Reviewer’s report

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

Version: 0 Date: 10 Feb 2020

Reviewer: Erika Kuchler

Reviewer's report:

I have read the manuscript "Matrix metalloproteinases gene variants and dental caries in children: a case control study" with a particular interest. This is an important study with 2 large groups of children included that evaluated 9 SNPs in MMPs. Before publication, the authors should perform some alterations in the manuscript. My comments are:

Remove case-control study from the title. This is not a "classical case-control.

The introduction is too short and should be expanded.

The aim of the study should be placed in the introduction. Should also have references which are the "previous studies".

The inclusion and exclusion criteria for group 2 should also be described here.

In table 1, the group with "Caries affected children (DMFT≥6)" were compared with which group? A note should be added in the table.

More data regarding how and where clinical examination was performed is needed.

Why gingival index (GI), plaque index (PI) and calculus index (CSI) were evaluated if was not used?

In the results, the authors should demonstrate age and gender distribution among all groups.

Where is the allele distribution results?

Why the authors did not test dominant and recessive models?

Table 2 needs a better explanation in the results section.

This manuscript is missing this reference bellow:

MMP13 Contributes to Dental Caries Associated with Developmental Defects of Enamel.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
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I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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None

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