

Author's response to reviews

Title: A Controlled Trial of Protein Enrichment of Meal Replacements for Weight Reduction with Retention of Lean Body Mass

Authors:

Leo Treyzon (ltreyzon@mednet.ucla.edu)
Steve Chen (schen@mednet.ucla.edu)
Kurt Hong (kurthong@mednet.ucla.edu)
Eric Yan (eyan@mednet.ucla.edu)
Catherine Carpenter (ccarpenter@mednet.ucla.edu)
Gail Thames (gthames@mednet.ucla.edu)
Susan Bowerman (sbowerman@mednet.ucla.edu)
He-Jing Wang (wangh@ucla.edu)
Robert Elashoff (relashof@biomath.medsch.ucla.edu)
Zhaoping Li (zli@mednet.ucla.edu)

Version: 3 **Date:** 23 April 2008

Author's response to reviews: see over

Response to the reviewer

We would like to apologize to Reviewer 2. We did not receive his/her comments until April 11, 2008. It was not our intention to ignore his/her comments.

Title: A Controlled Trial of Protein Enrichment of Meal Replacements for Weight Reduction with Retention of Lean Body Mass

Reviewer 2

Reviewer's comment:

1. Data analysis of the primary outcomes (weight loss) should include observed values and LOCF (ITT) analysis. Ideally a figure should present observed values as % of initial body weight at each time point (2,4,8,12 weeks). A table should present values in kg and % for completers and LOCF at 12 weeks.

Response: In a clinical trial, it is a pretty common case that subjects dropped out before study completion. Therefore the outcome measurements at last visit are missing. There are three ways to handle the missing data: 1) Use the observed cases only (OC); 2) Last observation carry forward (LOCF); 3) Use imputation method. For this study, OC method was used.

In this study, the 15 subjects who dropped and the 85 subjects who completed the 3-month study had similar baseline characteristics (see the table below); also, all of the 15 subjects dropped within one week following randomization and didn't have any post treatment evaluation. It is reasonable to judge the withdrawal as at random and no association with outcomes. In this circumstance, discard the early dropped subjects and use the subjects completed the study for statistical analysis (OC method) is appropriate. Furthermore, the aim of this nutritional study is to investigate the effect of high protein diet. In general, it takes time to achieve diet intervention effect. To include those early dropped subjects into the data analysis (LOCF method) might produce misleading results. Since the 15 subjects dropped out early and didn't have any post treatment measurement; the imputation method is also not appropriate.

	Subjects dropped (mean \pm SE)	Subjects remained (mean \pm SE)	Comparison
Gender (%Female)	77.9%	70.0%	NS
Wt	222.2.2 \pm 7.4	205.4 \pm 3.5	NS
BMI	35.0 \pm 1.0	32.9 \pm 0.4	NS
BIA fat wt	83.2 \pm 3.6	74.6 \pm 1.8	NS
BIA lean wt	136.0 \pm 5.0	130.3 \pm 2.7	NS
Cholesterol	188.1 \pm 7.3	201.9 \pm 4.6	NS
HDL	54.6 \pm 3.1	53.5 \pm 1.3	NS
LDL	112.1 \pm 6.7	123.1 \pm 3.9	NS
Triglyceride	106.6 \pm 25.5	120.0 \pm 6.6	NS

We also carried out statistical analysis with LOCF method and listed fellow, just FYI.

	OC Method		LOCF Method	
	HP Group	SP Group	HP Group	SP Group
BIA Fat Wt (Kg)				
Baseline	35.25 ± 1.04	32.34 ± 1.26	35.36 ± 0.94	33.35 ± 1.18
Month 3	33.60 ± 1.22	31.70 ± 1.03	33.87 ± 1.11	32.81 ± 1.02
Change (Singed rank test)	-1.65 ± 0.63 (P<0.0001)	-0.64 ± 0.79 (P=0.43)	-1.48 ± 0.58 (P<0.0001)	-0.53 ± 0.66 (P=0.43)
	*P=0.05		*P=0.03	
BIA Lean Wt (Kg)				
Baseline	58.34 ± 1.61	60.01 ± 1.87	58.90 ± 1.52	60.07 ± 1.61
Month 3	55.56 ± 1,42	55.95 ± 1.74	56.40 ± 1.39	56.66 ± 1.53
Change (Singed rank test)	-2.78 ± 0.62 (P<0.0001)	4.06 ± 0.93 (P<0.0001)	-2.50 ± 0.57 (P<0.0001)	-3.41 ± 0.81 (P<0.0001)
	*P=0.30		*P=0.47	

* Comparing the change between HP and SP groups using Wilcoxon rank sum test.

The results obtained by OC and LOCF methods were very similar.

Reference

Steven Piantadosi (2005). Clinical Trials. A methodologic Perspective (second edition). John Wiley & Sons Inc. Hoboken, New Jersey.

Reviewer's comment:

2. Important secondary outcomes should be presented in tabular form (waist, fat mass, lean body, lipids). Why are glucose values not presented?

Response: waist circumference, fat mass, lean body mass were added to Table 2 as recommended.

Glucose value was added to table 3 and result section.

Reviewer's comment:

3. The abstract should accurately report the observed results. There was significantly more fat loss in the HP group but no significant difference in lean body mass.

Response: clarification was done as recommended.