ANSWERING REVIEWERS

April 07, 2015

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 17280-review.doc).

Title: Hepatic fat quantification MR for monitoring treatment response in pediatric nonalcoholic steatohepatitis

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Name of Journal: *World Journal of Gastroenterology*

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The manuscript has been improved according to the suggestions of reviewers:
1. Format has been updated.
(1) We provided the language certificate by professional English language editing companies.
(2) We added the abbreviation names of all authors and title of the manuscript below Core tip.
(3) Comments section was added according to the 'format for highlighted contents' after the Acknowledgements.

2. Revision has been made according to the suggestions of the reviewers.

Reviewer 1

(1) This is a retrospective study and follow up time is relatively short.
➔ This is a major limitation of our study. We added this comment in the Discussion.

(2) Its seems to be 27 children evaluated in this study. but authors said that 49 children received the study. 22 children has not been evaluated in this study.
➔ We included 27 children. We corrected the number.

Reviewer 2

(1) Authors don't mention how they obtain the compliance of Children to the diet and exercise! Also they don't mention if Children received the same treatment except Vit E and the diet and exercise.
➔ Compliance of diet and exercise treatment was checked at every clinic visit from daily records about feeding, exercise and medication history written by parents and caregivers. Treatments other than diet, physical exercise education and Vitamin E were not provided. We added these comments in the Materials and Methods.

(2) In Material and Method they mention 49 Children, however in statistical analysis they include just 27, without to refer why they exclude the rest 22 Children!
➔ We included 27 children. We corrected the number.

(3) In the discussion, they refer in detail to technics for the evaluation of fat, while they should do it in brief into the introduction.
➔ We added the techniques in brief in the Introduction.

(4) In the introduction section: "Moreover, the risk of radiation exposure is a major disadvantage, especially in children. No studies currently compare CT assessment of hepatic steatosis in Children" Compare with what???
➔ No studies have yet compared the CT assessment of hepatic steatosis with histologic grades of fatty infiltration in children. We added the comment.

(5) In Material and Method section "Nutrition was recommended as a low caloric diet (25 ~ 30 Kcal/kg/day),

made up of fat (25 ~ 30%), carbohydrate (50 ~ 60%) and protein (15 ~ 20%). Fatty acid was composed as followed by the Italian recommendation dietary allowances with recommendation with a moderate exercise program (1 hour/day at least 5 days a week). Vitamin E (daily dose of 800 IU) was also recommended to all patients for improvement of liver histology [23]". There are grammar and syntax errors! Furthermore, there is not only one fatty acid, but plenty of them.

➔ We corrected the sentences as "A low-calorie diet (25 ~ 30 Kcal/kg/day) composed of a certain range of fat (25 ~ 30%), carbohydrate (50 ~ 60%) and protein (15 ~ 20%) was recommended. Clinical nutritionists in our hospital guided the diet planning and a moderate exercise program (1 hour/day at least 5 days a week). Vitamin E (daily dose of 800 IU) was also recommended to all patients to improve liver histology [23]."

(6) In statistical analysis: "Patients who followed the educational recommendations and showed remarkable interval changes in BMI, AST, and ALT during one year under observation" The compliance in educational/dietary recommendations was based only in patients' statements?

➔ Compliance of diet and exercise treatment was checked at every clinic visit from daily records about feeding, exercise and medication history written by parents and caregivers. We added these comments in the Materials and Methods.

(7) In results section:"27 children underwent both a pre-treatment and a follow up MR during this period and were included in this study. There were 24 boys and three girls..." The other 22 children why were not included in the study population? "

➔ We included 27 children. We corrected the number.

(8) Table 2 shows the results of initial and follow-up findings in the two groups. Body weight did not change" Did change, but not significantly!

➔ We added 'significantly' after not change.

Reviewer 3

(1) The authors should conduct analyses on the correlation between the decrease of body weight (& BMI) the reduction of fat fraction measured by MR.

➔ Thank you for your suggestion. We additionally performed the correlation analysis using Spearman correlation including all patients and obtained a positive correlation between the BMI change and the dual-echo fat fraction change (ρ = 0.418, P = 0.030). However, the BMI change and triple-echo fat fraction change was not correlated (ρ = 0.316, P = 0.109). The body weight change and fat fraction change also did not show a significant correlation for both dual-echo (ρ = 0.213, P = 0.285) and triple-echo (ρ = 0.135, P = 0.501) sequences. We added these results.

3. References and typesetting were corrected.

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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