Reviewer’s report

Title: Prevalence and associated factors for Pterygium in Han and Mongolian adults: acrosssectional study in inner Mongolian, China

Version: 0 Date: 31 Oct 2019

Reviewer: Reviewer 3

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (brief or other article types: is there a clear objective)?

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

STATISTICS - Is the use of statistics in the manuscript appropriate?

No - there are issues with the statistics in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?

Probably - with minor revisions
PEER REVIEWER COMMENTS:

GENERAL COMMENTS:

My overall impression with the study is that the objective is clear, the design is adequate, the execution is precise. The interpretation can be somewhat shortened.

My main concern is with the statistical analyses. They performed many comparisons and in such cases it is common practice to have a stricter p-value.

The authors can also vastly shorten their discussion which is a bit lengthy.

REQUESTED REVISIONS:

1. Objective: the objective of the study is clear and well written. No comments.

2. Design: The design of the study is adequate. No comments.

3. Execution: Why was a BMI greater than 28 and 24 selected? Arbitrarily?

4. Statistical methods/analysis: well executed. Given the fact that there are 23 p-values provided in table 2. Was any correction performed for multiple comparison? Perhaps use a stricter p-value such as p<0.002 (0.05/23) rather than p<0.05?

5. Interpretation: The authors should cite the study by Nemet AY "Epidemiology and Associated Morbidity of Pterygium: A Large, Community-Based Case-Control Study." that also evaluated factors associated with pterygium in a large database.

6. Discussion is a bit lengthy and can be considerably shortened.

ADDITIONAL REQUESTS/SUGGESTIONS:

1. Paper's novelty: adds to the pool of knowledge regarding factors associated with pterygium in a large sample of patients.

2. Presentation (including language, grammar, or structural formatting)
   a. Too many grammar and spelling mistakes to point them all out. Recommend that a native English speaker should review the paper. Examples listed below:
   b. Abstract, Methods, line 103: "at least 30" - missing a space
   c. Abstract, Results: spell out first use of BMI and BF%.
d. Background, line 139: "The most widely proved factor is ultraviolet 140 radiation." Change to "The most established factor is..".

e. Methods, lines 171: "Hohhot, a large city located at40.83°Nthat" - spaces are missing.

f. Etc..

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.

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:

Needs some language corrections before being published

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

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