Author's response to reviews

Title: Body composition in older acute stroke patients after treatment with individualized, nutritional supplementation while in hospital

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Version: 2 Date: 13 August 2010

Author's response to reviews: see over
Dear Editor,

Regarding your e-mail dated 2009-08-03, we are grateful for the comments we have received from the reviewers and the opportunity given to revise our manuscript.

Attached you will find our point-by-point response to the comments raised by the reviewers in addition to a revised version of our manuscript (ref.no. 8453090263999311), with the title: “Body composition in older acute stroke patients after treatment with individualized, nutritional supplementation while in hospital”. Changes are highlighted with “track changes” in the manuscript. The manuscript should now conform to the Journal style.

We now hope the manuscript is acceptable for your Journal.

Sincerely yours,

Lisa Ha
Reply to reviewers

Reviewer # 1

1. Please provide the number of patients according to the type of intervention prescribed (meals, sip feedings, enteral tube feeding) in the intervention group:
“Energy- and protein enriched meals were given and oral sip feedings were prescribed on the medicine chart to 47 patients, and tube feeding was offered to a total of 11 patients with severe dysphagia.” This information is now added to Material and methods, intervention, first paragraph, p. 7.

2. Is it possible to provide some more details regarding nutritional management in the control group?
Patients in the control group were not given individualized adjusted nutrition. A nutritional plan was not written. Oral sip feedings and enteral tube feeding were given.
This is added to Material and methods, intervention, first paragraph, p. 7.

3. How was normality tested?
Normality was evaluated from the Kalmogorov-Smirnov test, normal Q-Q plot and by studying the shape of the frequency histogram. This is now added to Material and methods, statistical analyses, first paragraph, p. 8.

4. Please avoid using “significantly”, especially if the p-values are mentioned.
We have now presented P values only and have avoided using “significantly” throughout the manuscript.

Reviewer # 2

1. The techniques used (anthropometry and bioelectrical impedance) are inconclusive in evaluating bone mineral content, lean tissue and fat tissue separately.
The limitations of bioelectrical impedance analyses for evaluating body composition have been discussed in the manuscript, Discussion, first paragraph, page 16. We have now added reference to a validation study of bioelectrical impedance spectroscopy to Discussion, first paragraph, p. 16. “The TBW and ECW measured by BIS have been
validated against reference methods (D₂O dilution and NaBr dilution method, respectively) with good accuracy, in healthy patients and in patients with imbalanced fluid status {{201 Moissl, U.M. 2006}}. “The anthropometric measurements supported our findings in fat mass changes. BIA and anthropometry are simple and non-invasive assessment techniques and thus particularly suitable for this patient group. Moreover, since we were mainly interested in the relative change in body composition among the individual patients during the three months observation period, any measurement error is less likely to alter our findings. Discussion, paragraph 6, p. 16.

2. The assessors were not blinded to the patient's allocated treatment method.
To minimize the possible bias from not blinding at baseline, the information about the allocated treatment was made inaccessible to the assessor at three month follow-up. This information is added to the manuscript. Material and methods, body composition analyses, second paragraph, p. 8.

Reviewer # 3

1. Clarify that the aim was to make separate comparisons for men and women.
We have made separate comparisons for men and women, and this has been added to the abstract, background, p. 2, and in Background, last paragraph, p. 4.

2. Clarify “the weight loss was smaller in the intervention group compared with the controls (P=0.013)” and “the intervention reduced clinically relevant weight loss in the intervention group compared with the controls although non-significantly (P=0.055)”
We have now emphasized that the first finding was from after the first week of intervention (Abstract, results, p. 2) and the second finding was from after three month follow-up (Background, paragraph two, p. 4).

3. Describe the reasons for why some patients were not reassessed.
The reasons for why not all patients were not reassessed at three months were due to 22 patients were dead and 19 patients refused to attend follow-up. This has been added to the Material and methods, inclusion process, paragraph 2, p. 6.
4. Clarify “showed that 124 patients were required”- in total or per group?
A total of 124 patients were required, and this detail is added to the manuscript, Material and methods, inclusion process, paragraph 3, p. 6.

5. By whom was nutritional advice given before discharge?
The patients were discharged with nutritional advice to prevent undernutrition, by a dietitian. This is added to the manuscript. Material and methods, intervention, paragraph 1, p. 7.

6. Also non-parametric tests must have been used (table 1).
Non-parametric tests were used when the continuous variables did not follow normal distribution. This information is added to the manuscript, Material and methods, statistical analyses, paragraph 1, p. 8.

7. “In our study there were minor and non-significant increases in fat-free mass, body cell mass and lean tissue mass in both study groups.” At what time?
Revised line: In our study there were minor and non-significant increases in whole-body fat-free mass, body cell mass and lean tissue mass after three months in both genders and in both study groups. Discussion, paragraph 2, p. 14.

8. There is a need for a paragraph discussing/speculating in why the intervention worked in women but not in men. What are the recommendations from the findings?
10. Table 1. Results should be given for men and women separately. The results can then possibly give some explanation to comment 8 above.
Comparison of men and women with regard to baseline values has been performed. The baseline data did not significantly differ, except for age and prevalence of diabetes. The mean age in the men was significantly lower than in the women (77.3 vs 80.8 years), and there was significantly more diabetes in the men compared with the women (32 % vs 19 %). This is now added to results, first paragraph, p. 10.

The lean tissue mass in men was 12 kg higher than in women, and it might have been more difficult for men to consume sufficient energy because the metabolic needs were higher. The higher prevalence of diabetes in the men compared with the women could
possibly result in lower intake of food and drinks with added sugar, and hence, the total intake of energy. This is now added to paragraph two, page 13.

Due to the risk of deteriorating nutritional status after hospital discharge, a close follow-up of patients with regard to nutritional status and nutritional intake is recommended. This is mentioned at the end of Discussion section, p. 16.

9. *Figure legends are missing.*

Figure legends are given on a separate page (p. 23).

Additional change:

There is a change in the reference for estimating resting energy expenditure: “… and in immobile older patients, 84 kJ per kg body weight can be used to estimate the resting energy expenditure {{199 Lammes,E. 2006}}.” Discussion, second paragraph, page 13. The new reference is the original article which is cited by Arvanitakis et al which was originally used as the reference.