Reviewers 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: 26 July 2012

Reviewer: Beat Knechtle

Reviewers report:

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

1. Is the question posed by the authors new and well defined? Yes
2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work? Yes
3. Are the data sound and well controlled? Yes
4. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes
5. Are the discussion and conclusions well balanced and adequately supported by the data? Yes
6. Do the title and abstract accurately convey what has been found? Yes
7. Is the writing acceptable? Yes

Minor Essential Revisions

Abstract
- Please define the abbreviations MRI, MR, T1w and TSE
- In the Conclusion, you mention ‘unpreventable chronic negative energy balance’. However, you have not measured energy intake or energy expenditure, so you have not energy balance.

Introduction
- Page 3, first paragraph, line 5: the sentence should start with ‘However’ not with ‘But’

Materials and Methods
- In the section ‘Body composition analysis’ in the first line, change ‘fa’ to ‘fat’.

Discussion
- In the section ‘ultra endurance related changes in body composition’ or ‘mass loss’ I suggest inserting the reference Knechtle B, Duff B, Schulze I, Kohler G, A
multi-stage ultra-endurance run over 1,200 km leads to a continuous accumulation of total body water, Journal of Sports Science and Medicine 7:357-364, 2008, where the authors showed a decrease in both fat mass and skeletal muscle mass in a multi-stage ultra-marathon.


Quality of written English: Acceptable

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

Declaration of competing interests:

I have no competing interests