Author's response to reviews

Title: Circulating levels of Insulin-like Growth Factor-I (IGF-I) correlate with disease status in leprosy

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

I wish to thank the editors of **BMC Infectious Diseases** for giving us the opportunity to revise our manuscript based on the suggestions and constructive criticism provided by the reviewers. We have responded to all reviewer comments, point by point, and have revised the manuscript accordingly.

**Responses to comments of Reviewer #1**

1. My final suggestion is that the wording used in their reply to my comment #11 be incorporated into the text of the manuscript, because it states the case very clearly, i.e.: "While lower levels of IGF-I/IGFBP-3 might be reflective of high immune-suppression levels, a controlled immune-inflammatory response, and high clinical stability in NR LL patients, higher levels of this hormone in R LL patients might indicate reduction of suppression and ENL development.

   **Response:** As recommended, the sentence above was incorporate in the discussion section line 313.

2. **Quality of written English:** Needs some language corrections before being published

   **Response:** As suggested by the reviewer, the manuscript was revised accordingly.

3. **Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

   **Response:** Since the serum levels of IGF-I and IGFBP-3 vary with age, and there are age differences between groups, we used analysis of variance (ANOVA) test considering age as a
covariate to compare means among groups. This method allows mean group comparisons controlling the effect that age has on the levels. Pairwise comparisons between groups were done using Bonferroni test, adjusting the significance level for the fact that multiple comparisons are made. Since the levels of the same patients were measured at different times (before and during reaction), we used paired t test to compare IGF-I, IGFBP3, and TNF-α levels before and during reaction. We made a mistake in the description of statistical analysis by stating that Wilcoxon test was employed to compare IGF-I, IGFBP3, and TNF-α levels before and during reaction. This non-parametric test was used a priori, but during the analyses of results we decided to change to the parametric t test because it presents higher statistical power. The results provided by both tests were equivalents in terms of statistical significance. The revised version of the text was amended. The partial correlation coefficients describe the linear relationship between two variables while controlling for the effects of one or more additional variables. Values close to +1 or -1 indicate strong linear correlation. Pearson partial correlation coefficient (controlled for age) was calculated between BI and IGF-I and IGFBP-3 levels. We included a phrase regarding this point in the revised version.

I hope the manuscript is now acceptable for publication. Thank you for your consideration.

Sincerely yours,

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