Reviewer’s report

Title: Effect of parathyroid hormone-related protein on odontogenic differentiation in human dental pulp cells

Version: 0 Date: 06 Dec 2019

Reviewer: Thanaphum Osathanon

Reviewer's report:

The present study described the effect of PTHrP on odontogenic differentiation of human dental pulp cells. Authors indicated that effect of PTHrP on odonto/osteogenic marker expression was dose dependent. In addition, influence of PTHrP on mineralization in these cells occurred via AKT, ERK, JNK, and p38 signaling pathway. This study is of interest. However, there are some points required the clarification.

1. Fig. 1D, the band of DMP1 seems not significant increase in PTHrP treatment. However, the graph of band density indicate the marked different. This point should be further clarified.

2. What is the dose of all inhibitor and the cat no and company? Rationale of dose selected in the chemical inhibitor experiment should be described. Are these dose toxic to the cell? Did authors include the inhibitor alone condition (without PThr supplement)?

3. Addition markers i.e early markers (RUNX2, OSX) and late marker (OCN) should be investigate regarding the effect of PTHrP on osteogenic differentiation.

4. Discussion should be more comprehensive. There are several studies related to the participation of PTHrP on dental pulp cell/tissue biology. Those studies should be evaluated and discussed.

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.

No

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?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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

Acceptable

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