Author’s response to reviews

Title: Matrix metalloproteinases gene variants and dental caries in Czech children

Authors:

Petra Borilova Linhartova (peta.linhartova@gmail.com)
Tereza Deissova (436741@mail.muni.cz)
Martina Kukletova (makukl@med.muni.cz)
Lydie Izakovicova Holla (holla@med.muni.cz)

Version: 2 Date: 28 Mar 2020

Author’s response to reviews:

BMC Oral Health - Editor

March 28 2020

Dear Editor,

Thank you very much for giving us the opportunity to revise OHEA-D-20-00025R1, newly entitled “Matrix metalloproteinases gene variants and dental caries in Czech children” by Petra Borilova Linhartova, Tereza Deissova, Martina Kukletova, and Lydie Izakovicova Holla.

The manuscript (MS) was revised according to the referees’ suggestions (all changes were marked with a “text-marker” blue) and all questions raised were addressed (particular changes made are listed on separate pages). We acknowledge the reviewers’ efforts and hope that the revised form of the MS will be acceptable for publication in your journal.

Yours faithfully,

Lydie Izakovičová Hollá, M.D., Ph.D.
Professor of Stomatology and Pathophysiology
Vice Dean for Dentistry Study Programme
Head of Stomatology Department
Faculty of Medicine, Masaryk University
E-mail: holla@med.muni.cz
Tel.: +420 543 183 406
Specific changes made in manuscript OHEA-D-20-00025R1 - revision

To: Reviewer 1

This manuscript is a revised version of an earlier report on a study to assess the relationship between MMP gene variants and caries status of children in the Czech Republic. The authors have addressed most of the comments from the reviewers but I still have some suggestions for improvement.
My comments are as follows:

1. Abstract - the conclusion statement should mention Czech children, as in the study aim.

Answer: The Abstract was corrected according to the reviewer’s suggestion (page 2).

“This study demonstrated the lack of association between the selected SNPs in candidate genes of MMPs and the susceptibility to or the severity of dental caries in both primary and permanent dentitions in Czech children.”

2. Introduction - I cannot find the added study hypothesis (authors' reply to Q11 of Reviewer 2). The stated aim of the study (page 3, last paragraph) is "… to determine genotypes in these SNPs in Czech children with primary/permanent dentitions." but the conclusion statement (page 8, last paragraph) is "… lack of association between the selected MMPs gene variants and susceptibility to or severity of dental caries in both primary/permanent dentitions.” There is a mismatch. The study aim/objective needs to be reformulated to match the conclusion, or vice versa.

Answer: We are sorry, the hypothesis was added (it was a mistake). The conclusion was reformulated to match both the aim and the hypothesis.

“The aim of the study was, based on the literature review, to select the SNPs in the genes encoding MMP2, MMP3, MMP9, MMP13, MMP16, and MMP20, which had been previously associated with dental caries in other populations [19-22, 26-29], and to determine genotypes in these SNPs in Czech children with primary/permanent dentitions. The null hypothesis is that there is no association between selected SNPs and dental caries development in both dentitions in our population.“ (page 3)

“In conclusion, genotypes in selected MMP SNPs in Czech children were determined, and this study demonstrated the lack of association between the selected MMPs gene variants and susceptibility to or severity of dental caries in both primary and permanent dentitions in the Czech population. “ (page 8)

3. The authors can further enhance the English language use during the revision.

Answer: The manuscript was checked by an English native speaker.
Thank you again for your comments which we hope have helped improve the quality of our article.

To: Reviewer 2

The authors performed a good work in this new version.

Thank you for your positive evaluation of our manuscript.