Reviewer's report

Title: Body composition among Sri Lankan infants by 18O dilution method and the validity of anthropometric equations to predict body fat against 18O dilution

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Reviewer: Philippe Steenhout

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Body composition among Sri Lankan infants by 18O dilution method and the validity of anthropometric equations to predict body fat against 18O dilution

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1. Is the question posed by the authors well defined?
The introduction of the manuscript describes well the interest to conduct this trial for this specific population from developing country and looking at the differences between this technique and equations based on anthropometric measurements.

2. Are the methods appropriate and well described?
The methods is really well described for the technical measurement.

Line 81 we would appreciate to have more information on how the « infants with chronic anomalies, chronic diseases and any illnesses » were excluded. Was by example, some biological tests done to excluded those with anemia?

3. Are the data sound?
Concerning the statistical part of this report:

Line 79 it is mentioned that 25 infants were enrolled. On which statistical basis was this number selected? Was this number sufficient to obtain a reasonable statistical power for the results?

Line 160 The birth weight reported in 2.9 (2.0 - 4.0) kg and obviously then some of this infants must be considered as SGA. Was it an influence of the birth weight on the Fat Mass results at 4.5 months?

We would suggest to express also those values in term of Z-score at birth

Concerning the discussion:

Line 245 In reference to Bandana equation specifically developed for infants of developing countries, how to explain that Fat Mass is always underestimated in infants of developing countries. Is it due to the protein consumption in those population?

4. Do the figures appear to be genuine, i.e. without evidence of manipulation?
Yes

5. Does the manuscript adhere to the relevant standards for reporting and data deposition?

Due to the limited number of patients in this study, we can accept the reporting style even that it doesn’t completely adhere to the Consort Rules.

6. Are the discussion and conclusions well balanced and adequately supported by the data?

Yes

7. Are limitations of the work clearly stated?

Yes

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?

Yes they mention that they will use those results to develop a specific equation model with the $^{18}$O dilution method to be used in developing countries specific populations.

9. Do the title and abstract accurately convey what has been found?

Yes

10. Is the writing acceptable?

Yes

In conclusions:

This manuscript is of interest and should be published with minor revisions as described in the report above.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I am an employee of Nestec S.A. company and work also as free pediatric consultant at the CHUV Lausanne (University hospital - pediatric gastroenterology & nutrition department) Switzerland.