Author's response to reviews

Title: Effect of non-surgical periodontal treatment on glycemic control of patients with diabetes: a meta-analysis of randomized controlled trials

Authors:

Quan Li (liquan84@163.com)
Sha Hao (haosha717@sina.com)
Jie Fang (fannyjie@126.com)
Jing Xie (xiejingdentist@163.com)
Jian-Xin Yang (yangjx13@163.com)

Version: 2
Date: 6 April 2015

Author's response to reviews: see over
Dear editor, there are point-by-point response to the reviewers’s concerns.

Reviewer 1:[Steven P Engebretson]
1. The PRISMA checklist is already done according to the guidelines, attached to the file upload to the authors center.
2. the n=1082 in the Abstract and the n=1082 in the text(Discussion Paragraph 1) are already revised
3. six month study analysis, explain why is was not done. Because more than two thirds of the studies included were of 3 months duration, So we mainly analysis the 3 months duration, we will also analysis the 6 months duration later, if the number of the 6 months study is large enough.
4. Introduction: 1st paragraph last sentence is already revised as: can alleviate the pathological progress of the periodontal disease.
5. Introduction 3 paragraph: WHO is spelled out (World Health Organization)
6. Methods, since the search strategy terms is very long, so we concise the search term in the Appendix 1. If the editor thinks the text should contain the long strategy terms, we will revise the manuscript timely.
7. Statistical Analysis section paragraph line 1. comparison were included[23] is revised.
8. RESULTS second paragraph second sentence: The mean age of subjects in the included studies ranged from is revised.
9. Methodological study quality assessment first sentence: the colon (:) is revised after ‘which are’
10. heterogeneity use superscript $I^2$: $I^2$ is revised.
11. Publication Bias second sentence is reworded as: In Egger’s test, the intercept value of the y-axis was negative (-2.37).
12. Discussion: the small sample size effect (the small sample size study with larger variance is more likely to overestimate the effect sizes compared with large trials).
13. Discussion: 4th paragraph possible pathomechanism is unclear, we revise the sentence with “Biological plausibility could be established at this point.”
14. 5th paragraph Second sentence is already reword as While the clinical value of the HbAbc-reduction can not be neglected and. Last sentence is revised as ‘treatment regimens’
15. 6th paragraph, last sentence is omitted
16. Tables: already to align columns, also 2013 USA study is revised 514.
17. Table 2 third column heading is completed, “blinding of participants and personnel”

Reviewer 2:[Lazaros Tsalikis]
1. We have renewed the search till April 2015 and got two new RCT for the meta-analysis, see Reference 32-33.
2. Index I and X are revised: see Results—Exploration of heterogeneity—$x^2$, $I^2$ etc
3. how the studies’ weight was calculated? We used the Stata 12.0 software—meta-analysis—metan(of continuous)—Pool Model—Random(I-V heterogeneity)—Statistic(no Standard)
4. the choice of the effect size (weighted mean difference). We choose the Weighted mean difference (WMD) other than the standardized mean difference (SMD), because WMD calculated based on the Mean, SD, N, considering the sample size, WMD could explain the ES more clearly
and comprehensive.

5. The colours of the Fig 3 was already reversed for the publication.

6. (page 12) how they counterbalanced these two consequences of small sample size studies. In one way, we calculated the Effect Size in the meta-analysis with the subgroup analysis[ small sample size (n<80) and large sample size (n>80) ],to detect the difference of the heterogeneity and ES between the two subgroups. In the other way, when we selected the RCTs, we assess the methodological study quality strictly in order to minimize the systematic error within the small sample size studies.

7. how they tested the effect size’s normality. We tested the effect size’s normality mainly through the chi-square test for homogeneity (Cochran Q-statistic and P-value), as well as I-squared statistic and 95% CI of the $I^2$. And if the number of the RCTs included in the meta-analysis is large enough, we could use the One-way(ANOVA) to test the effect size’s normality.