Reviewer's report

Title: Association of infant growth with emergence of permanent dentition among 12 year-aged southern Chinese schoolchildren

Version: 1 Date: 04 Feb 2018

Reviewer: Peter Bottenberg

Reviewer's report:

This article describes statistical associations between birth weight development and tooth emergence in a cross-sectional sample of Hong-Kong children. Using cross-sectional with a one-time measurement on a phenomenon like growth and tooth emergence will probably yield some significant associations somewhere but no definite proof of some hypothesis. This is also poorly developed in the discussion. It would probably yield more interesting data to do several consecutive clinical assessments to catch tooth emergence in order to judge its rate or progress.

Of the children you examined it was a dichotomous decision: all teeth present or not, or all teeth in a certain anatomical location present or not. Statistically, it is a missed chance not to include children with multiple unerupted teeth in order to derive some information on "quick" or "slow" emergers. This would have yielded much more interesting data like for instance the longitudinal studies on tooth emergence by Leroy et al (Eur J Oral Sci. 2008;116:11-7 or Community Dent Oral Epidemiol 2003; 31: 30-9)

Furthermore, it puzzles me that in table 2, there are some significant variables between included and excluded participants. The reason and implication should at least be discussed.

Next to weight gain, length growth may have contributed as well and could as well have been extracted from the database. Why was this not done?

Conclusion: an interesting question, alas on a somewhat inadequate experimental design. It presents an interesting pilot study but the data acquisition should be refined.

Furthermore, there are some rather odd formulations like: "Children of 1997 were those born between April 1st and May 31st, 1997 in Hong Kong (N = 8,327, 88.0% of all newborns)" suggesting that child birth in Hong Kong happens mostly in spring.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

Unable to assess

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

No

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

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal