

PEER REVIEW HISTORY

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ARTICLE DETAILS

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| TITLE (PROVISIONAL) | Geographic Prevalence and Risk Factors for Pterygium: a systematic review and meta-analysis. |
| AUTHORS | Huang, Desheng; Liu, Lei; Wu, Jingyang; Geng, Jin; Yuan, Zhe |

VERSION 1 - REVIEW

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| REVIEWER | Victoria Allgar University of York, England |
| REVIEW RETURNED | 11-Sep-2013 |

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| GENERAL COMMENTS | <p>In the results section, prevalence rates comparing males and females, unilateral vs bilateral, china papers. age and latitude are shown. There is no statistical comparison of the subgroups. Forest plots could be shown for the sub-group analysis, or at least a summary table of the data with the significance test results. As there are some apparent differences a meta regression could be used here.</p> <p>The funnel plot of the overall pooled prevalence of pterygium is shown in Figure 4. There needs to be narrative to provide interpretation of this graph and implications. They state that "There was no significant publication bias in this meta-analysis," BUT THE FUNNEL PLOT DOESN'T SHOW THIS.</p> <p>It is unclear why at the end of the results section a sub-analysis of 6 papers is presented, when these issues have been addressed in the preceding analysis.</p> <p>Overall the paper is OK but could warrant a little more detail in the presentation and statistical tests of sub-groups.</p> |
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| REVIEWER | Eduardo Rocha FMRP-USP Brazil |
| REVIEW RETURNED | 24-Sep-2013 |

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| GENERAL COMMENTS | The authors bring this manuscript aimed to investigate the pooled prevalence and risk factors for pterygium in the world, using meta-analysis. They used 20 out of 138 peer-reviewed articles in the period of 2000 and 2012, either in English or Chinese. |
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| | <p>The major findings were that the whole prevalence is around 10% of the population, and the risk factors are aging, male gender, outdoor work and low latitude. In addition unilateral cases are more common than bilateral.</p> <p>The work was well justified, use correct methods and the text is clear and concise.</p> <p>Minor suggestions Line 29, page 6 (PDF version): please rephrase: Although disorders of the conjunctiva of unknown etiology for pterygium, it seems to be associated between outdoor work and pterygium formation</p> <p>Discussion: several findings were repeated in this session and that is not necessary (Ex; line 47-53 of page 10). Also the authors mention that publications reviewed were in the range of 2000 and 2013 (line 51, page 11). This is in conflict with the period mentioned in Methods session (line 22, page 7: 2000-2012).</p> <p>The major weakness that should be mentioned in the discussion is that some of the selected papers used in the analysis studied the general population but others studied specific groups, for example, adult or old individuals in China, Indians in Brazil etc. Therefore the data from those different sources may emphasize some risk factors related to those groups, and the readers must be warned about it.</p> <p>In general, the work is very contributive to give a global perspective on this very common ocular disease.</p> |
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VERSION 1 – AUTHOR RESPONSE

The English needs to be improved. We recommend either asking for help from a native English-speaking colleague or using a language editing agency. Please record any editorial assistance in the acknowledgements section of the manuscript.

Answer: thanks for your suggestion. We have revised these errors and asked our foreign teachers to check it. In addition, we have recorded the editorial assistance in the acknowledgements section of the manuscript.

Reviewer Name Victoria Allgar
Institution and Country University of York, England
Please state any competing interests or state 'None declared': None declared

I have focused on the statistical analysis in the paper:

In the results section, prevalence rates comparing males and females, unilateral vs bilateral, china papers. age and latitude are shown. There is no statistical comparison of the subgroups. Forest plots could be shown for the sub-group analysis, or at least a summary table of the data with the significance test results. As there are some apparent differences a meta regression could be used here.

Answer: thanks for your suggestion. We have given a summary table of the data with the significance test results as your suggestion.

The funnel plot of the overall pooled prevalence of pterygium is shown in Figure 4. There needs to be

narrative to provide interpretation of this graph and implications. They state that "There was no significant publication bias in this meta-analysis," BUT THE FUNNEL PLOT DOESN'T SHOW THIS.

Answer: thanks for your suggestion. We have checked the data again, and provided interpretation of this graph and implications in results section.

It is unclear why at the end of the results section a sub-analysis of 6 papers is presented, when these issues have been addressed in the preceding analysis.

Answer: thanks for your suggestion, and in this section, we showed the OR analysis for pterygium.

Overall the paper is OK but could warrant a little more detail in the presentation and statistical tests of sub-groups.

Answer: thanks for your suggestion and we have modified it as your suggestion.

Reviewer Name Eduardo Rocha
Institution and Country FMRP-USP
Brazil

Please state any competing interests or state 'None declared': None declared

The authors bring this manuscript aimed to investigate the pooled prevalence and risk factors for pterygium in the world, using meta-analysis. They used 20 out of 138 peer-reviewed articles in the period of 2000 and 2012, either in English or Chinese.

The major findings were that the whole prevalence is around 10% of the population, and the risk factors are aging, male gender, outdoor work and low latitude. In addition unilateral cases are more common than bilateral.

The work was well justified, use correct methods and the text is clear and concise.

Minor suggestions

Line 29, page 5 (PDF version): please rephrase:

Although disorders of the conjunctiva of unknown etiology for pterygium, it seems to be associated between outdoor work and pterygium formation

Answer: thanks for your suggestion and we have modified it as your suggestion.

Discussion: several findings were repeated in this session and that is not necessary (Ex; line 47-53 of page 10). Also the authors mention that publications reviewed were in the range of 2000 and 2013 (line 51, page 11). This is in conflict with the period mentioned in Methods session (line 22, page 7: 2000-2012).

Answer: thanks for your suggestion and we have deleted the repeat findings and modified the conflicting errors as your suggestion.

The major weakness that should be mentioned in the discussion is that some of the selected papers used in the analysis studied the general population but others studied specific groups, for example, adult or old individuals in China, Indians in Brazil etc. Therefore the data from those different sources may emphasize some risk factors related to those groups, and the readers must be warned about it.

Answer: thanks for your suggestion. As your comments, we have given the Meta-analysis for prevalence of pterygium in different age groups.

In general, the work is very contributive to give a global perspective on this very common ocular disease.

Correction: *Geographical prevalence and risk factors for pterygium: a systematic review and meta-analysis*

Liu L, Wu J, Geng J, *et al.* Geographical prevalence and risk factors for pterygium: a systematic review and meta-analysis. *BMJ Open* 2013;3:e003787. doi: 10.1136/bmjopen-2013-003787

In the abstract, the sentence:

“We found a trend that the higher pooled prevalence of pterygium was associated with increasing geographical latitude and age in the world.”
should read:

“We found a trend that the higher pooled prevalence of pterygium was associated with decreasing geographical latitude and age in the world.”

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