Reviewer’s report

Title: Changes in body composition measured by mobile whole body MRI during a 4,486km transcontinental ultramarathon. Results from the TransEurope FootRace Project.

Version: 2 Date: 10 August 2012

Reviewer: Satoshi Muraki

Reviewer’s report:

The data measured by a mobile MRI during ultra-marathon would give us a lot of new and valuable findings to understand physical adaptation to extremely hard physical work for long terms without any day rest.

Minor Essential Revisions

Introduction

The originality of this study is obscure. The originality of this study is that the use of a mobile MRI gives new findings of changes in body composition during transcontinental ultra marathon over several week. So, paragraph 2 in the methods section should be moved to the introduction section.

Material and methods

1) Please indicate information about the participant’s height, body weight in both finishers and non-finishers and race performance in finishers.

2) Page 3 Line 5 from the bottom: “fa” should read as “fat”

Results

1) Because there too many graphs, it will be difficult for readers to catch important findings. So, I recommend reducing the number of graphs. For example, Figure 4 and 5 are not really necessary, because other graphs with percentile also show similar information. Figure 10 shows same information as Figure 11.

2) On the other hand, this paper does not indicate absolute values at start for any indexes. If this paper indicates them, the left graph of Figure 7, Figure 12, and the upper graph of Figure 14 can be left out.

Discussion

The paragraph of VAT (Page 10) addresses relationships between the results and public health promotion. Although the findings might be indirectly useful to develop the strategy of health promotion, the main purpose of this study is not to do it. If this study was conducted to investigate health promotion, it should be addressed and included in the Introduction section.
Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests