Reviewer's report

Title: Resting heart rate as predictor of metabolic dysfunctions in obese children and adolescents

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Reviewer: D A Caranti

Reviewer's report:

The authors provide an attractive set of the original data, suggesting that resting heart rate is a predictor of metabolic dysfunctions in young obese.

This is certainly interesting and significant for the publication in this Journal. The conclusion is in accordance with its aims but I would like to suggest some topics to develop the quality of this research.

- When the authors describe the body composition assessment they use DEXA. I suggest more details and data about this method, not only fat percent in the table. This way, the authors could better explain the results of the body composition in the Discussion Session considering the contribution these variables. It is really interesting if have a total fat distribution in the DEXA assessment to elucidate more about the central obesity physiology in this population and a possible correlation with a pubertal stage.

- The reference of the pubertal stage is needed to include because is very important to explain a body composition changes in this period. I suggest for the authors to show the Tanner stage according the scientifically literature.

- In respect to biochemical profile and metabolic syndrome factors, I would like to know if the authors have more information about the prevalence of metabolic syndrome in this population and if is possible to explain in this way with a major description in the discussion session.

- The authors used a ROC analysis, I suggest more information about this analyse.

- In respect about the limitation of this study, I propose to describe future directions in the Discussion Session.

- I suggest improving the discussion session, to emphasize a lipid metabolism and obesity physiology not only the results obtained.