects (p<0.05). If there were no differences in time to exhaustion, this means that trained people and untrained people showed the same anaerobic performance.” Please, explain this data again.

There is no need to write (p>0.05) regarding the absence of significant differences.

DISCUSSION

I advise the authors to include their comments for future studies at the end of this section, rather than in the conclusion.

CONCLUSION

This section is too long, it must be shortened.

TABLES AND FIGURES

There are too many tables and figures. If possible, the authors should find a way to reduce them down to 5-6 each.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

'I declare that I have no competing interests'