Reviewer's report

Title: Effects of Protein-Enriched Meal in a Weight Loss Program on Liver, Kidney or Bone: a Randomized Controlled Trial

Version: 2 Date: 24 August 2010

Reviewer: Vijay Ganji

Reviewer's report:

Authors have some addresses some but not all. Some of my concerns remain.

1) Although they mentioned the procedures for compliance, they failed to mention the level of compliance that the investigators are looking for. Was it 70%, or 80% or 90% compliance with the MR? If they did not measure that should be mentioned the limitation section.

2) There was no mention of "fasting". Whether or not blood was collected after overnight fast?

3) I see they have included the drop out data in the revised manuscript. It was not clear, whether the data associated with the drop out subjects were eliminated in the final analysis? This needs to mentioned in the "statistical analysis" section.

4) On page 11 (line # 197-200), they is a mention of increased protein excretion SP but no in the HP group. I wish they had commented about this in the discussion. This definitely may not be due to the MR administration. This is an odd observation. Any mix up of samples or mislabeling of specimen?

5) I am little confused with "weight loss". On page 14, line #261-262 you said "the expected effects of increased weight loss resulting from a high protein diet were not seen in this study". At the bottom of the same page, under conclusion you said ".....HP and Sp diets resulted in the expected wight loss typical of an MR diet plan at 12 months". Can make these 2 statements a bit more clearer. It appears those two statements contradict.

6) It is interesting to see there is some beneficial effects with the MR in lipid profile at 3 or 6 month level depending on the type of lipid. Authors should comment on this. Perhaps it may be due to the fact that participants did not adhere to the diet plan after first 3 or 6 months. Studies have shown after 3 to 6 months the compliance with the study procedures goes down. This is a possibility but not sure how likely in your study. This may also likely explanation for lack of effect on other biochemical parameters. This should be mentioned in the discussion and put under limitation.

7) What is the grams of protein per kg of body weight. This should also be given in addition to the intake per kg of lean body mass. I would expect the protein in MR per kg body weight would be much less. My guess is that the protein content
in the HP group would be around 1.6-1.8 g/kg body weight. If this is correct and this is not a very high protein diet by any means. Then the biochemical markers would not be affected that much because our body can easily adjust to fluctuations in macronutrient intake on a daily basis.

Minor points:

1) First time when abbreviation is used, it should be spelled out. For example MR, GFR, and ANOVA.

2) Line 14. ".no difference between...." mean no difference between "end point weights of two treatments".

3) Line 23: "secretion". You mean excretion?

4) Line 19: You mean "alkaline phosphatase".

5) Line 52: Please spell out MR first time.

6) Line 109: week 0? I thought the weights were done every 3 months.

7) Methods: I see the explanation was given for measurement of lipids. This is more than I was looking for. How about other biochemicals such as AST, bilirubin. There is no need to give a very elaborate methodology but in 1 or 2 statements, very briefly state the methodology for the rest.

8) Line 149: Spell out ANOVA first time.

9) Line 174: Please add p-value.

10) Line 181: Please change level to concentration not only here but also other places. "Concentration" is a better choice than the "level".

11) Line 198: Please change "secretion: to "excretion".

12) Line 251: Please add reference (after metabolic syndrome).

13) Table 1: Table shows that there were 100 subjects in fact study had only 35 in each group. This table should only have the data for subjects who completed the study. The table is more meaningful this way.

14) The protein diet was based on LBM. In the table 1, there is no LBM for those two groups.

15) Please change "triglycerides" to "triacylglycerol".

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

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'