Reviewer’s report

Title: Long-term interdisciplinary therapy reduces endotoxin level and insulin resistance in obese adolescents

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Reviewer: Alessandro Laviano

Reviewer’s report:

The submitted paper describes the metabolic and anti-inflammatory effects of an integrated approach to obese adolescents. The paper is well written, and the results are interesting. However, a number of issues should be considered.

Major compulsory revisions

1. In the discussion section, the authors state that their intervention program was able to reduce fat intake, which was sufficient to reduce endotoxin concentrations and insulin resistance. Although it is acknowledged that fat intake, and specifically saturated fatty acids, is involved in the development of obesity and insulin resistance, it appears that the authors do not provide data on the relative contribution to the outcome measured of the different factors included in the program. Therefore, the authors should consider to review their claim that the effects observed are mainly from the reduction of fat intake.

2. The paper reports the results of only 18 patients out of 44 who started the program. Therefore, the program appears effective but the drop out/failure rate is quite high (more than 50%). It would be interesting to know more about the reasons for failing, whether patients dropped out early or at the end of the program, etc.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

No conflict of interest