Reviewer’s report

Title: Independent Association of Resting Energy Expenditure with Blood Pressure: Confirmation in Populations of the African Diaspora

Version: 0 Date: 11 Jul 2017

Reviewer: Umberto Barbero

Reviewer's report:

Creber et al performed an interesting study on the association of Resting Energy Expenditure (REE) with Blood Pressure (BP) in a population of African or African descend people with a high prevalence of obesity and showed that in multivariate regression models, REE was significantly associated with both systolic and diastolic blood pressure (p < 0.01) while body mass index other measures of adiposity were either null and negative. The paper is well written, methodology impressive despite some lacking in statistical analysis and conclusion may add some new data on the neglected topic of REE. For these reason the article is worthy of publishing but only after some essential revisions:

In the abstract, line 24: the sentence "while body mass index other measures of adiposity were either null and negative" is not clear and should be improved.

Results line 10 "and" is repeated: insert comma.

Mean age should be added in the results section.

Results, line 48-51: change "drink" and "drinking" with alcohol consumption (and, if available, report about Daily Unit).

The mean values of BP reported are normal: how many patients had BP over the threshold for hypertension? if the majority of patients studied had normal BP, how REE would increase in a clinically relevant way the BP? Authors should discuss this point.

In results, line 48 and 52, the p-value of the Chi square test should be added to better clarify difference among men and women.

In the methods section a statistical paragraph should be added.

In the discussion the author report the role of cathecolamines as a possible mechanism. Have the cathecolamines been evaluated in their study? if not, maybe they can report about the correlation of BP and HR in their population and discuss it.

In the first lines (20-44) of the discussion, when talking about the role of hormones and cytokines that increase the cardiovascular risk, also inflation markers should be cited. Many
studies and metaanalysis have showed its relation with CV events at follow-up (see for example Assessing Risk in Patients with Stable Coronary Disease: When Should We Intensify Care and Follow-Up? Results from a Meta-Analysis of Observational Studies of the COURAGE and FAME Era. Scientifica (Cairo). 2016;2016:3769152. PMID: 27239372), and its relations with high pressure and obesity (see for example Adipocytokines, C-reactive protein, and cardiovascular disease: a population-based prospective study. PLoS One. 2015 Jun 2;10(6):e0128987. doi: 10.1371/journal.pone.0128987. eCollection 2015. PubMed PMID: 26035431)

In Table 1, 2 and 3 a column with the p-value of the Chi square test or of the Fisher's exact test should be added to better clarify difference among populations groups

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.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

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 am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal